Appendix A
Draft IS/MND and Updated Mapbook

Appendix A.1: Draft IS/MND

CALIFORNIA PUBLIC UTILITIES COMMISSION

SAN DIEGO GAS & ELECTRIC
SAN MARCOS TO ESCONDIDO
TIE LINE (TL) 6975 69kV PROJECT

Draft Initial Study/Mitigated Negative Declaration

April 2019

A.17-011-010

Prepared for:
California Public Utilities Commission

Prepared by:
Environmental Science Associates

ESA

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TABLE OF CONTENTS

San Diego Gas and Electric's San Marcos to Escondido Tie Line (TL) 6975 69kV Project (CPUC A.17-11-010)

Page

Acronyms and Abbreviations v

Executive Summary ES-1
Introduction ES-1
Project Description ES-1
Environmental Determination ES-2

Chapter 1, Introduction 1-1
1.1 CEQA Process 1-4
1.2 Public Review Process 1-4
1.3 CPUC Jurisdiction 1-4
1.4 References 1-5

Chapter 2, Project Description 2-1
2.1 Introduction 2-1
2.2 Project Location and Overview 2-2
2.3 Existing System 2-14
2.4 Project Components 2-17
2.5 Project Construction 2-26
2.6 Operation and Maintenance 2-54
2.7 Anticipated Permits and Approvals 2-56
2.8 Applicant Proposed Measures 2-57
2.9 Electric and Magnetic Fields Summary 2-61
2.10 References 2-62

Chapter 3, Environmental Checklist and Discussion 3-1
3.1 Aesthetics 3.1-1
3.2 Agriculture and Forestry Resources 3.2-1
3.3 Air Quality 3.3-1
3.4 Biological Resources 3.4-1
3.5 Cultural Resources 3.5-1
3.6 Energy Conservation 3.6-1
3.7 Geology, Soils, Seismicity and Paleontological Resources 3.7-1
3.8 Greenhouse Gas Emissions 3.8-1
3.9 Hazards and Hazardous Materials 3.9-1
3.10 Hydrology and Water Quality 3.10-1
3.11 Land Use and Planning 3.11-1
3.12 Mineral Resources 3.12-1

Page

Chapter 3, Environmental Checklist and Discussion (continued)

3.13 Noise 3.13-1
3.14 Population and Housing 3.14-1
3.15 Public Services 3.15-1
3.16 Recreation 3.16-1
3.17 Transportation and Traffic 3.17-1
3.18 Tribal Cultural Resources 3.18-1
3.19 Utilities and Service Systems 3.19-1
3.20 Wildfire 3.20-1
3.21 Mandatory Findings of Significance 3.21-1

Chapter 4, Report Preparers 4-1

Chapter 5, Mitigation Monitoring, Reporting and Compliance Program 5-1

Appendices

A. Route Mapbook A-1
B. Public Noticing/Mailing List B-1
C. Air Quality, Greenhouse Gas, and Energy C-1
D. Biological Resources D-1

List of Figures

2-1 Regional Location 2-4
2-2 Project Location 2-5
2-3 Project Alignment Key Map 2-7
2-4 Segment 1 2-9
2-5 Segment 2 2-11
2-6a Segment 3 – West 2-12
2-6b Segment 3 – East 2-13
2-7 San Marcos Substation 2-15
2-8 Escondido Substation 2-16
2-9 Typical Pole Types 2-18
2-10 AC Interference Mitigation System 2-24
2-11 Staging Yards 2-37
2-12 Typical Micropile Foundation 2-40
2-13 Typical Construction Stringing Activity 2-43
2-14 Typical Duct Bank 2-49
3.1-1 Key Observation Point and Viewpoint Locations 3.1-4
3.1-2 VP 1, View of San Marcos Substation from Discovery Street – Looking Northeast 3.1-5
3.1-3 KOP A, West San Marcos Boulevard & Discovery Street – Looking West 3.1-6
3.1-4 KOP B, West San Marcos Boulevard & South Rancho Santa Fe Road – Looking East 3.1-7
3.1-5 KOP C, West San Marcos Boulevard & Acadia Street – Looking East 3.1-8
3.1-6 VP 2, View from Palomar Airport Road – Looking Southeast 3.1-9
3.1-7 KOP D, White Sands Drive & Sea Island Place – Looking Southeast 3.1-9
3.1-8 KOP E, Brookside Court – Looking Northwest 3.1-10
3.1-9 VP 3, View of Segment 3 from Cooper Creek Apartments South Parking Lot – Looking South 3.1-11

Page

List of Figures (continued)

3.1-10 VP 4, View of Escondido Substation from Citracado Parkway – Looking North 3.1-11
3.1-11 KOP A Existing and Proposed Conditions at West San Marcos Boulevard & Discovery Street – Looking West 3.1-21
3.1-12 KOP B Existing and Proposed Conditions at West San Marcos Boulevard & South Rancho Santa Fe Road – Looking East 3.1-22
3.1-13 KOP C Existing and Proposed Conditions at West San Marcos Boulevard & Acadia Street – Looking East 3.1-23
3.1-14 KOP D Existing and Proposed Conditions at White Sands Drive & Sea Island Place – Looking Southeast 3.1-25
3.1-15 KOP E Existing and Proposed Conditions at Brookside Court – Looking Northwest 3.1-26
3.2-1 Farmland Mapping and Monitoring Program: Important Farmland 3.2-3
3.4-2a CNDDB Occurrences: Western Project Area 3.4-14
3.4-2b CNDDB Occurrences: Eastern Project Area 3.4-15
3.4-2c CNDDB Occurrences: Southern Project Area 3.4-16
3.7-1 Geologic Units in the Study Area 3.7-4
3.7-2 Expansive Soils 3.7-6
3.7-3 Corrosive Soils 3.7-8
3.7-4 Active Faults 3.7-10
3.7-5 Landslide Potential 3.7-13
3.10-1 Surface Hydrology and 100 Year Flood Zones in the Project Vicinity 3.10-3
3.13-1 Noise Measurement Locations 3.13-8
3.20-1 Designated Wildfire Hazard Zones 3.20-3
3.21-1 Cumulative Projects 3.21-4

List of Tables

ES-1 Anticipated Potential Permit, Approval, and Consultation Requirements ES-3
ES-2 Environmental Impacts with Implementation of Applicant Proposed Measures and Mitigation Measures ES-5
1-1 Resource-Specific Study Area 1-2
2-1 Project Summary 2-3
2-2 Project Pole/Structure Summary 2-19
2-3 New Rights of Way Requirements 2-25
2-4 Power Line Construction Schedule 2-26
2-5 Anticipated Construction Equipment 2-28
2-6 Estimated Construction Equipment and Personnel 2-29
2-7 Permanent Working Areas 2-33
2-8 Temporary Working Areas 2-33
2-9 Access Road Characteristics 2-34
2-10 Potential Staging Yards 2-36
2-11 Minimum Conductor Ground Clearance 2-44
2-12 Standard Destination of Retired Project Components 2-53
2-13 Anticipated Potential Permit, Approval, and Consultation Requirements 2-57
2-14 Applicant Proposed Measures 2-58
3.1-1 Summary of Project Components, Primary Viewers, Representative Photographs, and Visual Simulations 3.1-3
3.1-2 Guidelines for Determining Adverse Aesthetic Impact Significance 3.1-16
3.1-3 Scenic Vistas 3.1-17

Page

List of Tables (continued)

3.3-1 San Diego Air Basin Criteria Pollutant Attainment Status 3.3-4
3.3-2 Local Ambient Air Quality Data Summary (2013-2017) 3.3-4
3.3-3 National and State Ambient Air Quality Standards 3.3-7
3.3-4 Maximum Daily Construction Emissions Summary 3.3-11
3.4-1 Vegetation Communities within the BSA 3.4-3
3.4-2 Special-Status Wildlife Species with Potential to Occur in the BSA 3.4-10
3.4-3 Potential for Special-Status Plant Species to Occur in the BSA 3.4-17
3.4-4 Impacts on Special-Status Plant Species 3.4-32
3.4-5 Impacts on Vegetation Communities 3.4-43
3.5-1 Resources within and Adjacent to the Study Area 3.5-11
3.5-2 Summary of Potential Project Impacts on Historical Resources 3.5-31
3.5-3 Summary of Project Impact on Unique Archaeological Resources 3.5-37
3.6-1 SDG&E Electric Resources 3.6-2
3.6-2 Electricity Consumption in SDG&E Service Area (2017) 3.6-2
3.7-1 Geologic Units in the Study Area 3.7-3
3.7-2 Faults in Proximity to the Study Area 3.7-9
3.8-1 California GHG Emissions 3.8-3
3.8-2 Proposed Project Construction GHG Emissions 3.8-10
3.8-3 Project Amortized Annual Emissions 3.8-11
3.9-1 Schools within 0.25 Mile of the Project Site 3.9-3
3.10-1 Designated Beneficial Uses of Water Bodies in the Study Area 3.10-5
3.10-2 303(d) List of Impaired Water Bodies in the Study Area 3.10-6
3.12-1 California Mineral Land Classification System 3.12-2
3.13-1 24-hour Long-Term Ambient Noise Measurements 3.13-6
3.13-2 30-Minute Short-Term Ambient Noise Measurements 3.13-7
3.13-3 County of San Diego Noise Compatibility Guidelines 3.13-10
3.13-4 County of San Diego Noise Compatibility Guidelines 3.13-11
3.13-5 County of San Diego Sound Level Limits 3.13-12
3.13-6 Maximum Sound Level Limits for Impulsive Noise 3.13-12
3.13-7 City of Escondido Sound Level Limits 3.13-13
3.13-8 City of San Marcos Sound Level Limits 3.13-15
3.13-9 City of Carlsbad Allowable Noise Exposure 3.13-16
3.13-10 City of Carlsbad Performance Standards for Non-Transportation Sources 3.13-16
3.13-11 City of Vista Applicable Exterior Property Line Limits 3.13-18
3.13-12 Typical Maximum Construction Equipment Noise Levels 3.13-20
3.13-13 Construction Equipment Noise Levels 3.13-22
3.13-14 Vibration Source Levels from Construction Equipment 3.13-27
3.13-15 Vibration Source Levels from Blasting 3.13-28
3.14-1 Projected Population Growth, 2012 – 2050 ..... 3.14-2
3.14-2 2017 Housing Data Estimates 3.14-2
3.15-1 Existing School Districts in the Study Area 3.15-5
3.16-1 Parks and Recreational Trails in the Study Area 3.16-3
3.17-1 Summary of Study Area Roadway Characteristics 3.17-3
3.17-2 Level of Service Definitions 3.17-4
3.17-3 Transit Lines within the Study Area 3.17-6
3.18-1 Summary of AB 52 Consultation 3.18-2
3.18-2 Summary CEQA Courtesy Outreach 3.18-3
3.19-1 Study Area Landfills 3.19-3
3.20-1 Cumulative Scenario 3.21-5
5-1 Mitigation Monitoring, Reporting, and Compliance Program for the SDG&E San Marcos to Escondido TL6975 69kV Project 5-9

ACRONYMS AND ABBREVIATIONS

µg/m^3	micrograms per cubic meter
AB	Assembly Bill
AC	alternating current
ACHP	Advisory Council on Historic Preservation
ACSR	aluminum conductor steel reinforced
ACSS	aluminum conductor steel supported
ADA	Americans with Disabilities Act
ADT	Average Daily Traffic
AEC	Advantage Environmental Consultants
Air Basin	San Diego Air Basin
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
ALS	Advanced Life Support
AMS	Alternative Management Standards
amp	ampere
amsl	above mean sea level
AOI	Area of Interest
A-P Zone	Alquist-Priolo Earthquake Fault Zone
APLIC	Avian Power Line Interaction Committee
APM	Applicant Proposed Measure
ASCE	American Society of Civil Engineers
Basin Plan	Water Quality Control Plan for the San Diego Basin
BBN	undefined in 3.13 Noise, page 47
BGEPA	Bald Eagle and Golden Eagle Protection Act
BMP	Best Management Practice
BOE	Board of Equalization
B.P.	before present
BSA	biological study area
Business Plan Act	California Hazardous Materials Release Response Plan and Inventory Law
C&D	Construction and Demolition
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFÉ	Corporate Average Fuel Economy
CAISO	California Independent System Operators
CALGreen	California's Green Building Standards Code
CalEEMod	California Emissions Estimator Model

Cal/EPA	California Environmental Protection Agency
CalOES	California Office of Emergency Services
Cal/OSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CaRFG	California Reformulated Gasoline
CAL FIRE	California Department of Forestry and Fire Protection
CAP	Congested Area Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CEA	California Earthquake Authority
CEC	California Energy Commission
CCA	Community Choice Aggregation
CCR	California Code of Regulations
CDC	California Department of Conservation
CDFW	California Department of Fish and Wildlife
CDP	Carlsbad Desalination Plant
CDPH	California Department of Public Health
CE	State-listed Endangered Species
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Information System
CESA	California Endangered Species Act
CFN	Commercial Fueling Network
CFP	California Fully Protected
CFPP	Construction Fire Prevention Plan
CFR	Code of Federal Regulations
CFPP	Construction Fire Prevention Plan
CGP	California Construction General Storm Water Discharge Permit
CGS	California Geological Survey
CH_4	methane
CHP	California Highway Patrol
CHRIS	California Historical Resources Information System
CIP	Capital Improvement Projects
CMP	Congestion Management Plan
CMWD	Carlsbad Municipal Water District
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
COS	Conservation and Open Space
CPUC	California Public Utilities Commission
CR	State-listed Rare Species

CRHR	California Register of Historical Resources
CRMP	Cultural Resources Monitoring Plan
CRPR	California Rare Plant Rank
CUPA	Certified Unified Program Agency
CWA	Federal Water Pollution Control Act (Clean Water Act)
cy	cubic yards
dB	decibel
dBA	A-weighted decibel
DC	direct current
DEH	Department of Environmental Health
DMP	Debris Management Plan
DOC	California Department of Conservation
DOF	California Department of Finance
DOGGR	California Division of Oil, Gas, and Geothermal Resources
(US)DOT	United States Department of Transportation
DPM	Diesel Particulate Matter
Ds	square-root scaled distance
DTSC	United States Department of Toxic Substance Control
DWQ	Division of Water Quality
E-CAP	Escondido Climate Action Plan
EDD	Employment Development Department
EIA	United States Energy Information Administration
EIR	Environmental Impact Report
ELF	extremely low frequency
EMF	electric and magnetic fields
EPCRA	Emergency Planning and Community Right-to-Know Act
ESA	Environmental Science Associates
EWA	Encina Wastewater Authority
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulations
FC	Candidate for Federal Listing
FE	Federally Endangered
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FMMP	Farmland Mapping and Monitoring Program
FPA	Focused Planning Area
FR	Federal Register
FT	Federally Threatened Species
FTA	Federal Transit Authority
FTZ	Fire Threat Zones
GHG	greenhouse gas
GIS	Geographic Information System

GO	General Order
Guidelines	Greenway Guidelines
GSAs	groundwater sustainability agencies
GSPs	groundwater sustainability plans
GWh	Gigawatt-hours
HARRF	Hale Avenue Resource Recovery Facility
HFC	hydrofluorocarbon
HMBP	Hazardous Materials Business Plan
HOA	Homeowners Association
hrs	hours
HRFA	Highest Risk Fire Areas
HSWA	Hazardous and Solid Waste Act
HWCL	Hazardous Waste Control Law
Hz	hertz
I	Interstate
IBC	International Building Code
ICC	International Code Council
IEPR	Integrated Energy Policy Report
ILAs	incidental landing areas
IPCC	Intergovernmental Panel on Climate Change
IS	Initial Study
IS/MND	Initial Study/Mitigated Negative Declaration
ITP	incidental take permit
IWMP	Integrated Waste Management Plan
K	K Factor
KOP	Key Observation Point
kV	kilovolt
kWh	kilowatt-hours
LADWP	Los Angeles Department of Water and Power
LEI	Lead Environmental Inspector
L_{dn}	day-night noise level
L_{eq}	equivalent sound level
L_{max}	maximum sound level
L_{min}	minimum sound level
LOS	Level of Service
LRAs	Local Responsibility Area
LU&S	Locally Unusual and Significant
LUST	Leaking Underground Storage Tank
MBTA	Migratory Bird Treaty Act
MCAS	Marine Corps Air Station
MCM	1000 circular mils (thousands of circular mils)

MEIR	maximum exposed individual resident
mg/m^3	milligrams per cubic meter
min	minute
MHCP	Multiple Habitat Conservation Plan
MJHMP	Multi-Jurisdictional Hazard Mitigation Plan
MLD	Most Likely Descendant
MMRCP	Mitigation Monitoring, Reporting, and Compliance Program
MND	Mitigated Negative Declaration
MRDS	Mineral Resources Data System
MRZ	Mineral Resource Zone
MS4	municipal separate storm sewer system
MSCP	Multiple Species Conservation Program
MW	megawatt
N_2O	nitrous oxide
N/A	Not Applicable
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NASEO	National Association of State Energy Officials
NCCP	Natural Community Conservation Planning
NCTD	North County Transit District
NECPA	National Energy Conservation Policy Act
NERC	North American Electric Reliability Corporation
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic and Safety Administration
NO_2	nitrogen dioxide
NOC	Notice of Completion
NOI	Notice of Intent
NOP	Notice of Preparation
NO_x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NRPA	National Recreation and Park Association
NSA	noise-sensitive area
O_3	ozone
O&M	Operation and Maintenance
OA	Operational Area
OEHHA	Office of Environmental Health Hazard Assessment
OES	Office of Emergency Services
OHP	Office of Historic Preservation
OHWM	Ordinary High Water Mark
OMWD	Olivenhain Municipal Water District
OSHA	Occupational Safety and Health Administration

PAMA	preapproved mitigation areas
PCA	passenger car equivalent
PEA	Proponent's Environmental Assessment
PFC	perfluorocarbon
PG&E	Pacific Gas & Electric Company
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
PPV	peak particle velocity
ppm	parts per million
PRMMP	Paleontological Resources Monitoring and Mitigation Plan
Project	San Marcos-Escondido Tie Line 6975 69kV Project
PSD	Prevention of Significant Deterioration
PSFS	Public Safety, Facilities, and Services Element
PSR	pre-activity survey report
PTC	Permit to Construct
Pub. Res. Code	Public Resources Code
PVC	polyvinyl chloride
RAQS	Regional Air Quality Strategy
RCRA	Resource Conservation and Recovery Act
RCS	Resource Conservation Strategy
ROG	reactive organic gases
RPS	Renewables Portfolio Standard
ROW	right(s)-of-way
RWQCB	Regional Water Quality Control Board
SANDAG	San Diego Association of Governments
SanGIS	San Diego Geographic Information Source
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCEC	Southern California Earthquake Center
SCIC	South Coastal Information Center
SDAPCD	San Diego Air Pollution Control District
SDCG&E	San Diego Consolidated Gas and Electric Company
SDCWA	San Diego County Water Authority
SDG&E	San Diego Gas and Electric Company
SDMP	Soil and Dewatering Management Plan
SDNHM	San Diego Natural History Museum
SDS	Safety Data Sheets
SE	State Endangered under CESA
SEMS	California Standardized Emergency Management System
sec	second
SF_6	sulfur hexafluoride
SGMA	Sustainable Groundwater Management Act of 2014

SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SMARA	Surface Mining and Reclamation Act
SMARTS	Stormwater Multiple Applications and Report Tracking Systems
SO_2	sulfur dioxide
SOI	sphere of influence
SPCC	Spill Prevention and Control Countermeasures
SR	State Route
SRAs	State Responsibility Area
SSC	CDFW Species of Special Concern
SSD	solid state decouplers
ST	Threatened under CESA
STPs	shovel test probes
SVP	Society of Vertebrate Paleontology
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
TBD	to be determined
TCR	Tribal Cultural Resources
TEU	test excavation units
TL	Tie Line
TMDL	Total Maximum Daily Load
TPP	transmission planning process
TWW	Treated Wood Waste
UBC	Uniform Building Code
UCERF3	Uniform California Earthquake Rupture Forecast
USACE	United States Army Corps of Engineers
Unified Program	Unified Hazardous Waste and Hazardous Materials Management Regulatory Program
USC	United States Code
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	underground storage tank
UXO	Unexploded ordnance
VdB	vibration velocity in decibels
v/c	volume/capacity ratio
VID	Vista Irrigation District
VOCs	volatile organic compounds
VP	viewpoints
VWD	Vallecitos Water District

WDR	waste discharge requirement
WGCEP 2014	Working Group on California Earthquake Probabilities 2014
WL	CDFW Watch List

EXECUTIVE SUMMARY

Introduction

On November 15, 2017, San Diego Gas and Electric Company (SDG&E) submitted a Permit to Construct (PTC) Application (A.17-11-010) to the California Public Utilities Commission (CPUC) for the SDG&E San Marcos to Escondido Tie Line (TL) 6975 69 kV Project (Project). SDG&E proposes to install new overhead single-circuit electric power line structures, rebuild existing structures from single circuit to double circuit, and perform the reconductoring and re-energizing of existing conductors, pursuant to CPUC General Order (GO) 131-D. The PTC Application includes the Proponent's Environmental Assessment (PEA) prepared pursuant to Rule 2.4 of the CPUC's Rules of Practice and Procedure.

The Project is subject to the California Environmental Quality Act (CEQA). CEQA requires a lead agency – here, the CPUC – to prepare an Initial Study (IS) to determine if the Project may have a significant effect on the environment (CEQA Guidelines §15063(a)). If the agency determines there is substantial evidence that the Project may cause a significant effect on the environment, it shall prepare an Environmental Impact Report (EIR). The lead agency shall prepare a negative declaration if there is no substantial evidence that the Project may cause a significant effect on the environment (CEQA Guidelines §15063(b)). If the IS identifies potentially significant effects of the Project, but the applicant agrees to revisions that would avoid or mitigate the effects to a point where clearly no significant effects would occur, then a Mitigated Negative Declaration (MND) shall be prepared (Pub. Res. Code §§21064.5, 21080(c); 14 Cal. Code Regs. §§15064(f)(2), 15070(b)).

Based on the analysis in the IS and the substantial evidence supporting the analysis, it has been determined that all significant environmental impacts of the Project would be avoided or reduced to below the level of significance with the incorporation of feasible mitigation measures agreed to by SDG&E. For this reason, adoption of an IS/MND satisfies the requirements of CEQA.

Project Description

The Project is located primarily in the cities of San Marcos and Escondido and unincorporated areas in northern San Diego County, California. It would originate at the San Marcos Substation on the west and terminate at the Escondido Substation on the east and would be located within SDG&E right-of-way (ROW). To fully accommodate the Project, 1.2 acres of additional ROW would be acquired in San Marcos. Primary Project components include:

- A 69kV circuit breaker and concrete pad, 30-foot A-frame, seven piers, and two 69 kV 2,000-amp disconnects would be installed within the existing San Marcos Substation on Discovery Street in San Marcos;
- Rebuild Tie Line 680C, add Tie Line 6975 to create a double circuit, replace porcelain insulators with polymer insulators, and reconductor an existing 12 kV line for a distance of 1.8 miles west of the San Marcos Substation;
- Construct a new single circuit power line approximately 2.8 miles in length on new steel poles parallel to the existing Tie Line 13811/13825 within an existing 150-foot SDG&E ROW;
- Reconductor and re-energize approximately 7.4 miles of existing power line, as well as insulator replacement, in unincorporated San Diego County and Escondido;
- Removal of an oil containment wall and replacement of existing oil circuit breaker pad with a new gas circuit breaker, and a transfer of the existing overhead conductor from the 138kV rack to an existing 69kV bay position at the existing Escondido Substation site; and,
- Replacement of existing wood poles with new steel galvanized direct-bury and foundation poles, as well as the removal of some existing pole structures from service, along the entire Project alignment.

Environmental Determination

This IS/MND has been prepared to identify the potential environmental effects resulting from implementation of the Project, evaluate the level of significance of these effects, and identify the revisions in the Project (i.e., mitigations) that would avoid the effects or reduce them below established thresholds of significance. This IS/MND relies on information from SDG&E's Application for a PTC, the accompanying PEA, a Project site reconnaissance, SDG&E's responses to deficiency letters and data requests by the CPUC, and the environmental expertise of the CPUC's consultant, who has prepared this IS/MND.

In its PEA, SDG&E identified a number of Applicant Proposed Measures (APMs) to avoid or reduce potential impacts associated with the Project. In some instances, those APMs have been superseded by CPUC-recommended mitigation measures, as described in this IS/MND. Those APMs that have not been superseded are considered part of the Project for the purpose of this IS/MND and, upon adoption of the Final MND, would become part of the Mitigation Monitoring, Reporting, and Compliance Program to assure that implementation of and compliance with the APMs would be monitored and enforced by the CPUC. Based on the analysis documented in this IS/MND, in addition to implementation of APMs, mitigation measures are recommended for the following resource areas, to reduce impacts of the Project to a less-than-significant level:

- Biological Resources
- Cultural Resources
- Geology, Soils, Seismicity, and Paleontological Resources
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Noise
- Public Services
- Recreation
- Transportation and Traffic
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

The mitigation measures either supplement or supersede the APMs proposed by SDG&E. SDG&E has agreed to implement all of the recommended mitigation measures as part of the Project. Upon adoption of the Final MND, the recommended mitigation measures would become part of the Project Mitigation Monitoring, Reporting, and Compliance Program.

Environmental impacts, applicable APMs, and mitigation measures for the Project are provided in Chapter 3 of this IS/MND. **Table ES-2** at the end of this Executive Summary identifies the potentially significant environmental impacts of the Project and applicable APMs and recommended mitigation measures that reduce those impacts to a less-than-significant level. The draft Mitigation Monitoring, Reporting, and Compliance Plan included in Chapter 5 of this IS/MND will be updated if needed to reflect the CPUC's decision on the Project, including any revisions to the mitigation measures that must be implemented if the Project is approved.

Required Approvals

The Project would require federal and State permits associated with ground-disturbing work. Local permits also would be required for grading and construction within, under, or over roadways (**Table ES-1**).

TABLE ES-1
ANTICIPATED POTENTIAL PERMIT, APPROVAL, AND CONSULTATION REQUIREMENTS

Permit/Approval/Consultation	Agency	Jurisdiction/Purpose
Federal Agencies		
Congested Area Plan	Federal Aviation Administration (FAA)	Use of helicopters within populated areas will be coordinated with the FAA, as applicable.
State Agencies		
Permit To Construct (PTC)	CPUC	Overall project approval and CEQA review
NPDES–General Construction Permit	State Water Resources Control Board	Stormwater discharges associated with construction activities disturbing more than 1.0 acre of land.
Local Agencies[a]		
Encroachment Permit and Traffic Control Plan(s)	Cities of San Marcos, Carlsbad, Escondido, and San Diego County	Construction within, under, or over city roadways (West San Marcos Blvd, Palomar Airport Road, S Rancho Santa Fe Road, San Elijo Road, Country Club Road, Kauana Loa Drive, and Auto Park Way)

NOTES:

[a] Noise variance approvals are not included herein because SDG&E would meet and confer with local agencies where construction is anticipated to exceed noise limits published within the applicable local noise codes. Actual noise variances would not be procured; therefore, this process is not listed within this table.

SOURCE: SDG&E, 2017, 2018d.

Environmental Determination

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Based upon an Initial Study, it is determined that the proposed Project WOULD NOT HAVE a significant effect on the environment with the incorporation of the Applicant Proposed Measures (APMs) and mitigation measures (attached). The Initial Study is available for review at the CPUC, 505 Van Ness Avenue, San Francisco, California 94102.

Joyce Steingass
Project Manager
California Public Utilities Commission

3-26-19
Date

TABLE ES-2
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM)[a] and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.1 Aesthetics – Would the project:			
Impact 3.1.a: Have a substantial adverse effect on a scenic vista.	Less than Significant	None required	Less than Significant
Impact 3.1.b: Substantially damage scenic resources, including, but not limited to, tress, rock outcroppings, and historic buildings within a state scenic highway.	No Impact	None required	No Impact
Impact 3.1.c: Substantially degrade the existing visual character or quality of public views of the site and its surroundings, or since the project is in an urbanized area, whether it would conflict with applicable zoning and other regulations governing scenic quality.	Less than Significant	None required	Less than Significant
Impact 3.1.d: Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.	Less than Significant	None required	Less than Significant
3.2 Agricultural Resources – Would the project:			
Impact 3.2.a: Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.	No Impact	None required	No Impact
Impact 3.2.b: Conflict with existing zoning for agricultural use, or a Williamson Act contract.	No Impact	None required	No Impact
Impact 3.2.c: Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined in Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g).	No Impact	None required	No Impact
Impact 3.2.d: Result in the loss of forest land or conversion of forest land to non-forest use.	No Impact	None required	No Impact
Impact 3.2.e: 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	No Impact	None required	No Impact

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM)[a] and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.3 Air Quality – Would the project:			
Impact 3.3.a: Conflict with or obstruct implementation of the applicable air quality plan.	Less than Significant	None required	Less than Significant
Impact 3.3.b: Violate any air quality standard or result in a cumulatively considerable net increase in an existing or projected air quality violation.	Less than Significant	None required	Less than Significant
Impact 3.3.c: Expose sensitive receptors to substantial pollutant concentrations.	Less than Significant	None required	Less than Significant
Impact 3.3.d: Result in substantial emissions (such as odors or dust) adversely affecting a substantial number of people.	Less than Significant	None required	Less than Significant
3.4 Biological Resources – Would the project:			
Impact 3.4.a: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service	Significant	**APM BIO-1:** SDG&E will conduct all construction and operation and maintenance activities in accordance with NCCP Operational Protocols to avoid and minimize impacts on biological resources.	Less than Significant
		APM BIO-2: All earth-moving equipment will be free of mud and vegetative material before being mobilized onto work areas associated with the Project.	
		APM BIO-3: Except when not feasible due to physical or safety constraints, all Project construction vehicle movement will be restricted to the Project work areas, existing roads, and access roads constructed as a part of the Project and mapped by SDG&E in advance of construction. Approval from a biological monitor will be obtained prior to vehicle travel off of existing access roads.	
		APM BIO-4: Civil and land survey personnel will keep survey vehicles on existing roads. During Project surveying activities, brush clearing for footpaths, line-of-sight cutting, and land surveying panel point placement in sensitive habitat prior approval will be required from the Project's biological monitor. Hiking off roads or paths for survey data collection will be allowed year-round as long as all of the other applicable APMs are met.	
		APM BIO-5: Prior to the start of construction, the boundaries of sensitive plant populations that require protection will be delineated with clearly visible flagging or fencing by a qualified biologist. The flagging and/or fencing will be maintained in place for the duration of construction. Flagged and fenced areas will be avoided to the extent practicable during construction activities in that area. If impacts on sensitive plant species are unavoidable, SDG&E will perform soil and plant salvage activities to enhance recovery of these special-status plants, consistent with the provisions in the Enhancement Section 7.2.1 of the NCCP. These include the stockpiling of native soil in the area where Nuttall's scrub oak and wart-stemmed Ceanothus occur and top soil replacement after construction. Quality assurances and success criteria milestones for the restoration area as a whole will conform to the standards provided in Enhancement Section 7.2.1 of the NCCP.	

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM)[a] and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.4 Biological Resources – Would the project (cont.)			
Impact 3.4.a (cont.)		**APM BIO-6:** ***Coastal California Gnatcatcher.*** Prior to construction, SDG&E shall retain a qualified biologist to conduct surveys for the coastal California gnatcatcher in suitable habitat, to determine if any active nests are within or in the immediate vicinity of proposed construction activities. If feasible, SDG&E will avoid construction during the peak breeding season (February 15 – August 31) for coastal California gnatcatcher and migratory birds. When it is not feasible to avoid trimming or removal of vegetation or during the peak breeding season, SDG&E will perform a site survey in the area where the work is to occur. Trimming or removal of vegetation during the peak breeding season will require a preconstruction survey by a qualified biologist to confirm that active nests will not be affected. This survey will be performed to determine the presence or absence of nesting birds. If an active nest (i.e., containing eggs or young) is identified within the construction area during the survey, work will be temporarily halted and redirected away from the site. The qualified biologist in the field will determine a no-work buffer zone around the nest of sufficient size and dimensions that construction activities will not result in disturbance or direct removal of the active nest, or will not cause a breeding bird to abandon its nest. If the nesting and/or breeding activities are being conducted by a federal or state-listed species, SDG&E will consult with the USFWS and CDFW as necessary. Monitoring of the nest will continue until the birds have fledged or construction is no longer occurring on site. ***Migratory Birds.*** Trimming or removal of vegetation during the peak breeding season (February 15 to August 31) will require a pre-construction survey by a qualified biologist to confirm that active nests will not be affected. If an active nest is detected within the construction area during the survey, work will be temporarily halted and redirected away from the site. The qualified biologist in the field will determine a no-work buffer zone around the nest of sufficient size and dimensions that construction activities will not result in disturbance or direct removal of the active nest, or will not cause a breeding bird to abandon its nest.	
		APM BIO-7: If a raptor nest is observed during preconstruction surveys, a qualified biologist would determine if it is active. If the nest is determined to be active, the biological monitor would monitor the nest to ensure nesting activities and/or breeding activities are not substantially adversely affected. If the biological monitor determines that Project activities are disturbing or disrupting nesting and/or breeding activities, the monitor will make recommendations to reduce the noise and/or disturbance in the vicinity of the nest**.**	
		APM BIO-8: A biological monitor will be present during all ground-disturbing and vegetation removal activities. Immediately prior to initial ground-disturbing activities and/or vegetation removal, the biological monitor will survey the site to ensure that no special-status species will be impacted.	
		APM BIO-9: Wherever possible, vegetation will be left in place or mowed, instead of grubbed, to avoid excessive root damage and to allow for regrowth and to minimize soil erosion.	

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM)[a] and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.4 Biological Resources – Would the project (cont.)			
Impact 3.4.a (cont.)		**Mitigation Measure BIO-1: Project Compliance with the Federal and California Endangered Species Acts.** Prior to approval of the Notice to Proceed (NTP), SDG&E shall provide CPUC with a written commitment to implement its 1995 Subregional Natural Community Conservation Plan (NCCP) or 2017 Low Effect HCP (LEHCP), including proof that sufficient mitigation/take credits are assigned to the Project to cover potential impacts on all special-status plant and animal species present in the BSA or having moderate or high potential to occur in the biological study area (BSA). If there are not sufficient mitigation/take credits available in the NCCP or LEHCP at the time of NTP approval, then prior to the commencement of Project construction, SDG&E shall secure take authorization from the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW), as appropriate, for all federal and State-listed special-status plant and animal species present in the BSA or having moderate or high potential to occur in the BSA that are impacted by the Project. The conditions of these authorizations shall be equally or more effective than the protocols and practices included in the NCCP/LEHCP. SDG&E shall provide the CPUC with copies of these authorizations to show that compliance with permitting conditions would be equal to or more effective than the approved NCCP/LEHCP protocols and practices. SDG&E shall also submit to CPUC any monitoring reports, incident reports, etc., required by USFWS and/or CDFW when submitted to those agencies. **Mitigation Measure BIO-2: Establishment of Cylindrical Construction Buffers.** The biological monitor shall establish a three-dimensional cylinder-shaped buffer around active nests that have the potential to be affected by helicopter use or ground-based activities associated with helicopter use. A vertical buffer shall extend at least 300 feet vertically above the location of the nest and at least 300 feet horizontally for passerines (or 500 feet vertically and horizontally for raptors and 500 feet vertically and 0.5 mile horizontally for white-tailed kite). The biological monitor and SDG&E project manager shall monitor the helicopter tracks (i.e., flight patterns, durations) daily to ensure compliance with these established buffers. This buffer assumes the helicopter activities are temporary or infrequent in nature (no longer than one minute [e.g., pass-by] or visit the site once in a day). If helicopter work occurs in the vicinity of an active nest for an extended period of time, the biological monitor may determine, based on the nature of the work and nest monitoring observations, that the buffer is insufficient for the nest and adjust the buffer distance appropriately.	
Impact 3.4.b: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	Significant	Implement APMS BIO-1 through BIO-6, APM BIO-8, APM BIO-9, located above.	Less than Significant

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM)[a] and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.4 Biological Resources – Would the project (cont.)			
Impact 3.4.c: Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means	Significant	**Mitigation Measure BIO-3: Avoid Jurisdictional Resources.** To avoid impacts on jurisdictional areas, SDG&E and its contractor shall flag work area limits and work shall be restricted to the flagged limits. Additionally, silt fencing shall be installed on the side of the work area closest to the jurisdictional feature, to minimize construction-generated run-off or sedimentation. A qualified biologist shall verify that silt fencing and construction work is properly installed and are located outside of jurisdictional areas to confirm their avoidance. Monitoring shall take place during rain events to confirm the integrity of silt fencing and verify runoff does not enter jurisdictional areas.	Less than Significant
Impact 3.4.d: Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	Significant	Implement APMS BIO-1 through APM BIO-9 and Mitigation Measures BIO-1 through BIO-3, located above.	Less than Significant
Impact 3.4.e: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	No Impact	None required	No Impact
Impact 3.4.f: Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.	No Impact	None required	No Impact
3.5 Cultural Resources – Would the project:			
Impact 3.5.a: Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines §15064.5**.**	Significant	**Mitigation Measure CUL-1: Retention of Qualified Archaeologist.** Prior to the start of any ground disturbing activity, a Qualified Archaeologist, defined as an archaeologist meeting the Secretary of the Interior's Standards for professional archaeology (U.S. Department of the Interior, 2008) shall be retained by SDG&E to carry out all APMs and mitigation measures related to archaeological resources. **Mitigation Measure CUL-2: Pre-Construction Cultural Resources Sensitivity Training.** Prior to the start of any ground-disturbing activity, the Qualified Archaeologist shall prepare cultural resources sensitivity training materials for use during Project-wide Worker Environmental Awareness Training (or equivalent). The cultural resources sensitivity training shall be conducted by a qualified environmental trainer (often the Lead Environmental Inspector [LEI] or equivalent position) working under the supervision of the Qualified Archaeologist. The Qualified Archaeologist shall determine and ensure the suitability of the qualified environmental trainer. The cultural resources sensitivity training shall be conducted for all construction personnel. Construction personnel shall be informed of the types of archaeological resources that may be encountered, and of the proper procedures to be implemented in the event of an inadvertent discovery of archaeological resources or human remains. SDG&E shall ensure that construction personnel are made available for and attend the training and retain documentation demonstrating attendance.	Less than Significant

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM)[a] and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.5 Cultural Resources – Would the project (cont.)			
Impact 3.5.a (cont.)		**Mitigation Measure CUL-3: Development and Implementation of Cultural Resources Monitoring Plan.** Prior to the start of any Project-related ground disturbing activities the Qualified Archaeologist shall prepare a Cultural Resources Monitoring Plan (CRMP). The CRMP shall stipulate the location and timing of archaeological and Native American monitoring, including, but not limited to, the monitoring of all ground disturbing activities within 250 feet of P-37-032160 and within 100 feet of the remaining 10 archaeological resources (P-37-004495, -004499, -005501, -007306, -010551, -010550, -011442, -012209, -034831, and TL6975-S-5) that have the potential to contain or are known to contain subsurface archaeological deposits, as well as all ground disturbing activities within Segment 3 and the easternmost 500 feet of Segment 2. The CRMP shall include monitoring protocols to be carried out during Project construction. The CRMP shall stipulate that a Native American monitor associated with one or more of the Native American groups that have expressed interest in the Project (i.e. San Luis Rey Band of Mission Indians, Rincon Band of Luiseno Indians, and/or Santa Ysabel Band of the Iipay Nation) be retained to monitor all Project-related ground disturbance stipulated in the CRMP. In preparing the CRMP, the Native American groups that have expressed interest in monitoring shall be consulted regarding the scheduling of monitors. A Native American monitoring schedule shall be incorporated into the CRMP. The CRMP shall contain an allowance that the Qualified Archaeologist, based on observations of subsurface soil stratigraphy or other factors during initial grading, and in coordination with the Native American monitor(s) and SDG&E, may reduce or discontinue monitoring as warranted if it is determined that the possibility of encountering archaeological deposits is low. The CRMP shall outline the appropriate measures to be followed in the event of unanticipated discovery of cultural resources during Project implementation, including that all ground disturbance within 100 feet of an unanticipated discovery shall cease until a treatment plan is developed by the Qualified Archaeologist in coordination with SDG&E and the Native American monitor(s) and which will consider the resources archaeological and tribal value. The CRMP shall identify avoidance as the preferred manner of mitigating impacts to cultural resources. The CRMP shall establish the criteria utilized to evaluate the significance (per CEQA) of the discoveries, methods of avoidance consistent with CEQA Guidelines Section 15126.4(b)(3), as well as identify the appropriate treatment to mitigate the effect of the Project if avoidance of a significant resource is determined to be infeasible. The CRMP will also include provisions for the treatment of archaeological sites that qualify as unique archaeological resources pursuant to PRC Section 21083.2, which places limits on the costs of mitigation for unique archaeological resources. The plan shall also include reporting of monitoring results within a timely manner, curation of artifacts and data at an approved facility, and dissemination of reports to local and State repositories. The CRMP shall be submitted to SDG&E and CPUC for review and approval prior to the start of Project-related ground disturbance, as well as to the Native American groups that have expressed interest in the Project (i.e. San Luis Rey Band of Mission Indians, Rincon Band of Luiseno Indians, and/or Santa Ysabel Band of the Iipay Nation) for review and comment.	

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM)[a] and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.5 Cultural Resources – Would the project (cont.)			
Impact 3.5.a (cont.)		**Mitigation Measure CUL-4: Data Recovery Excavations at P-37-032160.** Prior to the start of any Project-related ground disturbing activities within 250 feet of archaeological site P-37-032160, data recovery excavations shall be carried out to collect scientifically consequential data associated with known resource P-37-032160 where Project-related ground disturbing activities including but not limited to pole replacement, trenching, potholing, and AC mitigation well and test station installations will be carried out. Prior to the start of the data recovery excavations, a research design shall be prepared by the Qualified Archaeologist outlining the research questions to be addressed as part of the data recovery, as well as the field and lab methods and any special studies proposed to obtain the scientifically consequential information. The research design shall be submitted to SDG&E and CPUC for review and approval prior to the start of the data recovery excavations, as well as to the San Luis Rey Band of Mission Indians for review and comment. A data recovery report presenting the methods and results of the data recovery excavations shall be prepared and reviewed by the CPUC and SDG&E, and submitted to the San Luis Rey Band of Mission Indians for review and comment. The final data recovery report shall be placed on file at the South Coast Information Center.	
		Mitigation Measure CUL-5: Exclusionary Fencing. Prior to Project-related ground disturbing activities, exclusionary fencing shall be installed to ensure that the five previously recorded archaeological sites within or immediately adjacent to the Project alignment that have surface manifestations (P-37-004495, -004499, -007306, -012209, and TL6975-S-5) are not inadvertently impacted during Project implementation. The exclusionary fencing shall encompass the mapped site boundaries plus a 25-foot radius to ensure an appropriate buffer is maintained between the sites and Project-related ground disturbing activities. For the four archaeological resources bisected by Project access roads (P-37-004495, -004499, -007306, and TL6975-S-5), the exclusionary fencing shall be established along the shoulder of the existing roads. To ensure avoidance, the exclusionary fencing shall be marked with signs indicating that staff associated with the Project are not to go beyond the limits of the fencing. The exclusionary fencing shall not identify the protected areas as demarcating archaeological resources in order to discourage unauthorized disturbance, vandalism, or collection of artifacts.	
		Mitigation Measure CUL-6: Pre-Construction Surveys. Prior to the start of Project-related ground disturbing activities, pre-construction surveys of the four archaeological sites bisected by existing access roads (P-37-004495, -004499, -007306, and TL6975-S-5) shall be conducted to map and collect all artifacts located within the road beds. Artifact mapping shall be conducted using a hand held GPS unit capable of sub-meter accuracy, and the final disposition of the artifacts shall be determined by SDG&E in coordination with the San Luis Rey Band of Mission Indians.	
		Mitigation Measure CUL-7: Road Maintenance within Archaeological Sites. During Project implementation, routine road maintenance, including but not limited to grading and blading, shall be avoided within the four archaeological sites bisected by existing access roads (P-37-004495, -004499, -007306, and TL6975-S-5). Should maintenance activities such as drainage or culvert repairs be required to stabilize the access road, all ground disturbing activities within 100 feet of the four archaeological sites shall be monitored as stipulated in the CRMP.	

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM)[a] and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.5 Cultural Resources – Would the project (cont.)			
Impact 3.5.b: Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5.	Significant	Implement Mitigation Measure CUL-1 through CUL-7, located above.	Less than Significant
Impact 3.5.c: Disturb any human remains, including those interred outside of dedicated cemeteries.	Significant	**Mitigation Measure CUL-8: Inadvertent Discovery of Human Remains.** If human remains are uncovered during Project construction, all work within 100 feet of the find shall be immediately halted, and the San Diego County coroner shall be contacted to evaluate the remains, and follow the procedures and protocols set forth in Section 15064.5(e)(1) of the CEQA Guidelines. If the County Coroner determines that the remains are Native American, the County Coroner shall contact the California Native America Heritage Commission (NAHC), in accordance with Health and Safety Code Section 7050.5(c), and Public Resources Code Section 5097.98 (as amended by AB 2641). The NAHC shall then identify a Most Likely Descendant (MLD) of the deceased Native American, who shall then help determine what course of action should be taken in the disposition of the remains. Per Public Resources Code Section 5097.98, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this section, with the MLD regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.	Less than Significant
3.6 Energy – Would the project:			
Impact 3.6.a: Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during construction or operation.	Less than Significant	None required	Less than Significant
Impact 3.6.b: Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	No Impact	None required	No Impact
3.7 Geology, Soils, Seismicity, and Paleontological Resources – Would the project:			
Impact 3.7.a.i: Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State	Less than Significant	None required	Less than Significant

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM)[a] and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.7 Geology, Soils, Seismicity, and Paleontological Resources – Would the project (cont.)			
Impact 3.7.a.ii: Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking**.**	Significant	**Mitigation Measure GEO-1: Geotechnical Report.** The structural requirements of the California Building Code (CBC) are applicable to certain structural components of the Project, including retaining walls, screen walls, fences, and control shelters. SDG&E and/or its contractors shall design such structures to comply with such CBC standards and shall adhere to and implement all design recommendations and parameters established in the Project's Geotechnical Investigation Report by GEOCON Inc. and the AC Interference Analysis & Mitigation System Design by ARK Engineering & Technical Services. In addition, SDG&E shall retain a California registered professional engineer(s) to prepare a supplemental geotechnical report. This report shall address specific geotechnical hazards that were not addressed in the Geotechnical Investigation Report, and provide recommendations for mitigating such hazards. The analysis in that report shall include, but not be limited to, the following: • Recommendations to address the liquefaction risk within the Quaternary alluvium along Segment 1 and 3, if any; • Recommendations to address the corrosive soils that are present along Segments 1 and 2, if any, which pose a risk to the concrete pier foundations and direct bury poles; • Recommendations to address the landslide potential along Segment 2, if any, where planned ground disturbing activities could trigger landslides; • Evaluation of the site-specific conditions and recommendations specific to micropiles where proposed, if final design includes the use of micropiles. The recommendations shall ensure that when incorporated, the Project shall not increase the potential for ground failure, slope instability, and/or landslides, and shall be resistant to damage from ground shaking, ground failure, corrosive soils, unstable slopes, and landslides. SDG&E shall submit the supplemental geotechnical report to the CPUC Project Manager for review and approval at least 30 days prior to the start of construction.	Less than Significant
Impact 3.7.a.iii: Directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.	Significant	Implement Mitigation Measure GEO-1, located above.	Less than Significant
Impact 3.7 a.iv: Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.	Significant	Implement Mitigation Measure GEO-1, located above.	Less than Significant
Impact 3.7.b: Result in substantial soil erosion or the loss of topsoil.	Less than Significant	None required	Less than Significant
Impact 3.7.c: Be located on geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.	Significant	Implement Mitigation Measure GEO-1, located above.	Less than Significant

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM)[a] and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.7 Geology, Soils, Seismicity, and Paleontological Resources – Would the project (cont.)			
Impact 3.7.d: Be located on expansive or corrosive soil, creating substantial direct or indirect risks to life or property	Significant	Implement Mitigation Measure GEO-1, located above.	Less than Significant
Impact 3.7.e: Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.	No Impact	None required	No Impact
Impact 3.7.f: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	Significant	**Mitigation Measure PALEO-1: Project Paleontologist.** SDG&E or its contractor shall retain a qualified professional paleontologist (qualified paleontologist) meeting the Society of Vertebrate Paleontology (SVP) standards as set forth in the "Definitions" section of Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources (2010) prior to the approval of demolition or grading permits. The qualified paleontologist shall attend the Project kick-off meeting and Project progress meetings on a regular basis, shall report to the site in the event potential paleontological resources are encountered, and shall implement the duties outlined in Mitigation Measures PALEO-2 through PALEO-4.	Less than Significant
		Mitigation Measure PALEO-2: Worker Training. Prior to the start of any ground disturbing activity (including vegetation removal, pavement removal, etc.), the qualified paleontologist shall prepare paleontological resources sensitivity training materials for use during Project-wide Worker Environmental Awareness Training (or equivalent). The paleontological resources sensitivity training shall be conducted by a qualified environmental trainer (often the Lead Environmental Inspector [LEI] or equivalent position) working under the supervision of the qualified paleontologist. In the event construction crews are phased, additional trainings shall be conducted for new construction personnel. The training session shall focus on the recognition of the types of paleontological resources that could be encountered within the Project site and the procedures to be followed if they are found, as outlined in the approved Paleontological Resources Monitoring and Mitigation Plan in Mitigation Measure PALEO-3. SDG&E and/or its contractor shall retain documentation demonstrating that all construction personnel attended the training prior to the start of work on the site, and shall provide the documentation to the CPUC Project Manager upon request.	
		Mitigation Measure PALEO-3: Paleontological Monitoring. The qualified paleontologist shall prepare, and SDG&E and/or its contractors shall implement, a Paleontological Resources Monitoring and Mitigation Plan (PRMMP). SDG&E shall submit the plan to the CPUC Project Manager for review and approval at least 30 days prior to the start of construction. This plan shall address specifics of monitoring and mitigation and comply with the recommendations of the SVP (2010), as follows. • The qualified paleontologist shall identify, and SDG&E or it contractor(s) shall retain, qualified paleontological resource monitors (qualified monitors) meeting the SVP standards (2010).	

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM)[a] and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.7 Geology, Soils, Seismicity, and Paleontological Resources – Would the project (cont.)			
Impact 3.7.f (cont.)		• The qualified paleontologist and/or the qualified monitors under the direction of the qualified paleontologist shall conduct full-time paleontological resources monitoring for all ground-disturbing activities in previously undisturbed sediments in the Project site that have high paleontological sensitivity. This includes any depth of excavation into the Santiago Formation, as well as excavations that exceed 10 feet in depth in areas mapped as young alluvial floodplain deposits that overlie the Santiago Formation. The PRMMP shall clearly map these portions of the Project based on final design provided by SDG&E and/or its contractor(s). • If many pieces of heavy equipment are in use simultaneously but at diverse locations, each location will need to be individually monitored. • Monitors shall have the authority to temporarily halt or divert work away from exposed fossils in order to evaluate and recover the fossil specimens, establishing a 50-foot buffer. • If construction or other Project personnel discover any potential fossils during construction, regardless of the depth of work or location and regardless of whether the site is being monitored, work at the discovery location shall cease in a 50-foot radius of the discovery until the qualified paleontologist has assessed the discovery and made recommendations as to the appropriate treatment. • The qualified paleontologist shall determine the significance of any fossils discovered, and shall determine the appropriate treatment for significant fossils in accordance with the SVP standards. The qualified paleontologist shall inform SDG&E of these determinations as soon as practicable. See Mitigation Measure PALEO-4 regarding significant fossil treatment. • Monitors shall prepare daily logs detailing the types of activities and soils observed, and any discoveries. The qualified paleontologist shall prepare a final monitoring and mitigation report to document the results of the monitoring effort and any curation of fossils. SDG&E shall provide the daily logs to the CPUC Project Manager upon request, and shall provide the final report to the CPUC Project Manager upon completion. **Mitigation Measure PALEO-4: Significant Fossil Treatment.** If any find is deemed significant, as defined in the SVP standards (2010) and following the process outlined in Mitigation Measure PALEO-3, the qualified paleontologist shall salvage and prepare the fossil for permanent curation with a certified repository with retrievable storage following the SVP standards.	
3.8 Greenhouse Gas Emissions – Would the project:			
Impact 3.8.a: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.	Less than Significant	None required	Less than Significant
Impact 3.8.b: Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	No Impact	None required	No Impact

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM)[a] and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.9 Hazards and Hazardous Materials – Would the project:			
Impact 3.9.a: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials**.**	Less than Significant	**APM HAZ-1:** A Health and Safety Plan will be prepared and implemented during construction. The Health and Safety Plan will describe the anticipated hazards that construction workers may encounter while working on the Project, the safety measures that must be taken to address those hazards, and the necessary training requirements for personnel working on the Project. Safety hazards and applicable federal and state occupational standards will be identified in conjunction with the development of appropriate response actions, as well as a protocol for accident reporting. The Health and Safety Plan will also identify security and safety requirements for staging areas, storage yards, excavation areas, and any other areas of the Project where hazards may exist during construction activities. In addition, information regarding medical kits, safety equipment, and evacuation procedures will be outlined in the Health and Safety Plan. A qualified safety field representative will be present on site to observe and document adherence to the Health and Safety Plan as needed. The Health and Safety Plan will be prepared by the SDG&E construction contractor and will be available immediately prior to construction.	Less than Significant
Impact 3.9b: Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	Significant	Implement APMs TRA-1 and TRA-**2**, which can be found in *Transportation and Traffic,* located below. **Mitigation Measure HAZ-1: Soil and Dewatering Management Plan.** SDG&E and the contractor conducting soil excavation and (if needed) dewatering shall develop and implement a Soil and Dewatering Management Plan (SDMP) that describes the procedures for managing excavated soil and groundwater generated from dewatering activities. The SDMP shall include procedures for monitoring soil for possible contamination, identifying the specific stockpiling locations and measures to contain the stockpiled soil to prevent run on and run off, and materials disposal specifying how the construction contractor(s) will remove, handle, transport, and dispose of all excavated materials in a safe, appropriate, and lawful manner. The SDMP shall specify the contractor will segregate and dispose of soil with chemical concentrations above regulatory standards. Soil with chemical concentrations below regulatory standards may be reused or recycled. Soil with chemical concentrations above regulatory standards shall be disposed of in accordance with the applicable provisions of Cal. Code Regs. Title 22, Chapter 11, Article 3, Section 66261 (i.e., Class III (non-hazardous waste), Class II (non-hazardous and "designated" waste), or Class I (non-hazardous and hazardous waste)). The SDMP must identify protocols for soil testing and disposal, identify the approved disposal sites, and include written documentation that the disposal site can accept the waste. The contractor shall include procedures for the safe and legal disposal of groundwater generated from dewatering, if any. The procedures shall include water sampling and testing procedures to quantify chemical concentrations in the water, and dispose of the water in a safe and legal manner. Note that the disposal of groundwater generated from dewatering may be disposed of under the State's VOC and Fuel General Permit, depending on chemical concentrations and local sanitary sewer acceptance criteria. Contract specifications shall mandate full compliance with all applicable local, State, and federal regulations related to the identification, transportation, and disposal of hazardous materials, including those encountered in soil and groundwater. This SDMP shall be submitted to CPUC for review and approval prior to commencement of construction.	Less than Significant

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM)[a] and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.9 Hazards and Hazardous Materials – Would the project (cont.)			
Impact 3.9.c: Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.	Significant	Implement Mitigation Measure HAZ-1, located above.	Less than Significant
Impact 3.9.d: Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.	Significant	Implement Mitigation Measure HAZ-1, located above.	Less than Significant
Impact 3.9.e: Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area	Less than Significant	None required	Less than Significant
Impact 3.9.f: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	Less than Significant	Implement APMs TRA-1 and TRA-2, which can be found in *Transportation and Traffic,* located below.	Less than Significant
Impact 3.9.g: Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.	Significant	Implement Mitigation Measure WIL-1, which can be found in *Wildfire*, located below.	Less than Significant
3.10 Hydrology and Water Quality – Would the project:			
Impact 3.10.a: Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.	Significant	Implement Mitigation Measure HAZ-1: Soil and Dewatering Management Plan, which can be found in *Hazards and Hazardous Materials*, located above.	Less than Significant
Impact 3.10.b: Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	Less than Significant	None required	Less than Significant
Impact 3.10.c.i: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site.	Less than Significant	None required	Less than Significant
Impact 3.10.c.ii: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite.	Less than Significant	None required	Less than Significant

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM)[a] and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.10 Hydrology and Water Quality – Would the project (cont.)			
Impact 3.10.c.iii: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	Less than Significant	None required	Less than Significant
Impact 3.10.c.iv: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows.	No Impact	None required	No Impact
Impact 3.10.d: In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.	Less than Significant	None required	Less than Significant
Impact 3.10.e: Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	Less than Significant	None required	Less than Significant
3.11 Land Use – Would the project:			
Impact 3.11.a: Physically divide an established community.	No Impact	None required	No Impact
Impact 3.11.b: Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	No Impact	None required	No Impact
3.12 Mineral Resources – Would the project:			
Impact 3.12.a: Whether the Project would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.	Less than Significant	None required	Less than Significant
Impact 3.12.b: Whether the Project would result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.	No Impact	None required	No Impact

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM)[a] and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.13 Noise – Would the project:			
Impact 3.13.a: Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	Significant	**APM NOI-1:** Construction activities will occur during the times established by the local ordinances, with the exception of certain activities where nighttime and weekend construction activities are necessary, including, but not limited to, construction work timeframes mandated by permit, pouring of foundations, and pulling of the conductor, which require continuous operation or must be conducted during off-peak hours per agency requirements. SDG&E will meet and confer with the applicable jurisdiction to discuss temporarily deviating from the requirements of the noise ordinance, as described in the noise variance process. **Mitigation Measure NOI-1: Construction Noise Reduction and Mitigation Plan.** To reduce daytime noise impacts due to Project construction near sensitive receptors, SDG&E shall develop and implement a Construction Noise Reduction and Mitigation Plan (Plan). The Plan shall be submitted to the CPUC at least 14 days prior to the commencement of construction activities for review and approval. The Plan shall include a requirement for SDG&E to administer a noise monitoring program when construction activities are conducted within 100 feet of sensitive receptor locations to ensure that the provisions of the Plan, including those identified below, are effective in reducing construction noise levels at sensitive receptor locations to 75 dBA L_{eq} or less. The Plan shall present specific measures that identify how the construction noise limit of 75 dBA as an hourly L_{eq} at nearby sensitive receptor locations will be adhered to, how potential exceedances will be documented and corrected, and how impacts on sensitive receptors from exceedances that cannot be corrected or avoided will be mitigated, including but not limited to the following measures: ***Noise Reduction*** The following measures shall apply to construction activities within 100 feet of sensitive receptor locations: • Impact tools (e.g., jack hammers, pavement breakers, and rock drills) shall be hydraulically or electrically powered where feasible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dB. External jackets on the tools themselves shall be used where feasible; this could achieve a reduction of 5 dB. Quieter procedures, such as use of drills rather than impact tools, shall be used whenever feasible. • When construction activities that could potentially exceed 75 dBA are conducted, construction equipment and trucks shall be equipped with enhanced noise control measures (where feasible and reasonably available). Enhanced noise control measures shall be identified in the Plan and could include, but are not limited to, improved exhaust mufflers and intake silencers, engine enclosures, noise shields or shrouds, etc. • When construction activities that could potentially exceed 75 dBA are conducted, noise barriers such as noise shields, barriers, blankets, or enclosures shall be used, where feasible, adjacent to or around noisy construction equipment. Noise control shields/barriers/ blankets shall be made featuring weather-protected, sound-absorptive material on the	Less than Significant

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM)[a] and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.13 Noise – Would the project (cont.)			
Impact 3.13.a (cont.)		construction-activity side of the noise shield/barrier/blanket. The noise barrier must be installed in a location that completely blocks line-of-sight between the construction noise source (e.g., generator, backhoe) and sensitive receptors located within 100 feet of the noise source. • Stationary construction noise sources shall be located as far from adjacent receptors as possible. They shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or other measures to the extent this does not interfere with construction. ***Notification and Correction*** • Distribute to the potentially affected residences within 100 feet of Project construction an informational pamphlet, and post signs at conspicuous publicly accessible places at each construction site, that indicate the hours of construction work and applicable noise level limits and provide a "hotline" telephone number, which shall be attended during active construction working hours and record messages outside of working hours, for use by the public to register complaints. SDG&E shall identify whether posted hours and/or the 75 dBA Leq threshold have been exceeded, take action to keep to posted hours and/or reduce noise levels below 75 dBA, and notify CPUC within 24 hours. With regard to any noise complaints received citing project construction, SDG&E shall ensure that all complaints received during or outside of working hours shall be logged noting date, time, complainant's name, nature of complaint, and any corrective action taken, and shall submit such information to the CPUC Project Manager within 48 hours of receiving the complaint. • For construction activities that involve a helicopter (e.g., sock line installation, movement of materials), at least one week prior to the start of such activity, additional notice shall be issued or delivered [by a means which provides proof of delivery] by SDG&E and/or its contractor to sensitive receptors within 300 feet of planned helicopter activity. This notice shall include the estimated date and time of the proposed work, as well as the estimated duration of the work, both in terms of overall duration per segment and duration per pole location. ***Relocation*** • The Plan shall provide for temporary relocation of residents in the event that the Plan or the noise monitoring program identifies the potential for construction noise to exceed 75 dBA L_{eq} within 100 feet of such receptors.	
		Mitigation Measure NOI-2: Blasting Plan. Prior to conducting any blasting activities, SDG&E shall develop a Blasting Plan in coordination with an acoustical analyst, geotechnical engineer, and construction contractor. The Plan shall be submitted to the CPUC at least 14 days prior to the commencement of construction activities for review and approval to ensure that all components of this measure have been included and all required reviews, signatures, and permits obtained. The plan shall include a current/valid copy of the Explosives Permit issued by the San Diego County Sheriff's Office, as well as documentation that all local blasting requirements have been adhered to. The Blasting Plan shall include at a minimum the following measures:	

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM)[a] and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.13 Noise – Would the project (cont.)			
Impact 3.13.a (cont.)		• Methods of matting or covering of blast area to prevent excessive air blast pressure. • Description of air blast monitoring program. • If necessary, SDG&E and/or its contractors shall use portable noise barriers between the source and affected occupied properties to reduce excessive noise impacts. • Blasting shall be limited to between the hours of 7:00 a.m. and 7:00 p.m. daily. • Blasting notification procedures, lead times, and list of those notified. Public notification to potentially affected sensitive receptors describing the expected extent and duration of the blasting. • Verification that explosives are not being proposed for use within 300 feet of the boundary of any occupied parcels zoned for residential. In the event that blasting activities are proposed within this distance, SDG&E will provide verification to the CPUC that residences affected by noise are notified of the date and time of blasting and offered temporary relocation assistance.	
Impact 3.13.b: Generation of, excessive groundborne vibration or groundborne noise levels.	Significant	**Mitigation Measure NOI-3: Vibration Reduction Plan.** Prior to any blasting construction, the applicant shall develop a Vibration Reduction Plan in coordination with an acoustical analyst, geotechnical engineer, and construction contractor, and submit the Plan to the CPUC for approval at least 14 days prior to any proposed blasting. The Vibration Reduction Plan shall include vibration reduction measures to ensure that surrounding buildings will be exposed to less than 0.2 PPV to prevent building damage. At a minimum, the plan shall consider the following measures: • Evidence of licensing, experience, and qualifications of blasting contractors. • The Plan shall establish a vibration limit of 0.2 PPV at nearby structures in order to protect structures from blasting activities and identify specific locations for monitoring. A pre-blast survey shall be conducted of any potentially affected structures. • The Plan shall identify the appropriate size of the explosive charge to ensure that a vibration level of 0.2 PPV is not exceeded at nearby structures. • Impacted property owners shall be notified at least 48 hours prior to the visual inspections. • Post-construction inspection of structures shall be performed to identify (and repair if necessary) any damage from blasting vibrations. Any damage shall be documented by photograph, video, etc. This documentation shall be reviewed with the individual property owners and SDG&E shall arrange and fund any needed repairs. Documentation of these efforts shall be provided to the CPUC.	Less than Significant
Impact 3.13.c: Be located within the vicinity of a private airstrip or an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels.	No impact	None required	No Impact

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM)[a] and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.14 Population and Housing – Would the project:			
Impact 3.14.a: The Project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).	Less than Significant	None required	Less than Significant
Impact 3.14.b: The Project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.	No Impact	None required	Less than Significant
3.15 Public Services – Would the project:			
Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:			
Impact 3.15.a.i: Fire protection.	Significant	Implement Mitigation Measure WIL-1, located below.	Less than Significant
Impact 3.15.a.ii: Police protection.	Less than Significant	None required	Less than Significant
Impact 3.15.a.iii: Schools.	No Impact	None required	No Impact
Impact 3.15.a.iv: Parks.	No Impact	None required	No Impact
Impact 3.15.a.v: Other public facilities.	No Impact	None required	No Impact
3.16 Recreation – Would the project:			
Impact 3.16.a: Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.	Less than Significant	None required	Less than Significant
Impact 3.16.b: Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.	No Impact	None required	No Impact
Impact 3.16.c: Disrupt access to recreational opportunities.	Significant	**APM PS-1:** SDG&E will provide the public with advance notification of construction activities. Concerns related to dust, noise, and access restrictions with construction activities will be addressed within this notification.	Less than Significant
		APM PS-2: All construction activities will be coordinated with the property owner or authorized agent for each affected park, trail, or recreational facility prior to construction in these areas.	

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM)[a] and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.16 Recreation – Would the project:			
Impact 3.16.c (cont.)		**APM PS-3:** As needed, signs will be posted directing vehicles to alternative park access and parking, if available, in the event construction temporarily affects parking near trailheads.	
		APM PS-4: All parks, trails, and recreational facilities that are physically impacted during construction activities and are not directly associated with the new permanent facilities, will be returned to an approximate pre-construction state, while still allowing for SDG&E to safely operate and maintain the facilities, following the completion of the Project. SDG&E will replace or repair any damaged or removed public equipment, facilities, and infrastructure in a timely manner.	
		Implement Mitigation Measures NOI-1 and NOI-2, located above.	
3.17 Transportation and Traffic – Would the project:			
Impact 3.17.a: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.	Significant	**APM TRA-1:** If construction requires lane closures, traffic delays, or other encroachment of construction activities within public travelways, the Applicant will adhere to local traffic control regulations and establish a traffic control plan as needed to comply with local ordinances. Traffic control plans will describe signage, flaggers, or other controls to be used to regulate traffic where necessary and to maintain a safe transportation corridor during construction.	Less than Significant
		Mitigation Measure TRA-1: Coordination with North County Transit District (NCTD). SDG&E and its contractor shall: • Minimize interruptions to transit services and facilities. In the event that a temporary removal or relocation of a bus stop is necessary, coordination with NCTD shall occur to ensure that any such action is consistent with the transit operator's needs. • The applicant shall coordinate with NCTD at least 30 days in advance of right-of-way construction work to ensure that any such construction activities are consistent with maintaining the transit services' operations.	
Impact 3.17.b: Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.	No Impact	None required	No Impact
Impact 3.17.c: Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.	Less than Significant	None required	Less than Significant
Impact 3.17.d: Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	Less than Significant	None required	Less than Significant

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM)[a] and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.17 Transportation and Traffic – Would the project (cont.)			
Impact 3.17.e: Result in inadequate emergency access.	Less than Significant	Implement APM TRA-1, located above **APM TRA-2:** The Applicant will coordinate with local emergency response agencies during construction within existing public roadways to allow safe passage and access by emergency vehicles and equipment.	
Impact 3.17.f: Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.	Significant	Implement Mitigation Measure TRA-1, located above	Less than Significant
3.18 Tribal Cultural Resources – Would the project:			
Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is.			
Impact 3.18.a.i: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).	No Impact	None required	No Impact
Impact 3.18.a.ii: A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	Significant	Implement CUL-1 through CUL-4, located in the *Cultural Resources* section, located above.	Less than Significant
3.19 Utilities and Service Systems – Would the project:			
Impact 3.19.a: Require or result in the relocation or construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.	No Impact	None required	No Impact
Impact 3.19.b: Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.	No Impact	None required	No Impact

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM)[a] and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.19 Utilities and Service Systems – Would the project (cont.)			
Impact 3.19.c: Not result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	No Impact	None required	No Impact
Impact 3.19.d: Generate solid waste in excess of state or local standards or in excess of the capacity of local infrastructure	Significant	**Mitigation Measure US-1: Construction and Demolition Debris Recycling Ordinances.** SDG&E and its contractors shall recycle and/or reuse 90 percent of inert materials and 70 percent of all other materials, as well as 100 percent of trees, stumps, rocks, and other vegetation. In order to document and track such diversions, the applicant shall provide the following: • Prior to construction, the Applicant shall provide a preliminary Construction and Demolition Debris Register (Preliminary Debris Register) that lists all anticipated construction and demolition solid waste streams (by weight) along with how the project will dispose/divert each waste. The Preliminary Debris Register shall also list the anticipated destination(s) (i.e., location or facility) for each waste stream. The Preliminary Register shall document how the project shall achieve the minimum waste diversion percentages. • During construction activities, the Applicant shall keep records (e.g., a log) on site documenting the disposal and/or diversion of all construction and demolition debris that leaves the project site. The Applicant shall also keep copies of all corresponding receipts or similar documentation from solid waste facility, recycling center, green waste facility, or other permitted facility. • During construction activities, the Applicant shall provide updates for solid waste diversion to the CPUC as part of the Quarterly Project Status Reports required by the Mitigation Monitoring, Reporting, and Compliance Program (MMRCP). • Following the completion of construction activities, the Applicant shall provide a Final Debris Register that documents the final construction and demolition debris totals, destinations, and diversion percentages. The Final Debris Register shall document the Project's final compliance with the minimum diversion percentages.	Less than Significant
Impact 3.19.e: Negatively impact the provision of solid waste services or impair the attainment of solid waste reduction goals.	Significant	Implement Mitigation Measure US-1, located above	Less than Significant
Impact 3.19.f: Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.	Significant	Implement Mitigation Measure US-1, located above	Less than Significant

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM)[a] and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.20 Wildfire – Would the project:			
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:			
Impact 3.20.a: Substantially impair an adopted emergency response plan or emergency evacuation plan?	Less than Significant	None required	Less than Significant
Impact 3.20.b: Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.	Significant	**Mitigation Measure WIL-1: Fire Safety.** SDG&E and/or its contractors shall prepare and implement a Final Project-specific Construction Fire Prevention Plan (CFPP) to ensure the health and safety of construction workers and the public from fire-related hazards. The Final Project-Specific Construction Fire Prevention Plan shall include the provisions in the TL 6975 Construction Fire Prevention Plan provided in Appendix 4.8-B of the Proponent's Environmental Assessment (SDG&E, 2017b), as well as the requirements listed below. Prior to construction, SDG&E shall contact and consult with the San Diego Unit of CAL FIRE, the San Diego County Fire Authority, and the fire departments of the cities of Carlsbad, Escondido, San Marcos, and Vista to determine the appropriate amounts of fire equipment to be carried on the vehicles and appropriate prevention measures to be taken. SDG&E shall submit verification of its consultation with the appropriate fire departments to the CPUC Project Manager. SDG&E shall submit the CFPP to the CPUC Project Manager for approval 60 days prior to commencement of construction activities and shall make the approved Final CFPP available to all construction crew members prior to construction of the Project. The Final CFPP shall list fire safety measures including fire prevention and extinguishment procedures, as well as specific emergency response and evacuation measures that would be followed during emergency situations; examples are listed below. The Final CFPP also shall provide fire-related rules for smoking, storage and parking areas, usage of spark arrestors on construction equipment, and fire-suppression tools and equipment. The Final CFPP shall include or require, but not be limited to, the following: • SDG&E and/or its contractors shall have water tanks, water trucks, or portable water backpacks (where space or access for a water truck or water tank is limited) sited/available in the study area for fire protection. • All construction vehicles shall have fire suppression equipment. • SDG&E shall ensure that all construction workers receive training on the proper use of fire-fighting equipment and procedures to be followed in the event of a fire. • As construction may occur simultaneously at several locations, each construction site shall be equipped with fire extinguishers and fire-fighting equipment sufficient to extinguish small fires. • SDG&E shall instruct construction personnel to park vehicles within roads, road shoulders, graveled areas, and/or cleared areas (i.e., away from dry vegetation) wherever such surfaces are present at the construction site. • SDG&E and its contractor shall cease work during Red Flag Warning events in areas where vegetation would be susceptible to accidental ignition by Project activities (such as welding or use of equipment that could create a spark).	Less than Significant

TABLE ES-2 (CONTINUED)
ENVIRONMENTAL IMPACTS WITH IMPLEMENTATION OF APPLICANT PROPOSED MEASURES AND MITIGATION MEASURES

Environmental Impact	Initial Significance Finding	Applicant Proposed Measures (APM)[a] and Mitigation Measures (MM) Identified in the Draft IS/MND	Significance after APMs and Mitigation
3.20 Wildfire – Would the project (cont.)			
Impact 3.20.b (cont.)		• At each construction site, after construction has been completed for the day, the project contractor and/or the SDG&E Contract Administrator will perform visual inspections to ensure that all ignition risks are minimized or eliminated before leaving the work site. • Successful implementation of Mitigation Measure WIL-1: Fire Safety would be demonstrated by the development of a Final CFPP in consultation with local fire authorities which documented and submitted to the CPUC for final approval. Additionally, successful implementation of Mitigation Measure WIL-1 would require that SDG&E and its contractor comply with all components of the Final CFPP, that ignition from project construction activities is promptly reported to the fire department(s) with jurisdiction, and that when it is safe to do so, any project-caused ignition is suppressed immediately.	
Impact 3.20.c: Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.	Less than Significant	None required	Less than Significant
Impact 3.20.d: Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes	Significant	Implement Mitigation Measure WIL-1, located above	Less than Significant

NOTES:
[a] Not all Applicant Proposed Measures (APMs) are included in this table. Only those APMs which were found to reduce adequately reduce an impact to a less-than-significant level are included.

CHAPTER 1
Introduction

On November 15, 2017 San Diego Gas and Electric Company (SDG&E) submitted a Permit to Construct (PTC) Application (A.17-11-010) to the California Public Utilities Commission (CPUC) for the SDG&E San Marcos to Escondido Tie Line (TL) 6975 69 kV Project (Project). Upon review of Proponent's Environmental Assessment (PEA), the CPUC's Energy Division notified SDG&E that its PTC application was complete on March 16, 2018. SDG&E proposes to install new overhead single-circuit electric power line structures, to rebuild existing structures from single circuit to double circuit, and to reconductor and re-energize existing conductors, as described in further detail in Chapter 2, *Project Description*. Pursuant to the requirements of the California Environmental Quality Act (CEQA), the CEQA Guidelines, and CPUC General Order (GO) 131-D, the CPUC has prepared an Initial Study (IS) to evaluate potential environmental impacts of the Project.

If, following preparation of an IS, there is no substantial evidence of significant environmental effects, or if potential significant effects can be reduced to a point where clearly no significant effect on the environment would occur, a Negative Declaration shall be prepared (Pub. Res. Code §21080(c)(1)). If an IS prepared for a project indicates that significant environmental effect(s) that cannot be mitigated to a less than significant level could occur, the CPUC shall prepare an Environmental Impact Report (EIR).

A Mitigated Negative Declaration (MND) may be prepared when "the initial study has identified potentially significant effects on the environment, but: (1) revisions in the project plans or proposals made by, or agreed to by, the applicant would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur, and (2) there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment" (Pub. Res. Code §21064.5). The CPUC has determined, based on the results of the IS, that the appropriate type of CEQA documentation for this Project is an MND.

This IS/MND identifies the potential environmental effects of the Project, evaluates their level of significance, and identifies the revisions in the Project agreed to by SDG&E that would avoid the effects or mitigate them below the level of significance. Specifics of the Project described and analyzed in this Draft IS/MND are based on SDG&E's Application for a PTC, the Proponent's Environmental Assessment (PEA) (SDG&E, 2017), SDG&E's responses to deficiency letters and data requests by the CEQA team (SDG&E, 2018a-g). This information is intended to describe construction, operations, and maintenance requirements and activities to inform an analysis of the Project's environmental effects.

This Chapter evaluates the Project using the Appendix G checklist questions set forth in the 2018 Amendments and Additions to the State CEQA Guidelines adopted by the Natural Resources Agency in November 2018, with one exception: The Draft IS/MND does not rely on the revised questions in the Transportation category of the updated Guidelines for the reasons addressed more specifically in Section 3.17, *Transportation and Traffic.*

The proposed Updated Guidelines Appendix G checklist also adds two new sections: (1) Energy and (2) Wildfire. The Draft IS/MND includes these two sections in its analysis of the Project's environmental effects.

For the purposes of this Chapter and the Draft IS/MND, each resource-specific study area used for each environmental resource analysis is summarized and provided below in **Table 1-1**, Resource-Specific Study Area.

TABLE 1-1
RESOURCE-SPECIFIC STUDY AREA

Resource Section	Resource-Specific Study Area Used in Each Section Analysis
3.1 Aesthetics	This resource-specific study area includes the landscapes directly affected by the Project and the surrounding areas from which the Project would be visible.
3.2 Agriculture and Forestry Resources	This resource-specific study area is defined as the footprint of all components of the Project, including all areas of temporary and/or permanent ground disturbance including in the SDG&E right-of-way (ROW) and the existing access roads.
3.3 Air Quality	The regional study area for the analysis of impacts related to implementation of an air quality plan and violation of air quality standards is the San Diego Air Basin (Air Basin), which is contiguous with the political boundaries of the County of San Diego, encompassing 4,260 square miles. For impacts related to exposing sensitive receptors to substantial pollutant concentrations and emissions of dust, odors, and other potential nuisance emissions, the local study area consists of areas surrounding Project work sites where emissions would be most concentrated, and the analysis focuses on the nearest receptors.
3.4 Biological Resources	This resource-specific biological study area (BSA) is defined as the existing environment for wildlife, botanical, and wetland resources within and adjacent to the Project site, as well as adjacent habitats and habitat suitability considered for biological resources within an approximate 500-foot buffer from the limits of the Project area that could reasonably be affected by Project construction, operation, and maintenance activities.
3.5 Cultural Resources	This resource-specific study area includes a 150-foot buffer on either side of the center line of the entire Project alignment, as well as including all Project components, access roads, staging yards, substation locations, and pole replacement sites.
3.6 Energy	The potential impacts are analyzed based on an evaluation of whether construction and operation energy use estimates for the Project would be considered excessive, wasteful, or inefficient. For the purposes of this analysis, the SDG&E service area and California region were used as a basis for energy consumption relative to the energy consumed from the Project.
3.7 Geology	The resource-specific study area for impacts related to geology, soils, and seismicity is defined as the Project footprint and vicinity, including all areas of temporary and/or permanent ground disturbance. For paleontological resources, the study area includes all areas within 1 mile of the immediate Project alignment, and in particular, the Santiago Formation.
3.8 Greenhouse Gases	For the purposes of this analysis, the significance threshold relevant to Project-specific emissions is distinct to the County of San Diego, which is contiguous with the San Diego Air Basin boundaries, and is used as the Project specific study area.
3.9 Hazardous Material	This resource-specific study area is defined as the area comprising all component of the Project as well as areas that would be subject to either temporary or permanent disturbance as a result of the Project or used for the transportation of materials, equipment, and workers. Regulatory databases were used to search for sites within 0.25 mile of the Project.

TABLE 1-1 (CONTINUED)
RESOURCE-SPECIFIC STUDY AREA

Resource Section	Resource-Specific "Study Area" Used in Each Section Analysis
3.10 Hydrology	This resource-specific study area includes the Project site and vicinity, including the footprint of all areas of Project-related temporary and/or permanent ground disturbance, as well as water features and drainages potentially influenced by the Project.
3.11 Land Use and Land Use Planning	This resource-specific study area is defined as the footprint of all Project components, including all areas of temporary and/or permanent ground disturbance and the surrounding communities within which the Project would be constructed, operated, and maintained.
3.12 Mineral Resources	This resource-specific study area is defined as the footprint of all components of the Project including all areas of temporary and/or permanent ground disturbance.
3.13 Noise	This resource-specific study area is defined as the area surrounding the Project where Project construction and operational noise may be heard.
3.14 Population and Housing	This resource-specific study area is defined as the footprint of all components of the Project, including all areas of temporary and/or permanent ground disturbance and the surrounding communities within which the Project would be constructed and operated.
3.15 Public Services	This resource-specific study area is defined as public service facilities within 1 mile of the footprint of Project components including all areas of temporary and permanent ground disturbance, as well as Project staging areas.
3.16 Recreation	This resource-specific study area is defined as the footprint of all Project components including all areas of temporary and/or permanent ground disturbance as well as neighboring parks, open space, and other lands used for recreational purposes within 0.5 mile of the Project alignment.
3.17 Transportation and Traffic	This resource-specific study area is defined for each of the three segments as follows: • ***Segment 1 Rebuild*****:** this 1.8-mile segment mostly follows West San Marcos Boulevard in the City of San Marcos, beginning at Discovery Street/La Sombra Drive in the east and the San Marcos/ Carlsbad city limit to the west, where West San Marcos Boulevard turns into Palomar Airport Road; • ***Segment 2 New Build*****:** beginning at the western terminus of Segment 1, Segment 2 is a 2.8- mile segment in the City of San Marcos bounded by the San Marcos/Carlsbad city limit to the west, Palomar Airport Road to the north, and San Elijo Road to the south and east; • ***Segment 3 Reconductoring/Re-energizing*****:** this 7.4-mile segment runs from the City of San Marcos in the west to the City of Escondido to the east, with much of the alignment running across unincorporated San Diego County. Beginning at the southern terminus of Segment 2, Segment 3 is bounded by San Elijo and Elfin Forest roads to the south and west, West Mission Road to the north, and Citracado Parkway and Enterprise Street to the east.
3.18 Tribal Cultural Resources	This resource-specific study area includes a 150-foot buffer on either side of the center line of the entire Project alignment, including all Project components, access roads, staging yards, substation locations, pole replacement sites, and all areas of temporary and/or permanent ground disturbance.
3.19 Utilities	This resource-specific study area includes the Project site and vicinity, including the footprint of all areas of Project-related temporary and/or permanent ground disturbance.
3.20 Wildfires	This resource-specific study area is defined as the footprint of all components of the Project, including all areas of temporary and/or permanent ground disturbance included in the SDG&E right-of-way (ROW), existing access roads**,** and areas where housing and structures are located downstream or downslope of the Project.

1.1 CEQA Process

The CPUC determined that the Project, with proposed mitigation measures incorporated, would not have a significant adverse effect on the environment. Therefore, this Draft IS/MND has been prepared.

On April 1, 2019, the CPUC filed a Notice of Completion (NOC) with the Governor's Office of Planning and Research, State Clearinghouse, published a Notice of Intent (NOI) to Adopt a Mitigated Negative Declaration, and released this Draft IS/MND for a 45-day public review period. The Draft IS/MND was distributed to federal, State, and local agency representatives, and the NOI was distributed to property owners within 600 feet of the Project and to other interested organizations and individuals, as outlined in Appendix B of this IS/Draft MND. Legal notices will appear on April 1 and 8, 2019 in the *San Diego Union Tribune* and on April 4 and 11, 2019 in the *Times-Advocate* announcing the availability of the Draft IS/MND for public review in compliance with CEQA.

1.2 Public Review Process

On April 1, 2019, the CPUC mailed a notice to relevant agencies, organizations, and individuals residing in the Project area, announcing that the Draft IS/MND was available for public review (recipients are identified in Appendix B). The CPUC established a Project voice mail phone number (619) 719-4207, e-mail address (TL6975SanMarcos@esassoc.com), and Project web site (http://www.cpuc.ca.gov/environment/info/esa/TL6975/index.html) to enable the public to ask questions, provide comments, and obtain additional information about the Project and the analysis in the Draft IS/MND.

In accordance with Section 15105(b) of the CEQA Guidelines, the public review and comment period begins on April 1, 2019 and ends at 5 p.m. on May 15, 2019. Copies of all written comments on the Draft IS/MND that are received during this comment period will be included in the Final IS/MND. In order to address the concerns of the public, the CPUC will hold two public meetings on April 30, 2019 to give any agencies, organizations, and individuals the opportunity to address any concerns or questions on the Draft IS/MND in a public setting. The first meeting will occur in the afternoon from 1 p.m. to 3 p.m. at the San Elijo Recreation Center in the Terrace Hall, located at 1105 Elfin Forest Road in San Marcos. The second meeting will occur in the evening from 6 p.m. to 8 p.m. at the San Marcos Community Center in the Main Hall, located at 3 Civic Center Drive in San Marcos.

1.3 CPUC Jurisdiction

The CPUC has sole and exclusive State jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order No. 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 counties' and cities' land use regulations are not applicable to the Project as local jurisdictions do not have jurisdiction over the Project. Accordingly, the discussion of local regulations in this IS/MND is provided for informational purposes only.

1.4 References

San Diego Gas & Electric Company (SDG&E), 2017. SDG&E Proponents Environmental Assessment for the San Marcos to Escondido TL6975 69kV Project (A. 17. 011.010) Volumes I and II.

SDG&E, 2018a. SDG&E TL 6975 San Marcos to Escondido Project (A.17-11-010), SDG&E Response to Deficiency Letter #1, dated January 12, 2018.

SDG&E, 2018b. SDG&E TL 6975 San Marcos to Escondido Project (A.17-11-010), SDG&E Response to Deficiency Letter #2, dated February 28, 2018.

SDG&E, 2018c. SDG&E TL 6975 San Marcos to Escondido Project (A.17-11-010), SDG&E Response to Data Request #1, dated May 15, 2018.

SDG&E, 2018d. SDG&E TL 6975 San Marcos to Escondido Project (A.17-11-010), SDG&E Response to Data Request #2, dated June 1, 2018

SDG&E, 2018e. SDG&E TL 6975 San Marcos to Escondido Project (A.17-11-010), SDG&E Response to Informal Data Request #3(a), dated June 8, 2018.

SDG&E, 2018f. SDG&E TL 6975 San Marcos to Escondido Project (A.17-11-010), SDG&E Response to Data Request #3, dated July 16, 2018.

SDG&E, 2018g. SDG&E TL 6975 San Marcos to Escondido Project (A.17-11-010), SDG&E Response to Data Request #4, dated August 7, 2018.

CHAPTER 2
Project Description

2.1 Introduction

San Diego Gas and Electric Company (SDG&E) in its California Public Utilities Commission (CPUC) application (A.17-11-010), filed on November 15, 2017, requested a Permit to Construct (PTC) for the SDG&E San Marcos to Escondido Tie Line[1] (TL) 6975 69kV Project (Project) in northern San Diego County, California. The application includes the Proponent's Environmental Assessment (PEA) prepared pursuant to Rule 2.4 of the CPUC's Rules of Practice and Procedure. Under CPUC General Order 131-D, approval of this Project must comply with the California Environmental Quality Act (CEQA).

As explained in PEA Section 2, *Project Purpose and Need*, SDG&E proposes this Project to address existing North American Electric Reliability Corporation (NERC) reliability criteria violations by eliminating existing congestion and improving reliability (SDG&E, 2017). In serving the San Marcos/Escondido area's present electrical demands, the existing electrical tie lines and substations serving the area currently experience congestion. This congestion compromises the system's reliability, particularly during peak use. Based on the growth projected by area municipalities (as contemplated in their General Plans) and the San Diego Association of Governments (see Section 3.14, *Population and Housing*), as well as the planned growth of renewable energy generation in the Imperial Valley, this situation is anticipated to further deteriorate.

To alleviate the existing NERC violations, service projected growth, and improve reliability in the San Marcos/Escondido area, the Project includes constructing new overhead single circuit[2] power line structures, rebuilding existing structures, and reconductoring and re-energizing approximately 12 miles of a 69-kilovolt (kV) overhead electric power line from the existing San Marcos Substation to the existing Escondido Substation. The Project also includes acquisition of 1.2 acres of new right-of-way (ROW) adjacent to existing ROW. Project components are described in detail in Section 2.4, *Project Components*.

[1] A tie line is an electrical line which connects two service areas. In the case of this project, Tie Line 6975 would "tie" together the areas served by the San Marcos and Escondido substations.

[2] In terms of transmission, a single electrical circuit consists of a set of three conductors, or wires, which deliver electricity within the power grid. Accordingly, a double circuit consists of two sets of conductors (i.e., two sets of three wires) sharing common transmission poles.

2.2 Project Location and Overview

A summary of the Project components is presented in **Table 2-1**. For planning and discussion purposes, the Project is characterized in three segments, each defined by location and the type of work proposed. Each segment is described below.

As shown in **Figure 2-1**, the Project would primarily be located in northern San Diego County in the cities of San Marcos and Escondido, as well as within smaller portions of the cities of Carlsbad and Vista. Substantial portions of the Project would also traverse adjacent unincorporated areas of San Diego County, including the community of Lake San Marcos. The Project also may include the use of two existing auxiliary staging yards in the City of San Diego during construction. The proposed power line would be constructed and/or rebuilt primarily within SDG&E right-of-way (ROW).

The Project alignment would originate at SDG&E's existing San Marcos Substation in the west and terminate at SDG&E's existing Escondido Substation in the east (see **Figure 2-2**). The TL 6975 Power Line Mapbook developed by SDG&E is included as Appendix A (SDG&E, 2017). The mapbook figures present Project details including – but not limited to – pole numbers, new pole locations, pole removals, pole types, ROW, etc. The key map for Appendix A is provided here at **Figure 2-3**.

Each of the three Project segments is shown individually in **Figures 2-4** to **2-6b**, with additional detail on key Project components provided in Section 2.4, *Project Components*.

2.2.1 Segment 1 Rebuild

Segment 1 is shown in **Figure 2-4** and in greater detail in Appendix A, Figures A-1 to A-7. Approximately 1.8 miles of the existing single-circuit, 69 kV Tie Line 680C would be rebuilt as a double-circuit 69 kV line, from San Marcos Substation to approximately 730 feet west of the intersection of West San Marcos Boulevard/Palomar Airport Road and White Sands Drive/Business Park Drive in the City of Carlsbad. This would include replacing all of the existing wood poles that are 20.5 to 83.5 feet in height with galvanized steel poles ranging from 43.0 to 101.5 feet in height; replacing all existing porcelain insulators with polymer insulators; and reconductoring the existing 12 kV distribution line (SDG&E, 2018c). A new 69 kV line would be strung on these new poles to form a double circuit with existing Tie Line 680C. Segment 1 would require slightly over 1.2 acres of new ROW to widen the existing ROW. This new ROW is discussed in greater detail in Section 2.4.3, *Right-of-Way Requirements*.

Work proposed at the San Marcos Substation would include installation of a 69 kV sulfur hexafluoride (SF_6) circuit breaker and two 69 kV 2,000-amp disconnects, seven piers, and an A-frame[3] to accommodate the Project. This work would be contained within the confines of the substation, which is bounded on all sides by single-family residential development.

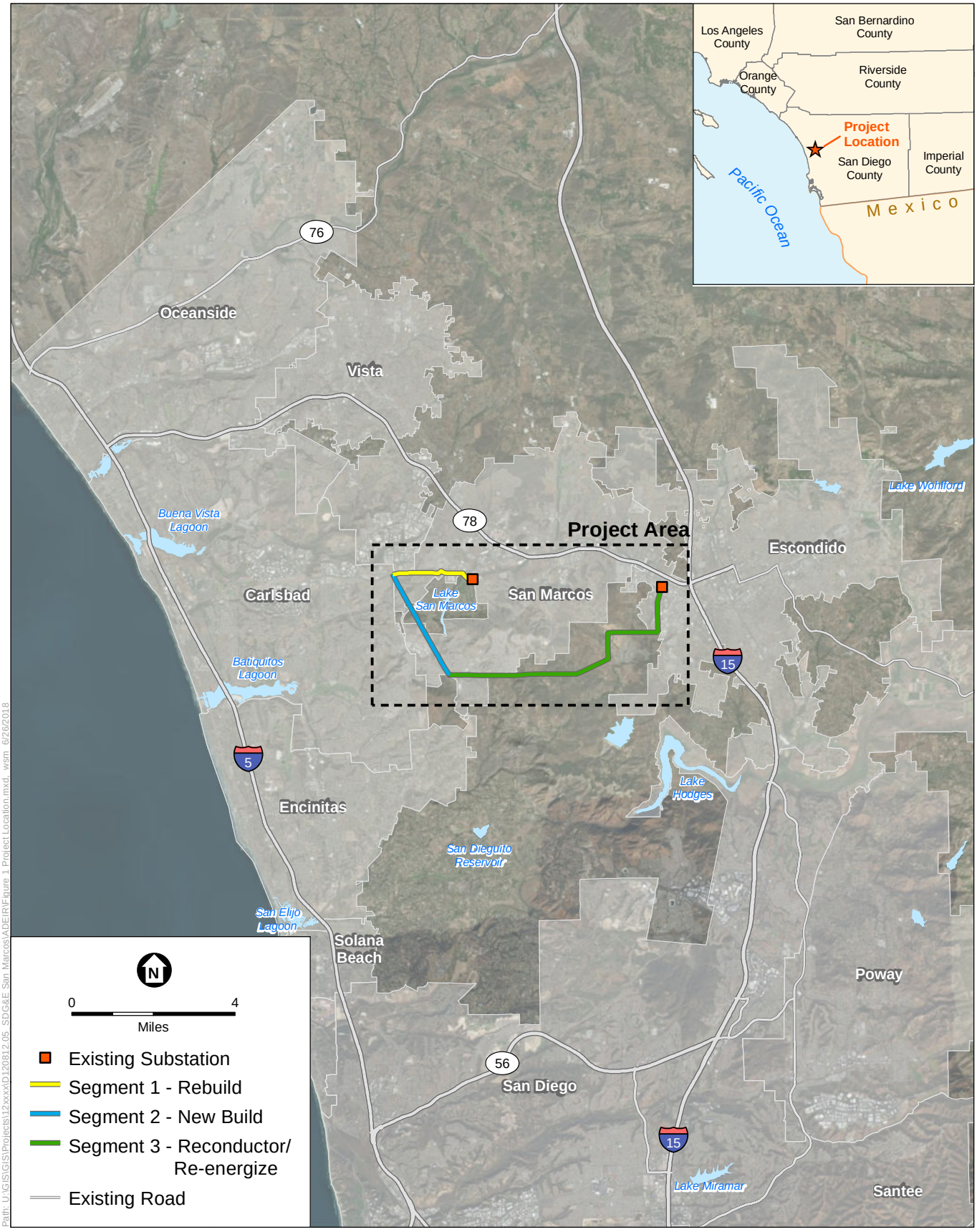
[3] An A-frame is a structure used to terminate a transmission line and support the line's connection to substation apparatus.

TABLE 2-1
PROJECT SUMMARY

Segment/Substation	Length (miles)	Description of Work
1 – Rebuild	1.8	• Rebuild TL 680C 69 kV circuit • Add TL 6975 to create a double 69 kV circuit • Replace wooden poles with steel poles • Replace porcelain insulators with polymer insulators • Reconductor underbuilt distribution line • Require 1.2 acres of additional ROW • Work to occur from San Marcos Substation, generally westward along Discovery Street and West San Marcos Boulevard/Palomar Airport Road, to the SDG&E TL 13811/13825 corridor west of White Sands Drive
2 – New Build	2.8	• Build TL 6975 single 69 kV circuit • Overhead power line on steel poles • Parallel to, and 30 feet offset east of, existing 13811/13825 138 kV power line • Work to occur within SDG&E ROW from Palomar Airport Road southeastward to Meadowlark Junction near San Elijo and Hidden Canyon roads
3 – Reconductoring/ Re-energizing	7.4	• New power line on existing steel lattice towers • Reconductor existing de-energized line on north side of towers from Meadowlark Junction to Harmony Grove Road • Replace porcelain insulators with polymer insulators • Re-energize existing line from Harmony Grove Road to Escondido Substation • Work to occur from Meadowlark Junction, generally eastward over land and north along Citracado Parkway, to the Escondido Substation
San Marcos Substation	N/A	• Install concrete circuit breaker pad • Install circuit breaker and 2 disconnects • Install 7 piers • Install A-frame • Install control and protection relays in existing control shelter
Escondido Substation	N/A	• Transfer existing conductor from 138 kV to 69 kV rack • Rearrange existing 69 kV circuits to accommodate new circuit • Replace existing oil circuit breaker with a new gas circuit breaker • Reconstruct existing circuit breaker pad • Install additional circuit breaker and disconnects • Remove three wooden poles • Install new steel poles and guys/anchors

NOTES: TL = Tie Line
ROW = Right-of-Way

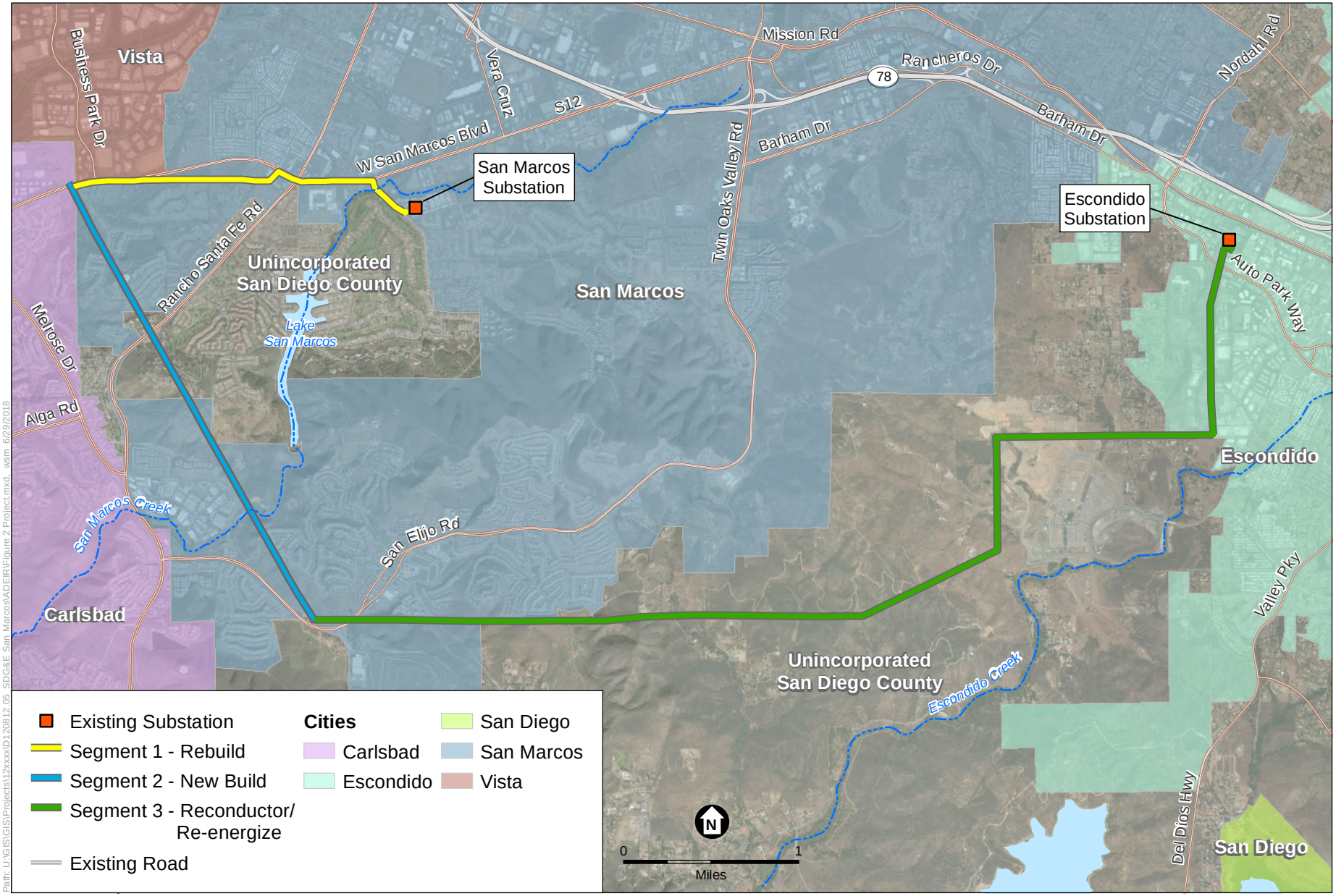
SOURCE: SDG&E, 2017



SOURCE: SDGE, 2018

TL 6975 San Marcos to Escondido Project

Figure 2-1
Regional Location



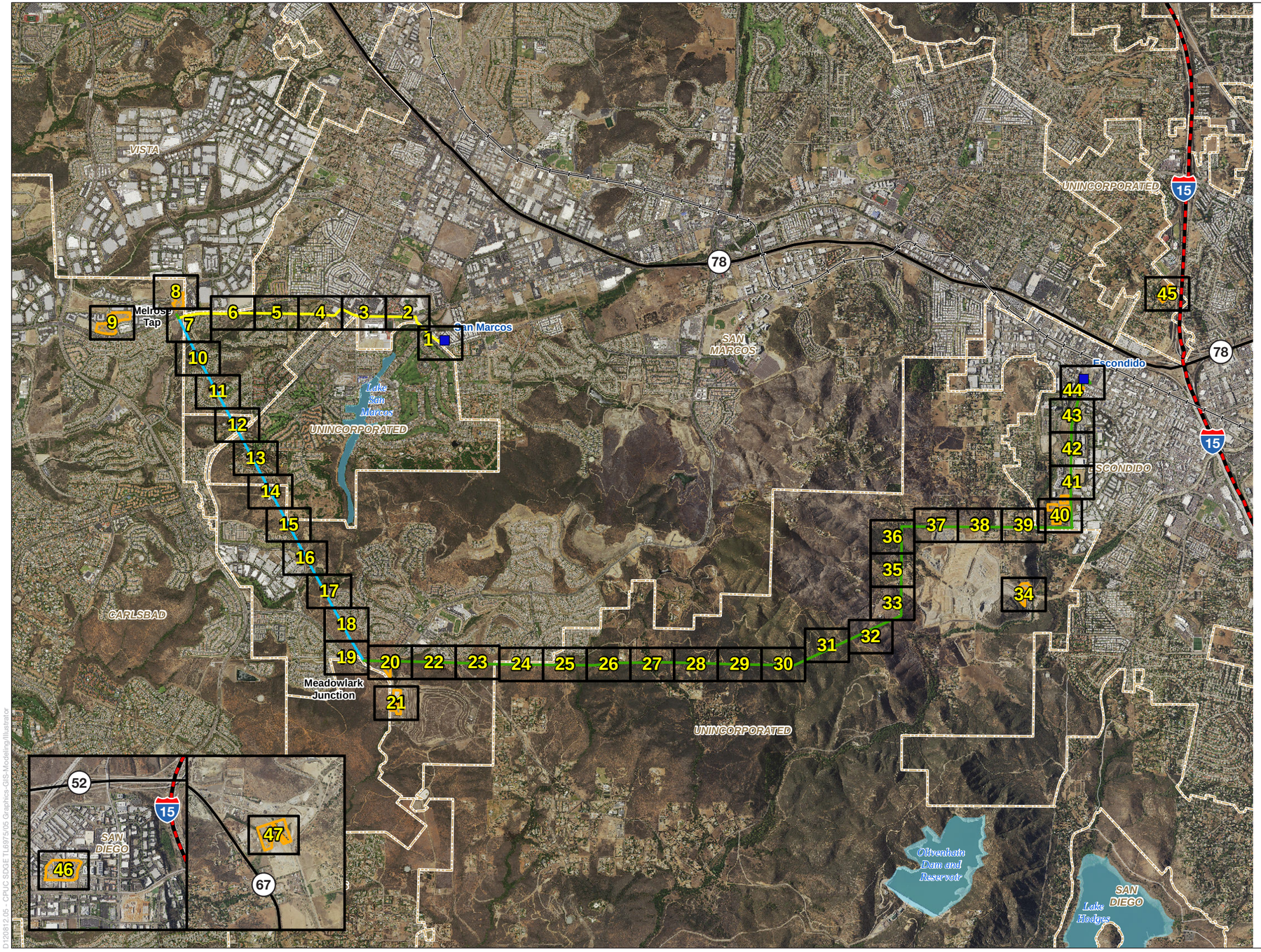
SOURCE: SDGE, 2018

TL 6975 San Marcos to Escondido Project

Figure 2-2
Project Location

ESA

Path: U:\GIS\GIS\Projects\12xxxx\D120812_05_SDG&E San Marcos\ADEIR\Figure 2 Project.mxd wsm 6/29/2018



Legend

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Staging Yard

General Features

- Existing Substation
- Interstate
- State Highway
- Railroad
- City Boundary
- County Boundary
- Waterbody
- Mapbook Page

N

0 1,000 2,000 3,000 4,000 5,000

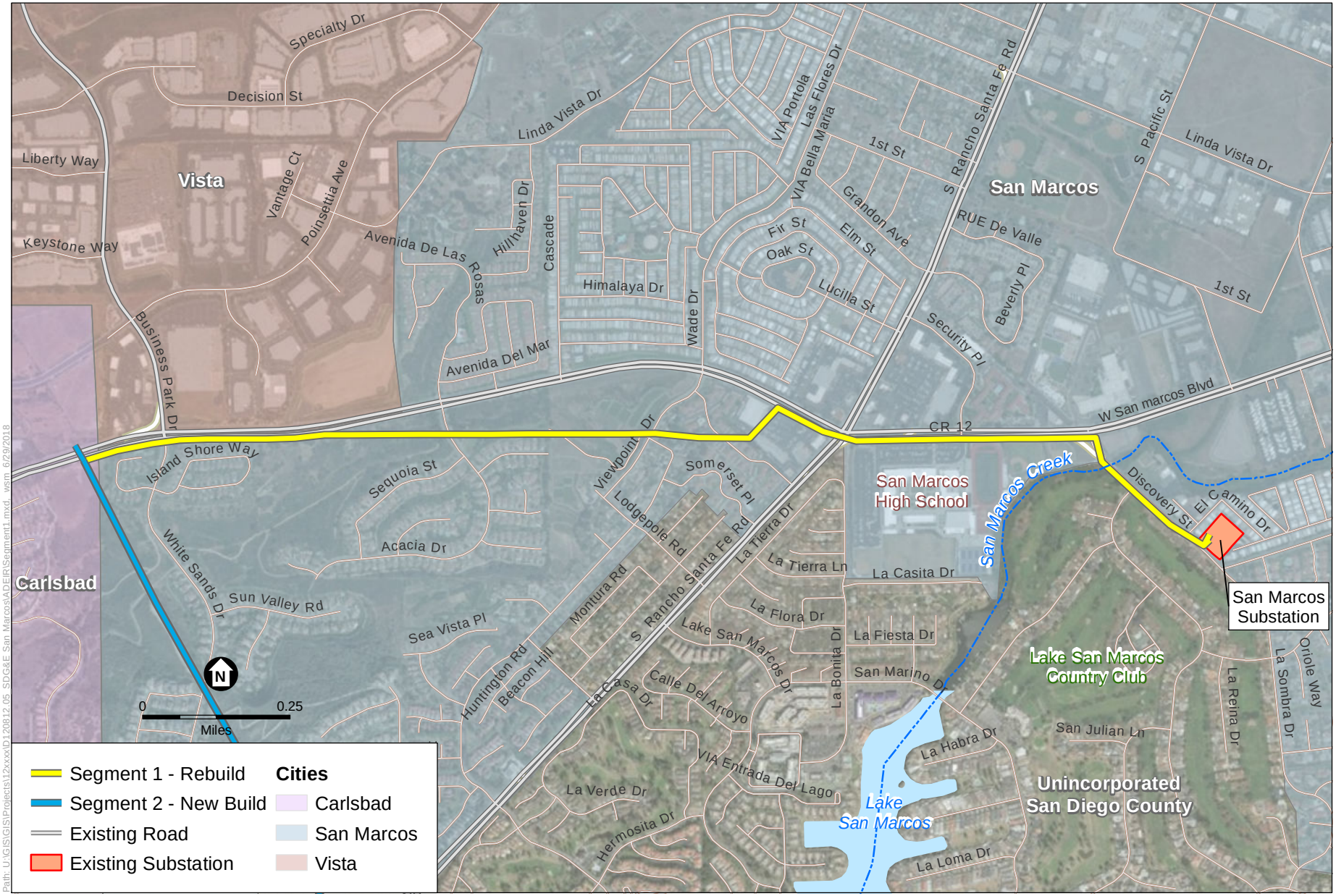
Feet

D:\120812.05 - CPUC SDGE TL6975\06 Graphics-GIS-Modeling\Illustrator

SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure 2-3
Project Alignment Key Map



SOURCE: SDGE, 2018

TL 6975 San Marcos to Escondido Project

Figure 2-4
Segment 1

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Heading west out of the San Marcos Substation, the tie line alignment includes the residential development along the west side of Discovery Street north to West San Marcos Boulevard. Just south of San Marcos Boulevard, the alignment passes the St. Mark Golf Course on the west and the Valley Christian School on the east. At West San Marcos Boulevard, the alignment heads west on the south side of the street. It runs along the frontage of San Marcos High School to South Rancho Santa Fe Road. Office buildings, an apartment complex, and a shopping center are opposite the high school on the north side of the street. The alignment continues west, leaves the street and traverses south across the San Marcos Plaza shopping center parking lot and resumes a westward track through a multi-family and single-family neighborhood. West of Viewpoint Drive, it crosses a nursery and then proceeds along the north side of a single-family neighborhood to Acacia Drive. West from here, the alignment crosses an undeveloped area and continues along the south side of West San Marcos Boulevard midway between Acacia Drive and White Sands Drive. From White Sands Drive, it continues west to the western terminus of Segment 1.

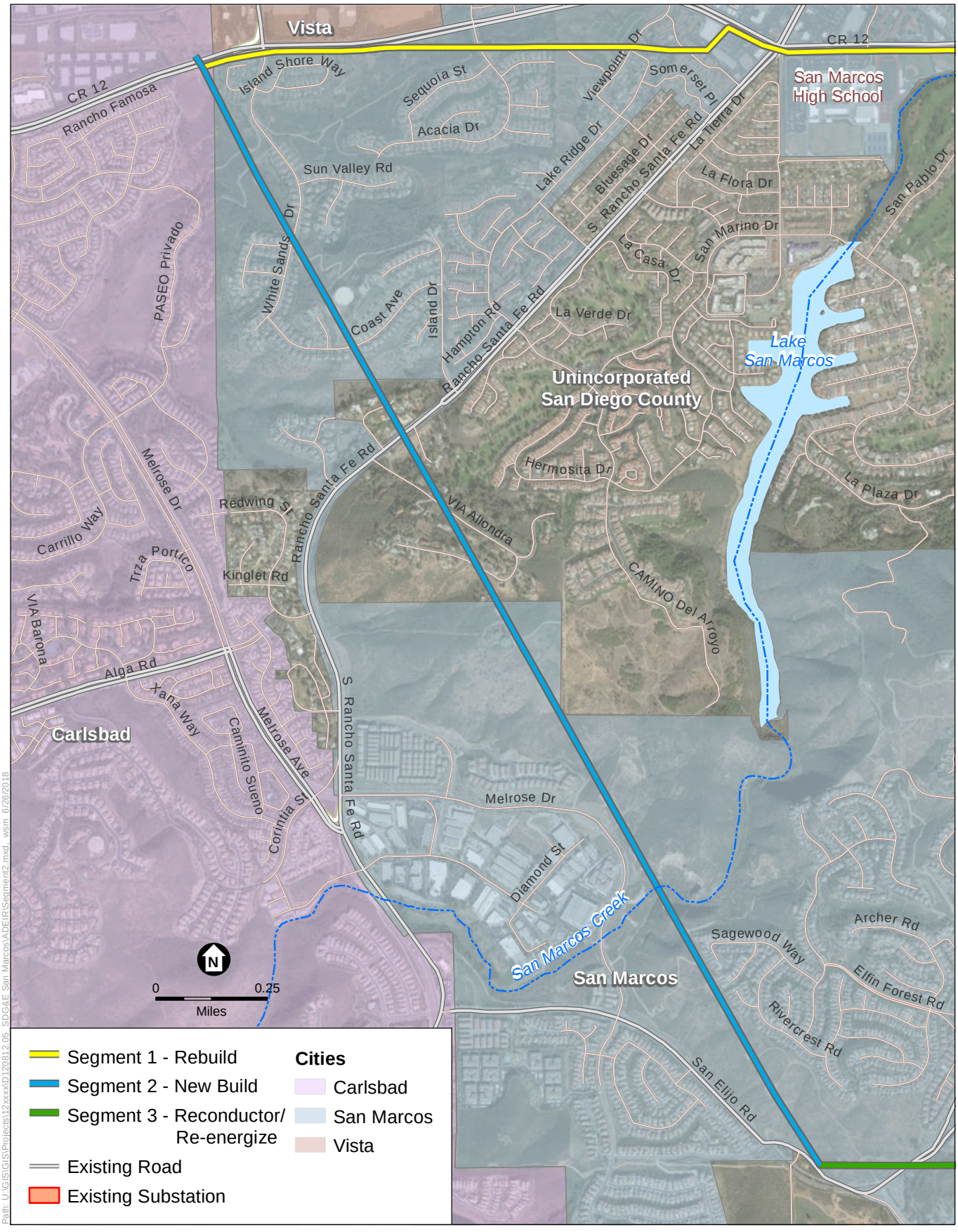
2.2.2 Segment 2 New Build

Segment 2 is shown on **Figure 2-5** and in greater detail in Appendix A, Figures A-7 and A-10 to A-19. This segment of the Project would include the construction of approximately 2.8 miles of new single-circuit 69kV overhead power line on new steel poles within the existing SDG&E ROW. Segment 2 would be located adjacent to SDG&E's existing 138 kV power line (Tie Line 13811/13825) southeast to Meadowlark Junction along San Elijo Road. The new segment would be constructed parallel to, and approximately 30 feet east of, the centerline of the existing line. The new steel poles would be installed at the same spacing as the structures supporting the existing 138 kV power line. To accommodate the Project at Meadowlark Junction, an existing 12 kV distribution line would be reconfigured on existing equipment within the Project boundary (SDG&E, 2017).

From north to south, Segment 2 would include the single-family residential area between Palomar Airport Road and White Sands Drive. After passing through the Via Allondra/Via Del Corvo neighborhood immediately south of White Sands Drive, the alignment would proceed over hilly undeveloped terrain to Meadowlark Junction. Approximately 2,500 feet north of this junction, the proposed alignment would skirt the west side of the single-family neighborhood along Sagewood Way, Copper Court, Brookside Court, and Rivercrest Road. While undeveloped, this area contains trails and maintained plantings.

2.2.3 Segment 3 Reconductoring/Re-energizing

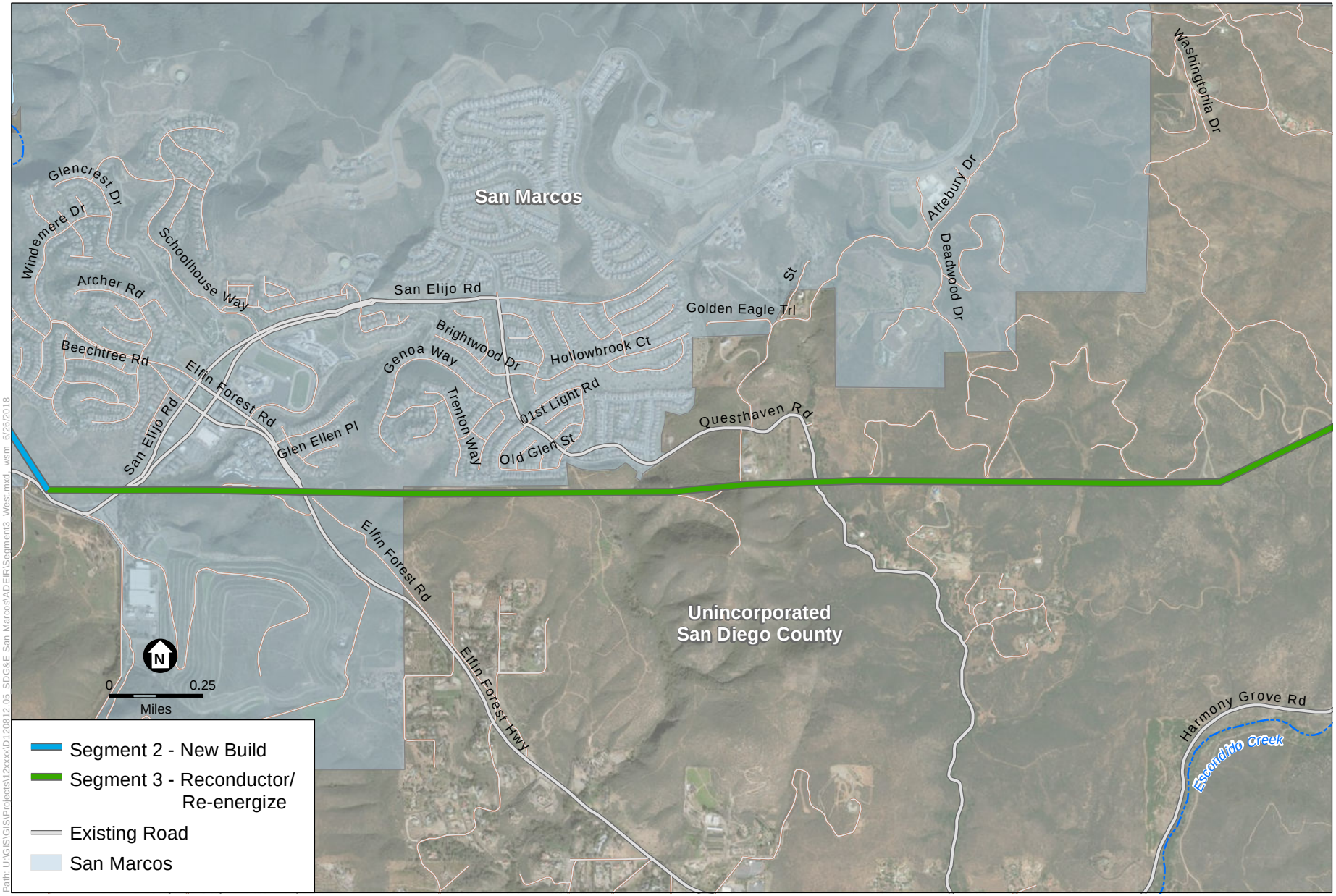
Segment 3 is shown on **Figures 2-6a** and **2-6b** and in greater detail in Appendix A, Figures A-19 to A-20, A-22 to A-33, and A-35 to A-44. The longest segment in the Project, Segment 3 would involve the reconductoring and re-energizing of approximately 7.4 miles of existing power line from Meadowlark Junction east and north to the Escondido Substation. The existing copper conductor along this alignment would be removed and replaced with new conductors. The existing porcelain insulators would be replaced with polymer insulators. Construction at the Escondido Substation would include the rearrangement of existing circuit racks to accommodate the Project (SDG&E, 2017).



SOURCE: SDGE, 2018

TL 6975 San Marcos to Escondido Project

Figure 2-5
Segment 2



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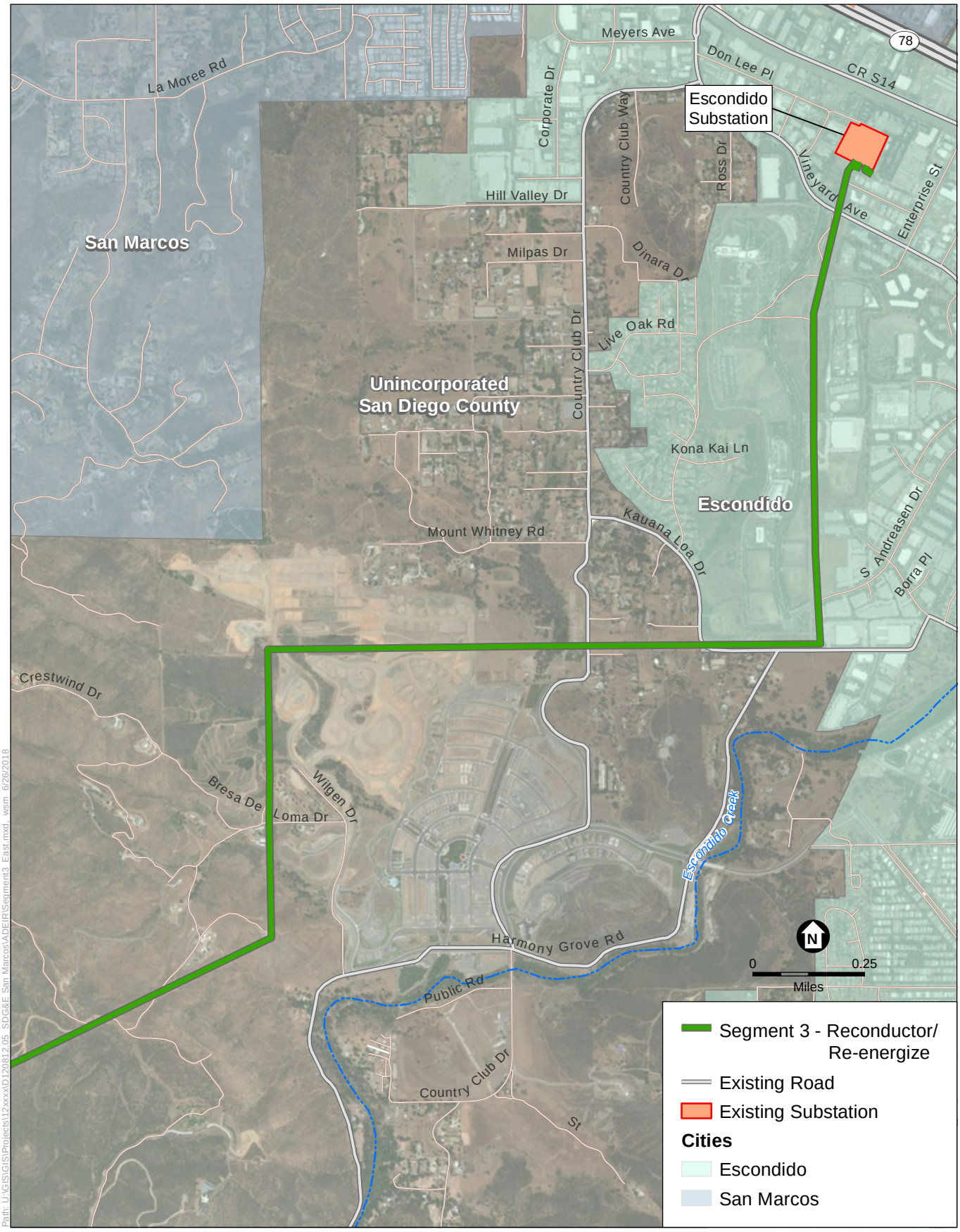
SOURCE: SDGE, 2018

TL 6975 San Marcos to Escondido Project

Figure 2-6a

Segment 3 - West

ESA



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SOURCE: SDGE, 2018

TL 6975 San Marcos to Escondido Project

Figure 2-6b
Segment 3 - East

For the most part, Segment 3 includes hilly, undeveloped terrain. East of San Elijo Road, the alignment skirts to the south of residential neighborhoods off of Elfin Forest and Questhaven roads in the San Elijo Hills area of San Marcos. To the east approaching the Hidden Villa Ranch development in Escondido, the alignment continues north and then east around this development parcel. As it comes in eastward along the north side of Kauana Loa Drive/Harmony Grove Road, it turns north parallel to the east of Citracado Parkway. At Auto Park Way, the alignment continues north, entering SDG&E's Northeast Operations Center and terminating in the Escondido Substation.

2.3 Existing System

2.3.1 Existing Substations

San Marcos Substation

The existing San Marcos Substation is located at 1260 Discovery Street south of West San Marcos Boulevard in the City of San Marcos (see **Figure 2-7**). The substation is currently accessed by two power lines – Tie Lines 680C and 684. The Project would install a third power line (Tie Line 6975) at the substation.

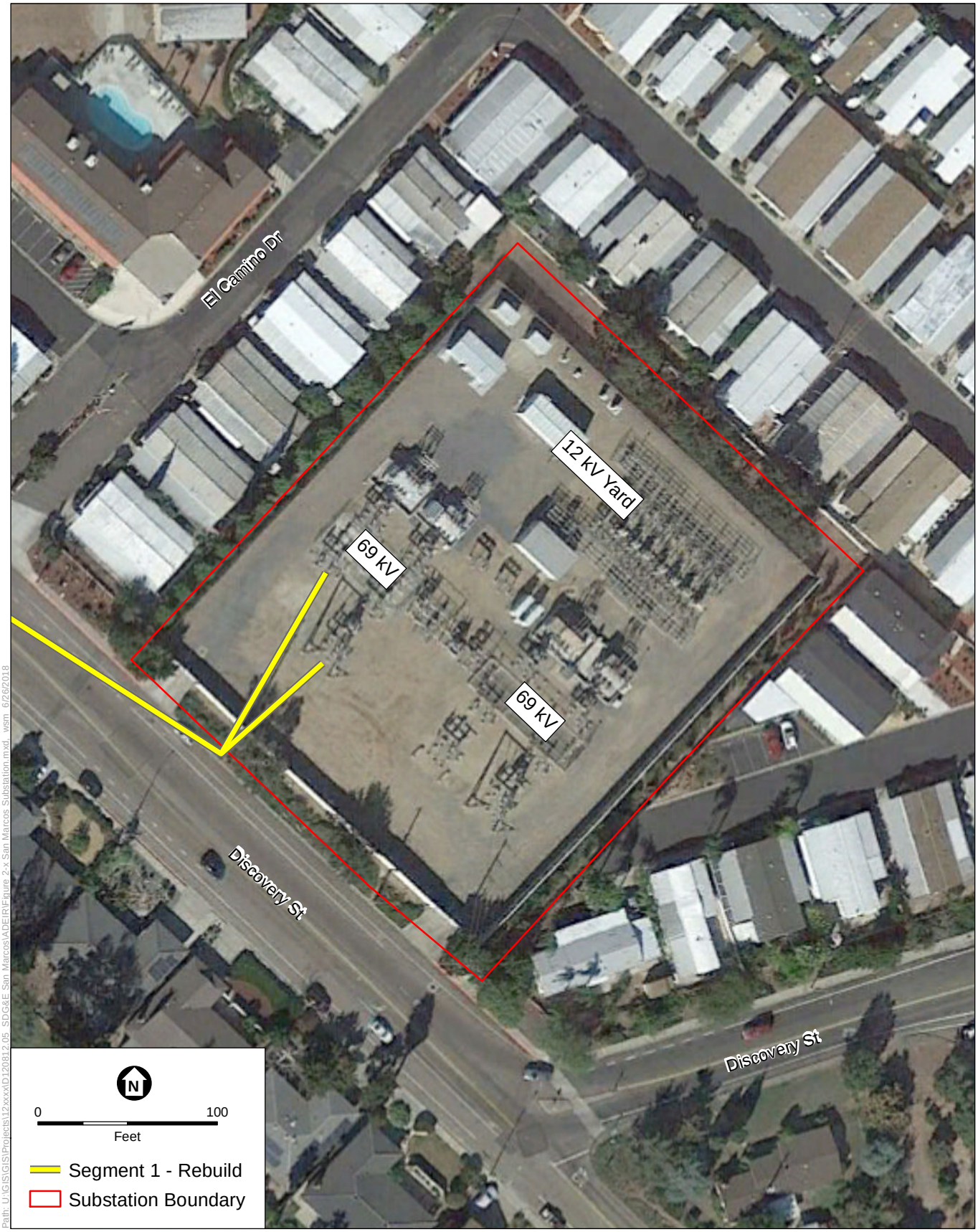
Escondido Substation

The existing Escondido Substation is located southwest of the Highway 78/Interstate 15 interchange and just north of Auto Park Way in the City of Escondido (see **Figure 2-8**). This substation currently has 13 power lines accessing the substation; the Project would add a 14th power line here.

2.3.2 Existing Transmission Alignment

As noted above, portions of the Project would be in the cities of Carlsbad, Escondido, Vista, and San Marcos, as well as in unincorporated San Diego County. The Project would be collocated with existing power lines on new or existing poles within existing SDG&E ROWs or franchise[4] easements for most of the alignment, including portions of the existing Tie Lines 680C and 13811/13825, and de-energized Tie Line 99911.

[4] A franchise agreement is a binding contract between a utility company and either a municipal agency or a county. The agreement establishes specific rights within the public right-of-way to extend and maintain utility-owned facilities. SDG&E operates under a franchise agreement with each municipality and San Diego County for the extension or new installation of gas and electric facilities.



SOURCE: Google Earth, 2016; SDGE, 2018

TL 6975 San Marcos to Escondido Project

Figure 2-7
San Marcos Substation

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SOURCE: Google Earth, 2016; SDGE, 2018

TL 6975 San Marcos to Escondido Project

Figure 2-8
Escondido Substation

2.4 Project Components

The following describes the characteristics of the Project's components, which include: substation work; power line installation, reconductoring (i.e., replacement), and re-energizing; pole replacement and installation; alternating current (AC) interference mitigation system; and right-of-way (ROW) acquisition.

2.4.1 Substations

San Marcos Substation

At the San Marcos Substation, a new concrete circuit breaker pad, up to 7 feet by 7 feet in size, would be installed. Seven piers, up to 2 feet in diameter and 6 feet long, would be installed, as well as a 30-foot A-frame with two footings measuring up to 9 feet by 13 feet each. A 69 kV SF_6 circuit breaker and two 69 kV 2,000-amp disconnects would be installed for the new line. The new power line would connect from the A-frame to the Tie Line 6975 power pole immediately outside the substation's west wall via a single conductor/phase (see Figure 2-7). Required control and protection relays would be installed in the existing control shelter within the substation.

Escondido Substation

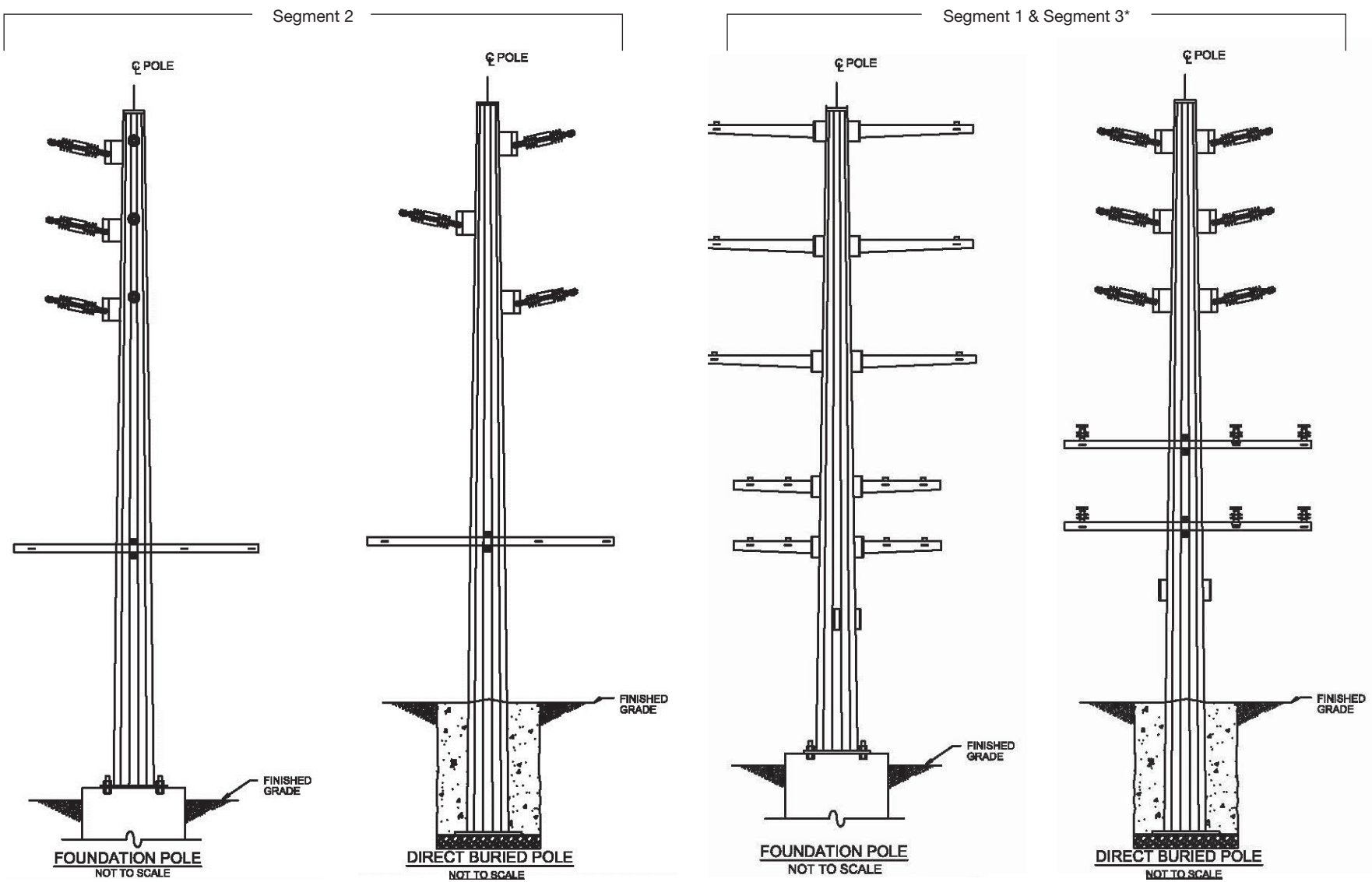
At Escondido Substation, the existing overhead conductor would be transferred from the 138 kV rack to an existing 69 kV bay position to accommodate the Project (see Figure 2-8). Three existing 69 kV circuits – Tie Lines 6908, 6934, and 689 – would be transferred to different bay positions to accommodate this new circuit and avoid power line crossings. The overhead spans (or "drop spans") of these existing power lines would be relocated to available bay positions within the substation. Also within the substation, an oil containment wall measuring approximately 14 feet by 12 feet and a concrete circuit breaker pad measuring approximately 8 feet by 8 feet would be removed, as the existing oil circuit breaker would be replaced with a gas (SF_6) circuit breaker, which does not require containment.[5] A new, larger concrete circuit breaker pad measuring 10 feet by 10 feet would be installed. To connect Tie Line 6908 to the new bay location, two 69 kV 2,000-amp disconnects[6] and one 69 kV SF_6 circuit breaker would be installed. Relay settings would be modified as required in the existing control shelter. New steel poles and replacement guys and anchors would be installed adjacent to and south of the southern corner of the substation. Three existing poles immediately outside the substation would be removed from service (SDG&E, 2017).

2.4.2 Power Line

The Project includes the rebuild, new build, and reconductoring/re-energizing of power line poles and towers, including overhead structures and underground duct packages. Each component is described below and typical pole types are illustrated in **Figure 2-9**.

5 Oil and sulfur hexafluoride (SF_6) are media used within circuit breakers to prevent arcing as they are non-conductive. The type of oil in the existing circuit breaker at the Escondido Substation is mineral oil, which requires the containment wall. SF_6 is a gas, which does not require a secondary containment structure.

6 A "disconnect" is a switch which would isolate a conductor or circuit from the power source.



* Segment 3: New poles or pole replacements only.

SOURCE: SDGE, 2018

TL 6975 San Marcos to Escondido Project

Figure 2-9
Typical Pole Types

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Poles/Towers

Table 2-2 provides a summary of the number and types of poles, as well as dimensional information, to be used in each Project segment. The pole locations and types are shown in the TL 6975 Power Line Mapbook included as Appendix A (see Figure 2-3 for a key map).

TABLE 2-2
PROJECT POLE/STRUCTURE SUMMARY

Pole Type	Approximate Quantity	Maximum Height Above Ground (feet)	Base Diameter at Grade (feet)	Tip Diameter (inches)
Segment 1 Rebuild				
Direct Bury	26	101.5	2.5	15
Pier Foundation/Micropile Foundation[a]	11	100	8	29
Remove from Service	10	43	N/A	N/A
Pole-Top Work[b]	6	43	N/A	N/A
No Work	4	56.5	N/A	N/A
Racks	2	50	N/A	N/A
Segment 2 New Build				
Direct Bury	5	88	2.5	15
Pier Foundation/Micropile Foundation[a]	11	110	8	29
Remove from Service	0	0	0	0
Pole-Top Work[b]	1	80	N/A	N/A
No Work	3	170	N/A	N/A
Racks	0	N/A	N/A	N/A
Segment 3 Reconductor/Re-Energize				
Direct Bury	1	43.1	2.5	15
Pier Foundation/Micropile Foundation[a]	4	85	8	29
Remove from Service	9	74.5	N/A	N/A
Existing Structure Re-Energize Conductors (No Work)	5	160	N/A	N/A
Pole-Top Work[b]	36	118.3	N/A	N/A
No Work	5	83	N/A	N/A
Racks	5	50	N/A	N/A

NOTES:

[a] Micropile foundations may be substituted for pier foundations due to site-specific substrate or access conditions, or to minimize disturbance to a sensitive resource.

[b] Those poles in this table identified as “pole-top work” may also be identified as “overhead work” elsewhere in this section.

SOURCE: SDG&E, 2017, 2018d

Two types of poles would be used to replace the existing wood poles: direct-bury dulled galvanized steel poles and engineered dulled galvanized steel poles supported on foundations. The installation techniques are discussed below. In locations where existing poles are being replaced, the position of the new poles would be offset by 6 to 8 feet.

In general, the new 69 kV steel poles would range in height from 43 to 110 feet above ground surface. The pole-top diameters would vary from 15 to 29 inches. All new steel poles would be constructed to current SDG&E standards, including design standards for avian protection (Edison Electrical Institute et al., 2012).

In Segment 1, each of the new steel poles would have six transmission arms and two distribution arms to accommodate a double circuit. They would range from 43 to 101.5 feet in height, with the majority of them being a consistent 83.5 in height. Of these, 26 would be direct-bury poles and 11 would be foundation poles. Ten poles would be removed from service altogether, many of them being guy support poles and wires that would not be needed for the self-supporting steel poles. Currently, guy wires stretch across West San Marcos Boulevard/Palomar Airport Road in several locations and would be removed as part of the Project. The 10 remaining poles along Segment 1 would not be replaced and would require overhead work only or would not require modification at all (i.e., conductor stringing, insulator modification).

At the point where Tie Line 6975 would transition from Segment 1 to Segment 2 along Palomar Airport Road, two wood poles would be replaced and two wood poles would be removed from service. Of the new poles, one would be a foundation pole and the other would be a direct-bury steel pole. Three existing poles at this location (north of Palomar Airport Road) would not require modification.

Segment 2 would have all new steel poles to accommodate a single circuit. They would range from 61 to 110 feet in height. The main line of Segment 2 would consist of 11 foundation poles and five direct-bury poles installed at the same spacing as the existing Tie Line 13811/13825 line, which the Project would parallel 30 feet to the east within the SDG&E easement.

The Project would be installed primarily on 29 existing steel lattice towers in Segment 3, ranging between 43.1 to 170 feet in height, re-establishing a double circuit. At Meadowlark Junction, where Project transitions from Segment 2 to Segment 3, one existing pole would be replaced with a steel pole and one new steel pole would be installed. The remaining five poles in this transition area at Meadowlark Junction would not be replaced; only anchor work, overhead work, re-energizing, or no work at all would occur at these pole locations. On the eastern end of the segment roughly parallel to Citracado Parkway, five existing poles, ranging in height from 52 to 170 feet, would be re-energized.

Direct-Bury Steel Poles

Direct-bury steel poles are dulled galvanized steel poles that are secured using a concrete backfill. These poles would be used at 32 locations. Direct-bury steel poles would require up to a 25-foot by 60-foot work area, plus a 40-foot-diameter work area around the pole, to provide a safe and adequate temporary workspace, including within the access road. These work areas could vary depending on specific ground conditions at each pole site, but would be no larger than the assumptions stated here. The poles would range in height from 43 to 101.5 feet above grade. The diameter of the pole at ground level would be up to 30 inches for light-duty steel poles. The poles would be buried into the ground to a depth of 7 to 16 feet, as necessary for installation.

Pier Foundation Poles

Concrete pier foundation poles are engineered steel poles that are anchor bolted to a reinforced concrete foundation. Foundation construction would require up to a 35-foot by 50-foot work area, plus a 40-foot-diameter work area around the pole, to provide a safe and adequate temporary workspace, including a temporary work area in the access road. The new poles would have a height of 43 to 110 feet height above ground. Up to 26 concrete-pier foundation poles would be installed. The concrete base would measure 6 to 12 feet in diameter, ranging from 14 to 40 feet in depth, with up to 2 vertical feet of the base exposed above ground level.

Micropile Foundation Poles

Micropile foundation poles are similar to those used on concrete pier foundations. As noted in more detail below in Section 2.5.4, *Pole Construction*, micropile foundations would be installed in areas where there are found to be site-specific substrate and/or access constraints, as well as at sites where ground disturbance must be minimized due to the presence of a sensitive resource. A micropile foundation consists of several small-diameter, drilled, and grouted reinforced foundations. A series of up to 16 individual micropiles would be drilled in a circular array of a diameter similar to an equivalent pier foundation. One micropile is typically a small hole up to 8 inches in diameter at the ground line, excavated to a depth of up to 40 feet, depending on the underlying substrate. (SDG&E, 2018h)

Like pier foundations, micropile foundation construction would require up to a 35-foot by 50-foot work area, plus a 40-foot-diameter work area around the pole, to provide a safe and adequate temporary workspace, including a temporary work area in the access road. The new poles would also have a height of 43 to 110 feet height above ground. Up to 26 micropile foundation poles could be installed in lieu of concrete pier foundations, dependent on site-specific conditions as noted.

Conductor/Cables

Above-Ground Installation

The distance from the ground to the lowest conductor would be at least 30 feet. The distance between the conductors on each pole would be approximately 9 feet. The span lengths for the Project are expected to be the same as those currently existing along the entire Project alignment. The pole replacements and new pole placements in Segments 1 and 2, respectively, would be located at or parallel to existing poles. With two exceptions at either end of Segment 3, the Project would be installed on existing towers. These exceptions include the installation of two pier foundation poles and removal of five existing poles at the Escondido Substation, as well as the removal of five existing poles, replacement of two existing pier foundation poles, and replacement of one existing direct-bury pole.

In Segment 1, along West San Marcos Boulevard/Palomar Airport Road, the span lengths average 365 feet. The span lengths would average 1,230 feet in Segment 2. As noted above, the new poles along Segment 2 would be spaced with the poles supporting the existing line. In Segment 3, the span lengths average 1,125 feet. The components used to construct the 69 kV line would have

non-reflective surfaces. The insulators would be constructed of a gray polymer, the conductors would be made from aluminum-wrapped steel, and the power poles and hardware would be dulled galvanized steel.

Below-Ground Installation

Along Segment 1, there are existing cable poles on which the distribution lines transition underground. As the new pole positions would be slightly offset from the existing poles, some trenching would be required to intercept existing underground conduit and reroute it to the new pole. Trenching activities would typically be performed in an area up to 30 feet of each pole.

Distribution Underbuild

Existing distribution lines are currently carried on poles and towers along portions of the Project alignment. In Segment 1, the existing distribution line, which would be collocated with the Project, would be reconductored and installed on the new poles. One new 85-foot-tall pole would be installed at the junction of Segment 1 and Segment 2. At Meadowlark Junction, the existing distribution line would also be reconfigured and rerouted to the new pole locations, along with an extended access road. Overhead work would occur at two poles at Meadowlark Junction, at a maximum height of 80 feet.

Reconductoring and Re-energizing

As described in the sections above, the Project would include reconductoring and re-energizing existing SDG&E power lines within the existing ROW. With the exception of a small portion of Segment 3, the new conductor serving the Project would be carried on polymer insulators in all segments. In Segment 1, all existing porcelain insulators would be replaced with polymer insulators and Tie Line 680C, which would be collocated with the Project, would be reconductored with aluminum-clad steel-reinforced wire. Within Segment 3, the existing de-energized conductor and porcelain insulators on the north side of the towers would be removed and replaced with polymer insulators and new conductors. The existing conductors in Segment 3 would remain in place.

2.4.3 Alternating Current (AC) Interference Mitigation System

Alternating current (AC) electrical interference effects from the existing power lines on existing underground natural gas pipelines along the Project alignment were investigated for worker safety (e.g., electrical shock) and pipeline hazards (e.g., corrosion). As discussed in greater detail in Section 3.9, *Hazards and Hazardous Materials*, the proximity of the power lines to the natural gas pipelines could create hazards, including subjecting personnel to electric shock up to a lethal level, accelerated corrosion, arcing through pipeline coating, arcing across insulators, disbondment or degradation of coating, or possibly perforation of the pipeline. The results of the investigation concluded that the presence of the power lines does induce a current to the pipelines and exceeds acceptable design limits. Given that the Project power lines would be on the same alignment as those in the investigation, it is presumed that they would have similar effects on these existing pipelines (ARK, 2017). To address this potential hazard, this Project includes an AC interference mitigation system.

This mitigation system would include 11 deep wells and solid state decouplers (SSD), as well as three coupon test stations, installed in the West San Marcos Boulevard/Palomar Airport Road ROW from Via Vera Cruz on the east in San Marcos to a point in Carlsbad approximately 0.4 mile west of White Sands Drive (see **Figure 2-10**) (Aegion|Corrpro, 2018). The system effectively parallels Segment 1. Each well would be 100 feet deep and 6 inches in diameter, though the upper 30 feet would be 8 inches in diameter to allow for a polyvinyl chloride (PVC) casing. Each well would contain a copper grounding rod connected to a copper wire, in turn connecting the well to a SSD, and backfilled with conductive concrete.

Each SSD would be housed in a pedestal composed of fiberglass casing generally measuring 14 inches by 9 inches and 36 inches in height. Once installed, the base of the pedestal would be buried 8 to 12 inches below grade, leaving up to 28 inches exposed at ground surface. The pedestal would house the SSD mechanism, as well as the wires and cables connecting it to the wells and the pipeline. It would be locked for security purposes.

To conduct periodic tests to monitor the functionality of the AC interference mitigation system, three coupon test stations would also be installed in the West San Marcos Boulevard/Palomar Airport Road ROW. Each test station would consist of a 2-inch PVC pipe fitted with a lockable lid and containing a plastic terminal board and wire leads to the pipe and coupon. Each coupon test station would be located directly above the subject pipeline. The coupon test station would be installed below ground 4 to 12 inches from the pipe. For more information on coupon test stations, see Section 2.5.9, *Belowground Construction*, located below.

2.4.4 Right-of-Way Requirements

Segment 1

SDG&E currently has existing easements and franchise agreement rights along a 10- or 20-foot-wide SDG&E ROW corridor. In portions of the corridor where the existing easement is 10 feet wide, additional ROW would be acquired to provide a 20-foot-wide easement and accommodate the new structures. In total, this additional ROW area measures 5,146 linear feet and comprises about 1.2 acres.

The legal parcels that would be affected by the proposed additional ROW area are located along the south side of West San Marcos Boulevard at San Marcos High School (i.e., Poles 11 to 20) and from the vicinity of Viewpoint Drive west to the vicinity of Acacia Drive (i.e., Poles 26 to 37). At San Marcos High School, the ROW expansion would be 7 feet to the north, and 3 feet to the south, along the existing ROW. From Pole 26 to a point midway between Poles 30 and 31, the ROW would be extended 10 feet to the north of the existing ROW. There is an exception in the area at Pole 27, where the new ROW would be 17 feet wide north from the existing ROW. This area of new ROW tapers to 10 feet in width moving either direction away from Pole 27. From the midway point between Poles 30 and 31 to Poles 37, the ROW would be expanded 6 feet to the north and 4 feet to the south of existing ROW (SDG&E, 2018c). These areas of additional ROW are shown in Figures A-2 to A-6 in Appendix A.

SOURCE: SDGE, 2018

TL 6975 San Marcos to Escondido Project

Figure 2-10

AC Interference Mitigation System

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SDG&E currently owns the approximately 1.87-acre parcel that contains San Marcos Substation. All anticipated work to integrate the new power line would be done within the existing SDG&E substation area. No new ROW would be required.

Construction access and permanent access are currently provided by existing SDG&E easements and SDG&E franchise rights. No additional land acquisition for access purposes is anticipated.

Segment 2

SDG&E currently has valid easements and franchise agreement rights in Segment 2 along a 150-foot-wide SDG&E corridor. This segment is approximately 2.8 miles long and adjacent to the existing Tie Line 13811/13825 power line. The Project would be constructed within this SDG&E corridor approximately 30 feet east of centerline of the existing Tie Line 13811/13825 structures. All of the new steel poles would have graded roads and access/maintenance pads built to them to facilitate construction and provide long-term maintenance access. Construction access and permanent access are currently provided by existing SDG&E easements and SDG&E franchise rights. No additional land acquisition for access purposes is proposed.

Segment 3

SDG&E currently has valid easements and franchise agreement rights along an existing SDG&E ROW corridor in Segment 3. All pole replacements within Segment 3 have existing graded roads and access/maintenance pads to facilitate construction and long-term access. The new poles located near Escondido Substation would not require any grading and existing access is sufficient. Construction access and permanent access are currently provided by existing SDG&E easements and SDG&E franchise rights. No additional land acquisition for access purposes is proposed.

SDG&E currently owns the 6-acre parcel that contains the Escondido Substation. All anticipated work to integrate the Project would be done within the existing substation area. No new ROW would be required.

TABLE 2-3
NEW RIGHTS OF WAY REQUIREMENTS

Project Segment	Length (feet)	Area (acres)
Segment 1 Rebuild	5,146	1.2
Segment 2 New Build	0	0
Segment 3 Reconductoring/Re-energizing	0	0

SOURCE: SDG&E, 2017

2.5 Project Construction

This section includes an overview of the schedule, sequencing, workforce, and typical construction methods and equipment requirements for Project construction. The types of work described include pre-construction preparation, pole installation, conductor stringing, removal of existing facilities, helicopter use, construction within substations, and belowground construction.

2.5.1 Construction Schedule and Sequencing

As shown in **Table 2-4**, pre-construction activities (including establishment of staging areas and delivery of materials to established SDG&E yards) would commence in December 2019.

TABLE 2-4
POWER LINE CONSTRUCTION SCHEDULE

Project Activity	Duration (days)	Anticipated Start and End Date
Pre-Construction Activities	30	Dec 30, 2019 – Feb 7, 2020
Access road construction/refreshing	63	Feb 2020 – Apr 2020
Material haul	33	Jan 21, 2020 – Mar 2, 2020
AC interference mitigation system installation	77	Feb 2020 – Apr 2020
Auger holes, direct-bury poles: (approx. 32 poles)	60	Segment 1: Feb 2020 – Mar 2020 Segment 2: Mar 2020
Pier Foundation construction, approx. 26 poles	125	Segment 1: Feb 2020 – May 2020 Segment 2: May 2020 – Aug 2020 Segment 3: May 2020
Micropile Foundation construction, up to 26 poles[a]	125	Segment 1: Feb 2020 – May 2020 Segment 2: May 2020 – Aug 2020 Segment 3: May 2020
Structure installation and assembly, per crew, two crews required (including old pole removal) (approx. 100 new structures, 19 removed structures)	99	Segment 1: Mar 2020 – May 2020 Segment 2: Aug 2020 Segment 3: May 2020
Stringing activities/transfer conductor/sagging activities	121	Segment 1: May 2020 – Jul 2020 Segment 2: Sep 2020 – Oct 2020 Segment 3: Jul 2020 – Sep 2020
Trenching for installation of underground cables	98	Segment 1: May 2020 – Jul 2020
Demobilization/right-of-way restoration and cleanup/road refreshing	99	Segment 1: Jul 2020 – Sep 2020 Segment 2: Oct 2020 – Nov 2020 Segment 3: Sep 2020 – Oct 2020

NOTE:
[a] Micropile foundations may be substituted for pier foundations due to site-specific substrate or access conditions, or to minimize disturbance to a sensitive resource. Therefore, micropile foundations are shown to have the same construction schedule as pier foundations.

SOURCE: SDG&E, 2017, 2018c

Construction would occur in three phases along the Project alignment. First, access to the proposed pole locations would be established, the pole installation work areas would be graded, direct-bury pole locations would be bored, and concrete foundations would be poured for the pier foundation poles. The new poles would then be installed, with the existing conductors temporarily transferred to the new poles. When a new segment of poles is established, the existing conductor would be removed, the new conductor pulled into place, and then energized.

In the case of Segment 3, existing insulators and other equipment on the towers would be replaced prior to the installation of the Project. The final phase would be the removal and disposal of the existing poles, insulators, etc., with the exception of those on which third-party communication wires are in place. In those cases, pole removal would be delayed until the communication company transfers those wires to the new poles. Segment 3 would not be subject to pole installation and removal activities, as the existing towers in Segment 3 would be used to support the Project.

Work for Segment 1 would require a total of up to 8 months from the start of pole placement activities to the conclusion of demobilization/right-of-way restoration and cleanup/road refreshing. Similarly, work for Segment 2 would require a total of up to 9 months and work for Segment 3 would require a total of up to 6 months. However, actual construction activity (and disturbance) would occur at a given point would occur for a much shorter period of time, and then move along the alignment. In the case of the Project, it is anticipated that actual work activity at any given point along the alignment would be accomplished within two to three weeks for each phase.

Scheduling work at the substations would not be dependent on the other Project activities. Substation work would occur over the course of four months, totaling 10 to 12 weeks of active work. The work would be coordinated to reduce or avoid outage impacts to the system during construction. In any case, the substation work would be completed prior to the energization of the Project.

Although nighttime construction is not anticipated, it may be required as a result of a condition of an agency permit or local traffic control direction from one of the study area jurisdictions. Therefore, this analysis will consider the possibility of limited nighttime work.

2.5.2 Construction Workforce and Equipment

It is estimated that the Project would involve up to 85 construction workers. Construction activities would involve several crews working concurrently at different locations. Power line construction would be conducted using stringing crews to string the conductor, foundation crews to work on the power pole structures, and grading crews to prepare the structure sites and access for construction. In addition, the installation of underground power lines would also involve construction crews. It is assumed that up to 55 workers could be in action at one time during power line construction, assuming that foundation construction occurs concurrently with direct-bury construction (**Table 2-5**). Refer to **Table 2-6** for a list of anticipated construction equipment to be used and the number of construction personnel.

TABLE 2-5
ANTICIPATED CONSTRUCTION EQUIPMENT

Equipment Type	Equipment Use
Two-ton flatbed trucks	Haul materials (including new poles)
Aerial bucket trucks	Access poles, string conductor, modify structure arms, provide guard structures, and other various uses.
Air compressors	Operate air tools
Asphalt grinder	Grind asphalt
Backhoe	Excavate trenches
Bobcat	Excavate trenches
Boom truck	Access poles and other height-restricted items; Lift/set steel
Boom truck with trailer	Deliver steel, disc, panels and insulators
Bucket truck/man-lift	Set steel; Install equipment; Use as guard structure
Bulldozer	Grade pads and access road; Demolition; Excavate and backfill walls
Bull wheel tensioner	Control conductor at pulling tension during pulling operation
Cable dolly	Pull cable
Cable dolly (trailer)	Transport reels of conductor (no engine, can be pulled by assist truck)
Compactor	Compact soil; Clear/grub/finish
Concrete saw	Cut and saw concrete and asphalt
Concrete truck	Transport and process concrete
Crane	Lift, position structures
Crew truck	Transport crew
Desander	Filter drilling mud
Drilling rig/truck-mounted augur	Excavate for direct-bury and micropile poles; Excavate trenches
Drum puller	Transmission and power line pulls
Dump truck	Haul excavated materials/import backfill, as needed
Dump truck with compressor and emulsion sprayer	Street repair
Excavator	Excavate soils/materials (trenching)
Flatbed boom truck	Haul and unload materials
Forklift	Transport materials at structure sites and staging yards
Fuel truck	Contains fuel
Generator	Portable electricity
Grader	Road construction and maintenance
Grout plant	Foundation construction
Helicopter (typically light and medium duty)	Transport materials; String conductor, Install and remove travelers; Set structures
Hydraulic rock-splitting/rock-drilling equipment	Drill through rock, as needed
Hydro vacuum truck	Potholing; Well excavation
Jackhammer	Break concrete and asphalt
Line truck	Install clearance structures; Pull cables/connections
Loader	Demolition; Load dump trucks
Mobile fueling trucks	Refuel equipment
Mower	Clear vegetation
Motor grader	Grading
Mud rotary drill rig	Well excavation
Oil processing rig	Used for transformer oil processing
Paver	Paving of new asphalt
Pickup trucks	Transport construction personnel
Portable generators	Operate power tools
Pulling rig	Pull conductor into position or duct and secure it at the correct tension
Reel trailer	Feed new conductor to the pulling and tensioner; Collect old conductor
Relay/telecommunication van	Transport and support construction personnel
Roller	Repair streets
Scraper	Grade pads and access roads
Service/support truck	Haul materials, equipment, workers
Splice trailer	Store splicing supplies
Spreader	Spread asphalt
Underground combo truck	Pull cable and connections
Tool van	Tool storage
Tractor/Trailer unit	Transport materials at structure sites and staging yards
Vacuum truck	Pump water and liquids, as needed
Water truck	Dust control
Wire truck	Hold spools of wire

SOURCE: SDG&E, 2017

TABLE 2-6
ESTIMATED CONSTRUCTION EQUIPMENT AND PERSONNEL

Activity	People	Days[a]	Equipment	Quantity	Horsepower Rating	Hours of Use per Day	Additive Hours of Use per Day	Segment Number
Access Road Construction/Refreshing	1 crew of 4 - 5	63	motor grader	1	174	6	6	Segment 2
			pickup truck	2	250	5	10	Segment 2
			water truck	1	250	4	4	Segment 2
Material Hand	1 crew of 5	33	yard and field crane or line truck	1 at each end (2 total)	250	4	8	All segments
			fork lift	1 at each end (2 total)	83	4	8	All segments
Preconstruction Activities (Staging Yard Setup Road Refreshing, Vegetation Trimming/BMP Installation)	2 crews of 4 - 5 (8 - 10 total)	30	dump truck	2	250	3	6	All segments
			excavator	2	162	3	6	All segments
			loader	2	37	4	8	All segments
			motor grader	2	174	5	10	All segments
			mower	2	74	4	8	All segments
			tractor/trailer unit	1	250	4	4	All segments
			pickup truck	2	250	4	8	All segments
			water truck	1	250	4	4	All segments
Auger Holes, Direct-Bury Poles Tie Line 6975: (approx. 34 poles)	6 crews of 4 - 5 (24 - 30 total)	60	air compressor	4	78	4	16	Segments 1 and 2
			boom truck	4	250	6	24	Segments 1 and 2
			drilling rig	4	82	6	24	Segments 1 and 2
			line truck	4	250	5	20	Segments 1 and 2
			pickup truck	4	250	4	16	Segments 1 and 2
			pressure digger	2	82	4	8	Segments 1 and 2
			tractor/trailer unit	1	250	3	3	Segments 1 and 2
			water truck	4	250	4	16	Segments 1 and 2

TABLE 2-6 (CONTINUED)
ESTIMATED CONSTRUCTION EQUIPMENT AND PERSONNEL

Activity	People	Days[a]	Equipment	Quantity	Horsepower Rating	Hours of Use per Day	Additive Hours of Use per Day	Segment Number
Pier Foundation Construction (approx. 26 poles)	3 crews of 4 - 5 (12 - 15 total)	125	air compressor	3	78	4	12	All segments
			boom truck	3	250	3	9	All segments
			drilling rig	3	82	7	21	All segments
			excavator	3	162	4	12	All segments
			forklift	3	83	3	9	All segments
			generator	3	84	3	9	All segments
			loader	3	37	3	9	All segments
			pickup truck	3	250	4	12	All segments
			water truck	3	250	3	9	All segments
Micropile Foundation[b] Construction (approx. 13 poles)	2 crews of 4 - 5 (8 - 10 total)	45	air compressor	2	78	3	6	All segments
			backhoe	1	97	3	3	All segments
			crane	2	226	3	6	All segments
			crew truck	2	250	4	8	All segments
			flatbed truck	2	250	4	8	All segments
			forklift	2	83	3	6	All segments
			fuel truck	1	250	3	3	All segments
			generator	2	84	4	8	All segments
			grout plant	1	84	2-3	3	All segments
			pickup truck	1	250	4	4	All segments
			tractor/trailer unit	1	250	3	3	All segments
			water truck	2	250	3	6	All segments
Structure Installation and Assembly, per Crew, 2 Crews Required (including old pole removal) (approx. 100 new structures, 19 removed structures)	6 crews of 4 - 5 (24 - 30 total)	99	pickup truck	6	250	4	24	All segments
			bucket truck	9	250	6	54	All segments
			line truck	6	250	5	30	All segments
			helicopter, light duty	1		4	4	Segment 2
			boom truck	9	250	6	54	All segments

TABLE 2-6 (CONTINUED)
ESTIMATED CONSTRUCTION EQUIPMENT AND PERSONNEL

Activity	People	Days[a]	Equipment	Quantity	Horsepower Rating	Hours of Use per Day	Additive Hours of Use per Day	Segment Number
AC Interference Mitigation System Well Construction	1 crew of 3 - 4	77	mud rotary drill rig	1	500	8	8	Segment 1
			support truck	1	430	4	4	Segment 1
			desander	1	74	6	6	Segment 1
			hydro vacuum truck	1	300	2	2	Segment 1
			water truck	1	550	6	6	Segment 1
			vacuum truck	1	550	8	8	Segment 1
			service truck	1	310	4	4	Segment 1
Coupon Text Station Construction	1 crew of 2 - 3	12	hydro vacuum truck	1	300	2	2	Segment 1
			service truck	1	310	4	4	Segment 1
			support truck	1	430	4	4	Segment 1
			backhoe	1	95	6	6	Segment 1
Stringing Activities/ Transfer Conductor/ Sagging Activities (includes removal of old conductors) (approx. 42 structures reconductored/re-energized)	6 crews of 4 - 5 (24 - 30 total)	121	boom truck	6	250	6	36	All segments
			double-bull-wheel tensioned (heavy)	3	300	6	18	All segments
			drum puller	3	300	6	18	All segments
			forklift	3	83	3	9	All segments
			line truck	6	250	4	24	All segments
			pickup truck	6	250	4	24	All segments
			water truck	3	250	4	12	All segments
			wire truck	3	82	5	15	All segments
			helicopter, light duty	1		4	4	Segment 2 only
Trenching for Installation of Underground Cables	1 crew of 4 - 5	99 (4 - 5 days for concrete truck and wire dolly)	concrete truck	2	400	3	6	Segment 2
			crane	1	226	4	4	Segments 1 and 2
			dump truck	1	250	3	3	Segments 1 and 2
			line truck	1	250	4	4	Segments 1 and 2
			water truck	1	250	3	3	Segments 1 and 2

TABLE 2-6 (CONTINUED)
ESTIMATED CONSTRUCTION EQUIPMENT AND PERSONNEL

Activity	People	Days[a]	Equipment	Quantity	Horsepower Rating	Hours of Use per Day	Additive Hours of Use per Day	Segment Number
Trenching for Installation of Underground Cables (cont.)			wire dolly	1	82	3	3	Segments 1 and 2
			pulling rig	1	82	4	4	Segments 1 and 2
			backhoe	1	97	3	3	Segments 1 and 2
Demobilization/Right-of-Way Restoration and Cleanup/Road Refreshing	6 crews of 4 - 5 (24 - 30 total)	99	backhoe	3	97	4	12	All segments
			dump truck	3	400	5	15	All segments
			excavator	3	162	4	12	All segments
			loader	3	37	4	12	All segments
			motor grader	3	174	4	12	All segments
			mower	3	74	4	12	All segments
			pickup truck	6	250	4	24	All segments
			tractor/trailer unit	3	250	4	12	All segments
			water truck	3	250	4	12	All segments

NOTES:
[a] This reflects the additive total of days of a given construction activity. See Section 2.5.1 for the Project's construction sequencing plan.
b Micropile foundations would be used in lieu of pier foundations only in limited cases which site-specific substrate and/or access conditions prohibit used on pier foundations, or to minimize ground disturbance.
c Segment 1 and Poles 55 and 56 are excluded from the micropile foundation option as the underlying Santiago geologic formation has high sensitivity for paleontological resources which could not be avoided or salvaged and permanently lost through the drilling process used to install this type of foundation.

SOURCE: SDG&E, 2017, 2018c

2.5.3 Pre-Construction Preparation

Work Areas

The Project would be located primarily within existing SDG&E utility corridors and franchise areas that currently have permanent work pads and access roads. Operation and maintenance of the Project would utilize these existing work areas and roads, as well as limited additional proposed permanent work areas also located within SDG&E ROWs and franchises, that would remain following completion of construction activities. These additional work areas are primarily in Segment 2 at each of the new pole locations. **Table 2-7** outlines the anticipated permanent work areas that would be created as a result of the Project. All permanent work areas would be within the temporary work areas described in various construction elements presented below and in **Table 2-8**. These permanent and temporary work areas are shown in the Power Line Route Mapbook found in Appendix A.

TABLE 2-7
PERMANENT WORKING AREAS

Work Area	Quantity	Surficial Area (acres)
New Structure Operation Work Pads[a]	60	1.92
New Permanent Spur Roads[b]	4	0.12
New Permanent Access Road	1	0.18

NOTES: Table contents based on preliminary engineering and subject to change.

[a] Permanent structure operation work pads would be contained within the temporary structure installation work areas described in this chapter. Retaining walls and other area required to create a safe operations work pad are also included within this calculation. Areas are included here only where new work pads would be required. Therefore, the number of new work pads is less than the total number of new structures.

[b] The Project would be located within existing utility corridors with extensive existing access and spur roads. Operation and maintenance of the Project would utilize these existing roads for the vast majority of access requirements. Only newly required spur roads are included within this table because the existing access road network is considered part of the existing environment.

SOURCE: SDG&E, 2017

TABLE 2-8
TEMPORARY WORKING AREAS

Type of Work Area	Quantity	Total Surficial Area (acres)
Stringing Sites	21	1.8
Helicopter Incidental Landing Areas	0	0
Staging Yards	10	74.1
Guard Structures	50	0.40
Pole Work Areas	93	7.3
Turnaround Areas	N/A	N/A
Underground Construction	N/A[a]	0.1
Temporary Poles[b]	TBD	TBD

NOTES:

[a] A total of 360 feet of underground conduit would be installed

[b] Temporary poles would occasionally be used during construction; however, location and quantity are yet to be determined

SOURCE: SDG&E, 2017

Cut and fill would be required at some structure locations to create construction and line maintenance pads. Actual cut-and-fill grading amounts may vary, dependent upon field conditions and the completion of final detailed engineering. For purposes of this analysis, it is estimated that up to 3,751 cubic yards of cut would be generated and up to 4,072 cubic yards of fill would be needed. Up to 3,063 cubic yards of soil would be imported and 2,742 cubic yards of soil would be exported.

Access Roads

Construction access would use existing SDG&E access roads and public roadways to the extent possible. Most work areas are accessible by vehicle on unpaved SDG&E-maintained access roads or by overland travel. To provide crews and equipment access to the associated poles, existing access roads may require smoothing or refreshing; vegetation clearing may be necessary to maintain some existing access roads and re-establish unmaintained access roads. At designated drainage-crossing locations along the access roads, the blade of the smoothing equipment would be lifted 25 feet on either side of the drainage to avoid affecting it. Drainage crossings may be temporarily bridged if necessary to reach a work site. If installed, a bridge would be required to comply with all applicable resource regulations if the subject drainage is determined to be jurisdictional. Based on preliminary engineering, a total of up to 225 linear feet of new spur roads would be required to access Poles 68, 70, 77, and 78 from the existing access road. The four new spur roads would be up to 14 feet wide, requiring up to 0.09 acre of land (**Table 2-9**). A new access road would also be constructed to access Pole 36. It would be 88 feet long and 14 feet wide, requiring an approximate area of 0.03 acre.

TABLE 2-9
ACCESS ROAD CHARACTERISTICS

Type of Road	Description	Surficial Area (acres)[a]
Existing Dirt Road	Typically, double track. May have been graded previously. No other preparation required, although a few sections may need to be regraded and crushed rock applied in very limited areas for traction.	28.46
New Permanent Spur Roads	Roads would be 14 feet wide, graded. No other preparation required, although crushed rock may need to be applied in very limited areas for traction.	0.09
New Permanent Access Road	Roads would be up to 14 feet wide, graded. No other preparation required, although crushed rock may need to be applied in very limited areas for traction.	0.03
Overland Access	No preparation required. Typically, grassy areas that are relatively flat. No restoration would be necessary.	0
Footpath	Footpaths may require minor trimming to traverse. Construction crews would be selective regarding which paths they choose to use.	0

NOTES:

[a] Based on typical road width of 14 feet.

SOURCE: SDG&E, 2017

Vegetation Clearance

The Project would require vegetation clearing associated with access and work areas during construction and operation and maintenance. Construction activities would utilize existing flat, cleared areas such as existing access roads, existing line maintenance pads, and previously disturbed areas. The amount of work space needed for construction of new structures would vary, depending on the size and type of the structure, the surrounding topography, and the presence of sensitive resources. Grading would occur only where relatively flat areas are not already present.

The specific amounts and types of vegetation to be removed may not be known until plant surveys, field reviews, and Project engineering are complete. This analysis conservatively assumes that vegetation would be cleared entirely from all temporary work areas and that natural recruitment of vegetation would be allowed to occur in temporary use areas that are not required for permanent use.

Staging Yards

The Project includes 10 temporary construction staging yards, comprising a total area of 74.1 acres. The staging yards may be used as refueling areas for vehicles and construction equipment; equipment wash stations; pole assemblage; materials and equipment storage, storage containers, construction trailers, and portable restrooms; and, for construction worker parking and security lighting at night for safety. This lighting would be shielded to direct light downward and away from any nearby sensitive receptors. These areas may include generator use for temporary power in construction trailers. Construction workers would typically park and meet at the staging yard at the start of each workday. In-ground fencing would be installed at the staging yards, if not already installed. Gravel may be used for ground cover at staging yards to avoid the unsafe (i.e., uneven) surface conditions and sediment transport off-site.

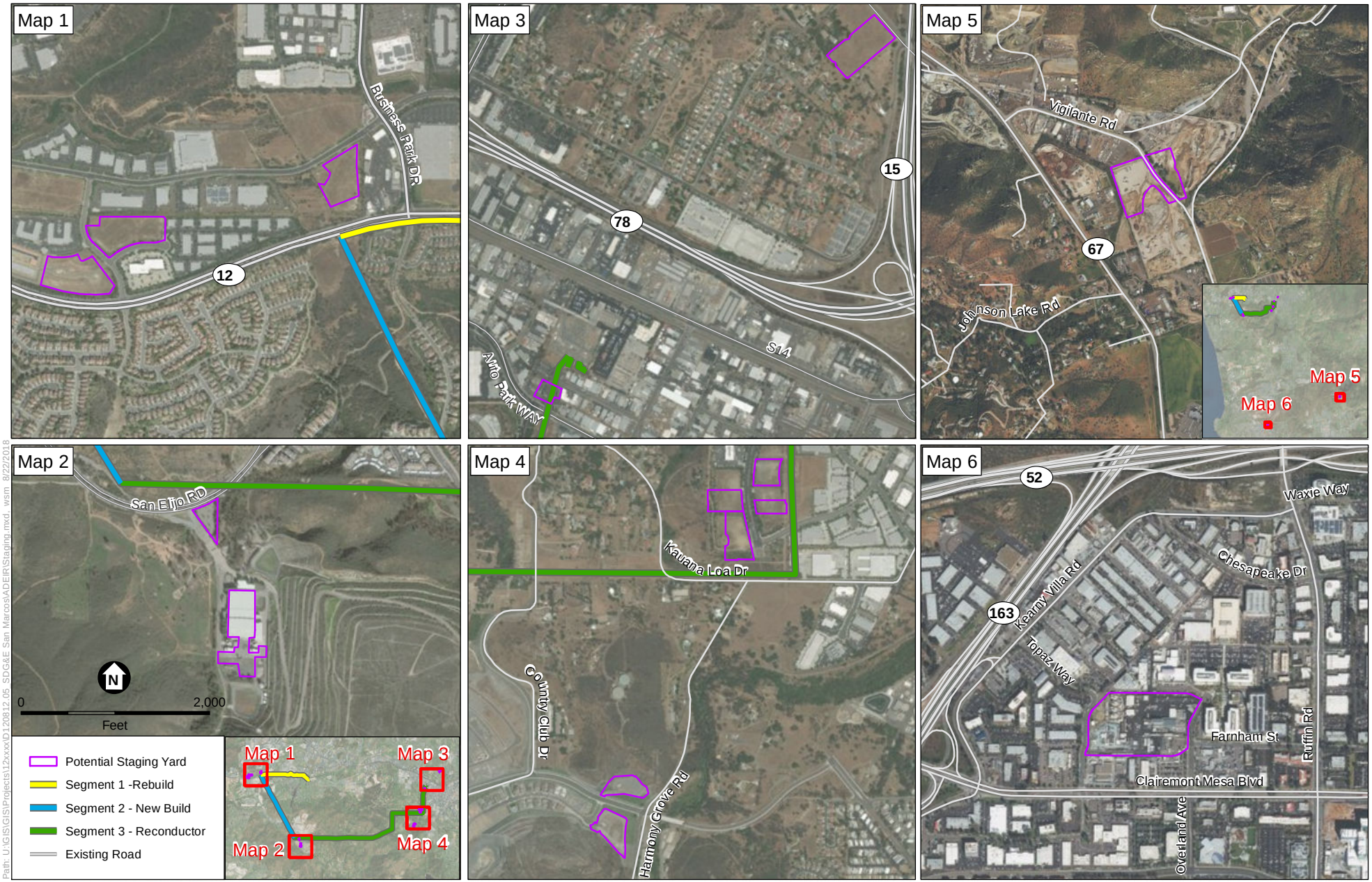
SDG&E has identified candidate staging yards with the size and location to accommodate the scope of the Project (see **Table 2-10**, Potential Staging Yards, and **Figure 2-11**) (SDG&E, 2018a). Previously utilized staging yards have been identified, as well as large undeveloped areas near portions of the Project alignment that have been previously disturbed and/or graded. SDG&E generally does not hold ownership or easement over these candidate sites; therefore, some may not be available when pre-construction activities (described above) would occur.

Two auxiliary staging yards are listed in Table 2-10. These yards are not located in the vicinity of the Project and would be used only for additional materials storage. They would not be used for vehicle refueling, construction trailers, portable restrooms, parking, or equipment wash areas; they would be used to receive and store materials until shipped to the Project. The Kearny staging yard is currently owned by SDG&E and used for other projects. It is located at 5488 Overland Avenue in the Kearny Mesa area of San Diego, approximately 25 miles south of the Project area. The Icon 3PL Materials Yard could serve as a potential vendor drop for materials ahead of yard/site delivery. It is located at 12332 Vigilante Road in Lakeside, approximately 25 to 30 miles southeast of the Project area.

TABLE 2-10
POTENTIAL STAGING YARDS

Staging Yard Name and Location	Description	Approximate Size (acres)	Approximate Location in Relation to Project
Carlsbad Business Park City of Carlsbad	Previously disturbed and graded, within an industrial area along Eagle Drive north of Palomar Airport Road	5.94	Northern portion, 0.36 mile west of Pole 51
Eagle Drive #2 City of Carlsbad	Previously disturbed and graded, within an industrial area along Eagle Drive north of Palomar Airport Road. Graded access within the lot.	5.8	Northern portion, 0.46 mile west of Pole 51
Lionshead Ave #5 City of Carlsbad	Previously disturbed and graded, within an industrial area along Lionshead Avenue north of Palomar Airport Road. Graded access within the lot.	4.5	Northern portion, 0.06 mile north of Pole 51
Montiel and Rock Springs unincorporated San Diego County	Previously disturbed and graded, within a residential area along Rock Springs Road	5	Southern portion, 0.21 mile south of Pole 77
Recycling Plant City of San Marcos	Previously disturbed and graded, within a large warehouse recycling yard along San Elijo Road. Has graded access and paved indoor storage.	Lot 1: 5.6 Lot 2: 1.45	Southern portion, 0.21 mile south of Pole 77
NE District Employee Parking Lot City of Escondido	Existing parking lot with planters at the end of the rows with small trees. Located along Commercial Street.	1	Eastern portion, 300 feet south of Escondido Substation
Harmony Grove unincorporated San Diego County	Two lots, graded and devoid of vegetation, north and south of Harmony Grove Village Parkway.	Lot 1: 2.54 Lot 2: 1.85	Eastern portion, 0.4 mile south of Pole 106
South Andreasen City of Escondido	Four lots that are already graded, with dedicated entry points and low vegetation growth. Located along Citracado Parkway.	Lot 1: 2.95 Lot 2: 1.06 Lot 3: 1.92 Lot 4: 2.2	Eastern portion, 100 feet west of Pole 109
Kearny (Auxiliary) City of San Diego	Owned by SDG&E and located along Overland Avenue in Kearny Mesa	15.98	Auxiliary, not in Project area
Icon 3PL Materials yard (Auxiliary) unincorporated San Diego County	Potential vendor drop for materials ahead of yard/site delivery in Lakeside	14.5	Auxiliary, not in Project area

SOURCE: SDG&E, 2017



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SOURCE: SDGE, 2018

TL 6975 San Marcos to Escondido Project

Figure 2-11
Staging Areas

ESA

2.5.4 Pole Construction

Pole Installation/Removal Work Areas

To accommodate construction equipment and activities during the installation and removal of power poles and structures, and while transferring the power line conductors and re-energizing, temporary work areas would be established. Vegetated areas would be cleared and graded at each location, as needed. Work areas for the different pole types would be as follows:

- Direct-bury steel pole installation, pole removal, and overhead-work-only poles would require up to a 40-foot-diameter work area at the pole site, plus an adjacent rectangular work measuring up to 25 feet by 60 feet.
- Both the pier and micropile foundation steel pole installation would also require up to a 40-foot-diameter work area at the pole site, plus an adjacent rectangular work measuring up to 35 feet by 50 feet.

The work areas for each type of pole foundation would generally be centered on the existing pole location; however, actual area would vary in shape as determined by site conditions and access requirements. Regardless of the shape, this analysis assumes that each work area for a direct-bury steel pole would be no larger than 2,760 square feet and that each work area for a pier or micropile foundation would be no larger than 3,000 square feet. As most of the new poles in Segment 1 and Segment 3 would be located in the immediate vicinity of existing poles with existing permanent work areas, the proposed new work areas could be smaller consistent with the Project's use of existing maintenance pads and access roads.

For purposes of this analysis, temporary impact areas for the installation of all types of poles, including the work area previously described, and an additional potential impact area would be located primarily within the access road to account for minor modifications made in the field during construction. Along West San Marcos Boulevard, this work area would also encompass up to two traffic lanes at each pole site.

After construction, surveys of the vegetation would take place along the alignment to assess the need for clearances pursuant to CPUC General Order 95 and Public Resources Code Sections 4292 and 4293. Vegetation surveys would determine the need for vegetation management activities that would conform to applicable fire safety standards. General Order 95 requires radial clearance of bare line conductors from tree branches or foliage with 18 inches, or 48 inches in high or very high fire threat zones. Within State Responsibility Areas (SRAs), including much of Segment 3, Public Resources Code Section 4292 requires maintaining a minimum of 10 feet of vegetation clearance around poles, and Section 4293 requires a minimum clearance of 4 feet around conductors.

Structure Foundations/Maintenance Pads

Prior to installing the pole structure foundations, vegetation at each site would be cleared and the area would be graded either in a flat or in a terraced fashion, as needed. At some sites, soil may be imported to raise the elevation of the structure pads. Retaining walls may be needed. A

retaining wall may be required at pole locations 55, 60, and 61. The retaining wall at Pole 55 would be 15 feet high, 138 feet in length, with a 4-foot foundation depth and would require 565 cubic yards of net fill. The retaining wall at Pole 60 would be 19 feet high, 144 feet in length, with a 4-foot foundation depth and would require 1,118 cubic yards of net fill. The retaining wall at Pole 61 would be 17 feet high, 145 feet in length, with a 4-foot foundation depth and would require 977 cubic yards of net fill (SDG&E, 2018d).

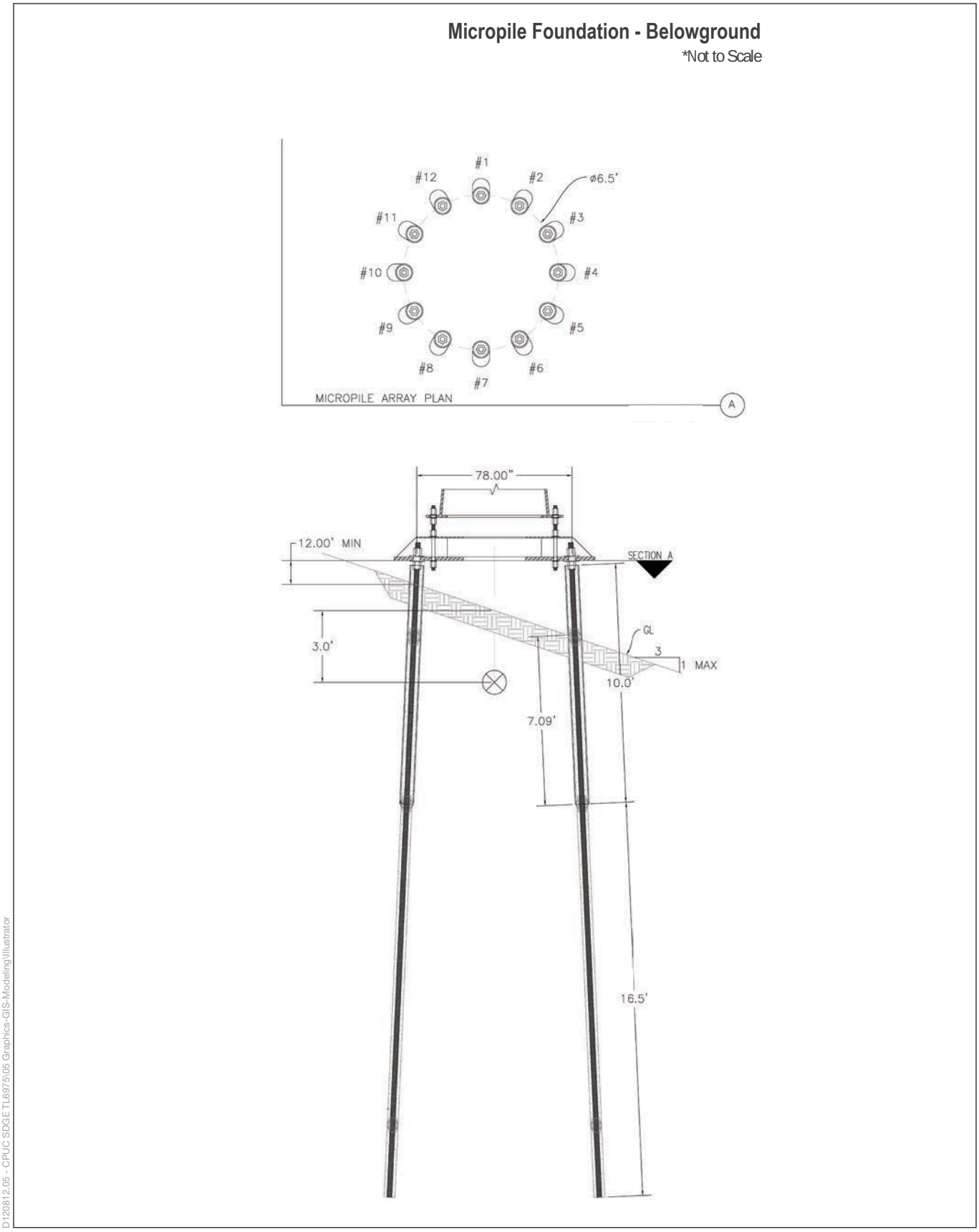
Concrete Pier Foundations

A large auger would be used to excavate the holes, which could range from 6 to 12 feet in diameter. Foundation depths would typically range from 14 to 40 feet, but could increase up to a depth of 50 feet because of soil conditions. If unstable soil conditions are encountered, hole excavations may require the installation of steel casings to stabilize the sides of the excavation. The casing diameter would correspond with the diameter of the excavation. The length of the casing installed would be to the full depth of the excavation. The length of an individual casing section is typically 20 feet; therefore, multiple sections of casing may be used for deeper foundations. Following excavation, a reinforcing steel cage and anchor bolt cage would be installed in each hole. These cages would typically be assembled at the materials storage and staging areas, then transported to the structure site. Typical foundations would require 45 to 100 cubic yards of excavation and a slightly larger volume of concrete used as the foundations would protrude up to 2 feet above ground surface. A few poles in the vicinity of San Marcos Creek in Segment 1 could require up to 167 cubic yards of excavation. The concrete curing period would be up to one week, at which time workers would remove the concrete forms and place backfill around the foundations.

Micropile Foundations

A micropile foundation consists of several small-diameter, drilled, and grouted reinforced foundations. For electric power line structure support such as that proposed for this Project, a series of up to 16 individual micropiles would be drilled in a circular array, as opposed to a larger conventional reinforced concrete pier foundation, as described above. One micropile is typically a small hole up to 8 inches in diameter at the ground line, excavated to a depth of up to 40 feet, depending on the properties of the soil or rock underlying the surface.

The piles would be constructed using high-strength steel casing, high-strength all-thread rebar, and grout. The high-strength all-thread rebar would be inserted into the hole and centered, with the surrounding annulus (i.e., empty space) would be filled with a non-shrink grout. The rebar would protrude above grade to be connected to a transition steel plate that would support the pole structure above grade. Loads from the pole structure would be transferred to the rebar, then transferred from the rebar to the grout to the surrounding soil. The steel casings would project a minimum of 1 foot above ground surface and the piles would connect to transition steel plates by either a steel cap or cast-in-place concrete cap connection. A diagram of a typical micropile foundation is provided in **Figure 2-12**.



SOURCE: AECOM, 2013

TL 6975 San Marcos to Escondido Project

Figure 2-12
Typical Micropile Foundation

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The micropiles are typically installed from a platform situated approximately 6 feet above the ground surface. The platforms and all equipment would be positioned by a truck-mounted crane. The platform would be supported on four to six telescoping legs that would be adjusted to support the platform on slopes. The drilling process would take place from the platform. The drills would be powered by generators or compressors that would either rest on the platform or be supported nearby on the ground. Following the installation of the micropile foundation, a line or boom truck would be used to remove the platform.

Steel Pole Installation for Concrete Pier and Micropile Foundations

Based on preliminary engineering and constructability review, it is anticipated that construction of power line structures would utilize ground equipment such as cranes, flatbed trucks, drill rigs, and excavators. As discussed below in Section 2.5.7, *Helicopter Use during Construction*, helicopters may be used during stringing activities and may be used for pole installation at pole locations 52 through 55 and 61 through 65. New steel poles would be delivered to the structure sites in two or more sections via flatbed truck and assembled on-site using a small truck-mounted crane. See Figure 2-9 for typical depictions of the standard pole types and foundations. After assembly, a large crane would be used to lift and set the pole sections into place on and secured to anchor bolts, which would either be embedded in the concrete foundation or, if micropile foundations are used, attached to the micropile foundations. Steel poles would require the installation of two 8-foot-long by 4-inch-wide grounding rods, up to 6 feet apart. The rods would be buried 8 to 18 inches below ground surface within the established work areas.

Direct-Bury Steel Pole Construction

To install the direct-bury steel poles, holes measuring up to 54 inches in diameter would be excavated by using a truck-mounted drill rig, by hand, or by blasting with the aid of a hand jack powered by an air compressor. The temporary work area would be within a 40-foot-diameter around the base of the pole. The diameter of the steel pole would measure 30 to 42 inches. Plywood sheeting and plastic covering would be used to cover the excavated holes until pole installation. The excavated soil would be temporarily stockpiled adjacent to the hole. Once the pole bases are installed, concrete would be used to backfill the holes around the bases. Any excess soil would be spread and compacted within 10 feet of the pole and as close to the pole as possible. Any additional excess soil would be dispersed evenly and compacted onto existing unpaved access roads where vehicle accessibility would be maintained. Direct-bury steel poles would require the installation of two 8-foot-long grounding rods, up to 6 feet apart connecting to the steel pole. The rods would be buried 8 to 18 inches below ground surface within the established work areas. Steel poles would include galvanized pole steps.

Other Considerations During Foundation Construction

It is not currently anticipated that blasting or dewatering would be required during construction of the Project, although either cannot be ruled out. A detailed discussion of each is found in Section 2.5.9, *Belowground Construction*.

2.5.5 Conductor Stringing

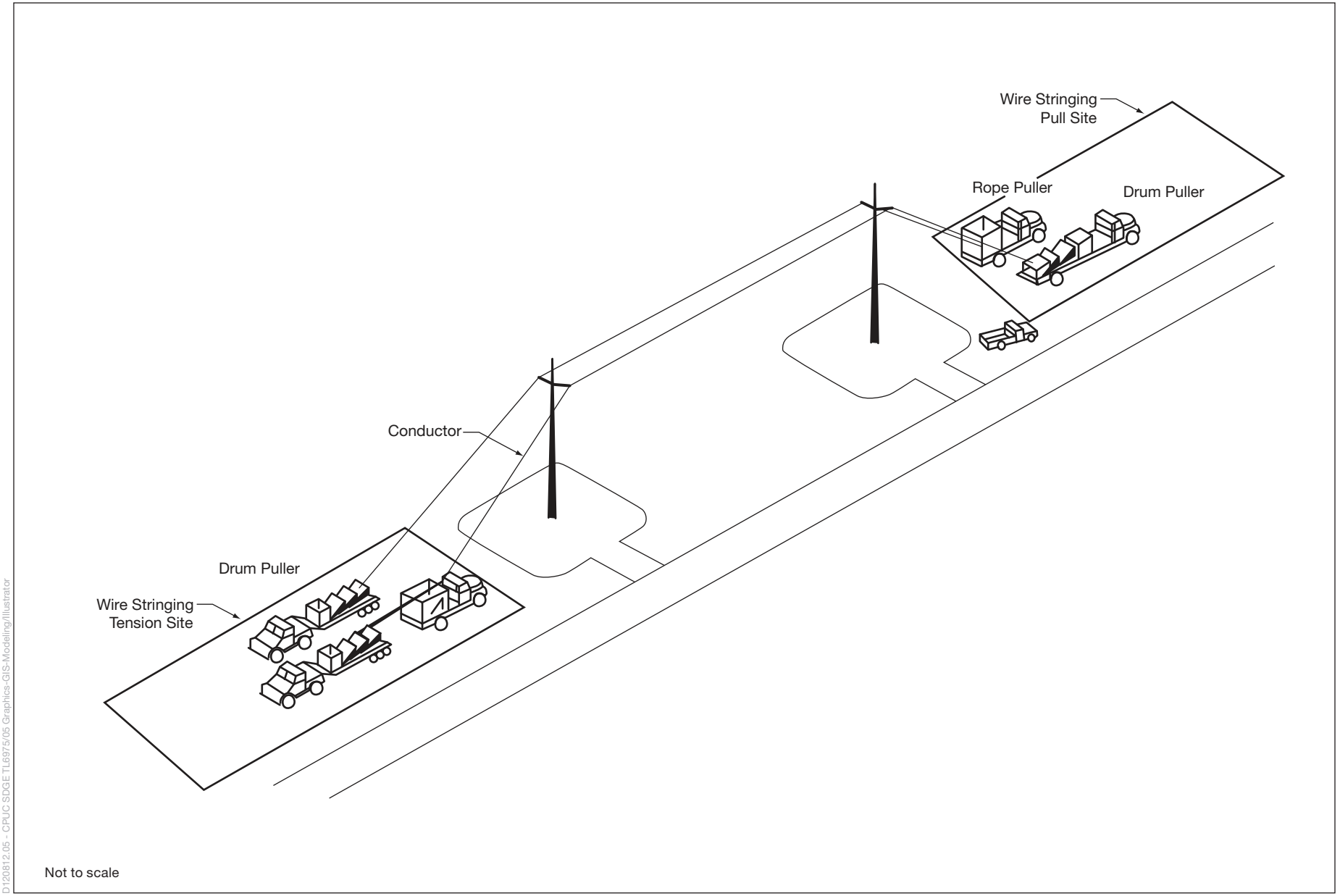
Following guard structure installation, SDG&E would coordinate with the California Independent System Operator (CAISO) to obtain all of the necessary line clearances prior to beginning conductor installation. This would ensure that the existing power lines could be taken out of service and that power could be redistributed to service centers and customers. SDG&E would coordinate line outages to maintain system reliability and construction personnel safety. Based on preliminary engineering, SDG&E does not anticipate any Project-based interruption of service to customers during construction.

The conductor stringing process is illustrated in **Figure 2-13**. Conductor stringing operations begin with the installation of travelers, or "rollers," on the bottom of each of the insulators using aerial man-lifts (bucket trucks). The travelers allow the conductor to be pulled through each structure until the entire line is ready to be pulled up to the final tension position. Following installation of the travelers, a sock line (a small cable used to pull the conductor) or the old conductor is pulled onto the travelers from structure to structure using aerial man-lifts traveling along the ROW. Once the sock line is in place, it is attached to a steel cable and pulled back through the travelers. The conductor is then attached to the cable and pulled back through the travelers using conventional tractor-trailer pulling equipment located at the stringing sites. Anchors would be required to stabilize the equipment. Alternatively, stringing may be conducted by helicopter for areas with limited access, as noted in the discussion in Section 2.5.7, *Helicopter Use during Construction*.

In some cases, sleeves or splices may be installed on the power line. This would occur when the conductor is slightly damaged during stringing operations or if the conductor is not long enough and needs to be joined to another segment. If the conductor is damaged, a repair sleeve would be wrapped around the outside of the conductor and pressed into place to protect the conductor. Full tension splices, or compression splices, would be utilized when the conductor is damaged too severely for a repair sleeve, when the conductor is not long enough to span between dead-end structures, or if stringing locations are spread too far apart. During full-tension splices, the two ends of the conductor are connected with the use of heavy-duty vices.

To tension the conductor, up to 21 designated stringing sites (described below) would be needed. The sites would also be needed for loading/unloading reel of conductor, string equipment, etc. These stringing sites would also be used to collect old conductors removed from the existing lines onto reels for transport offsite. Appendix A, TL 6975 Power Line Route Map, details the locations of all proposed stringing sites.

After the conductor is pulled into place, the sags between the poles would be adjusted. Pursuant to General Order 95, the conductor would be installed with a minimum ground clearance as determined by surrounding land uses, as described in **Table 2-11**. The conductor then would be clipped into the end of each insulator, the travelers removed, and vibration dampers and other accessories installed.



SOURCE: ESA, 2009

TL 6975 San Marcos to Escondido Project

Figure 2-13
Typical Construction Stringing Activity

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ESA

TABLE 2-11
MINIMUM CONDUCTOR GROUND CLEARANCE

Conductor Voltage	Minimum Ground Clearance (feet)	Minimum Ground Clearance with Pedestrian Access Only (feet)
230 kV	30	25
138 kV	30	25
69 kV	30	25
12 kV	25	17

SOURCE: CPUC, 2015

For stringing operations, it takes up to three days to pull in three phases of conductor[7] for approximately 9,000 feet of power line. A helicopter may be used during stringing operations in Segment 2 to install the sock line that would be used to pull in the conductor. See Section 2.5.7, *Helicopter Use during Construction*, below for a description of helicopter use, if necessary for conductor stringing.

Stringing Sites

As noted above, up to 21 stringing sites would be established to provide a safe work space for installation and removal of overhead conductors. These stringing sites would generally be located adjacent to the new poles, as shown in Appendix A, TL 6975 Power Line Route Mapbook. The stringing sites would be up to 150 feet long by 20 feet wide, and located directly in line with, or offset from, the conductor. Each stringing site would require clearing an area up to 0.23 acre. As a result, in total the stringing sites would require up to 1.8 acres of land. Grading of the stringing sites is not anticipated, though depending on topography, some incidental grading may be required at stringing sites to create level pads for equipment.

Temporary Poles

Temporary poles would be used as needed. These poles would be used to temporarily hold conductors while work, including the installation of permanent poles and structures, is being completed in adjacent areas. It is anticipated that each of the temporary poles would be 40 to 60 feet height above ground and would require an approximate 20-foot-diameter work area, plus the use of the existing road. These poles would be in place for conductor transfer or stringing for up to five months. Each temporary pole location would be restored to its preconstruction condition.

Guard Structures

Bucket trucks may be utilized as guard structures during stringing activities. Where wooden poles are used as guard structures, installation requires the temporary use of an area measuring up to up to 1,500 square feet, depending upon guard structure configuration and location. The temporary work area is located in the immediate vicinity of the guard structure location. Guard structure

[7] In terms of electrical transmission for this Project, one phase is analogous to one conductor. A circuit consists of three phases, or conductors. In the context of the statement above, three phases of conductor refer to three strands of conductor.

installation, utilizing wood poles, would include excavating holes that would be up to 3 feet in diameter and 10 feet deep, along with an additional 14-foot by 25-foot temporary work area. Excavated soils would be temporarily stockpiled and replaced within the excavation following stringing activities. If boom trucks are used as guard structures, the temporary work area would also be 14 feet by 25 feet.

Guard Structure Installation

Prior to removing the existing conductor and installing the new overhead conductor, SDG&E would utilize temporary guard structures (i.e., poles) at road crossings, waterways, utility crossings, and other locations where the new conductor could come in contact with existing electrical and communication facilities, or vehicular and/or pedestrian traffic, in the event the line accidentally falls during stringing operations. Different types of guard structures may be used, depending on the site conditions, including boom and bucket trucks and wooden poles.

Where wooden poles would be used as guard structures, they typically are directly embedded wooden poles with a cross beam. Installation requires the temporary use of an area measuring up to 1,500 square feet, depending upon guard structure configuration and location. Guard structure installation, utilizing wood poles, would include excavating holes by auger that would be up to 3 feet in diameter and 10 feet deep. Excavated soils would be temporarily stockpiled and replaced within the excavation following stringing activities. A crane or line truck would lift the poles into place. No concrete foundations would be required to set the guard poles; no grading or other site work is anticipated. The temporary wooden guard poles would be removed following the completion of conductor stringing operations and the holes would be backfilled with excavated soil.

In some locations, such as paved areas, a boom or bucket truck may be used as a guard structure. Alternatively, SDG&E may use flaggers to temporarily hold traffic for brief periods of time while the overhead line is installed at road crossings. Traffic control is typically utilized for small roadway crossings. For extremely large crossings, such as freeways, both guard structures and traffic control may be used as well as netting between the guard structures.

A total of 50 guard structures would be installed at a total of 29 intersections (i.e., roadways, driveways, trails) along the Project alignment. The overcrossing between Poles 6 and 7 (Segment 1) would be completed using a guard structure. Traffic control would be required at all public roadway intersections regardless of the need for guard structures. SDG&E would acquire all required road crossing approvals, including implementation of any special guard structure procedures or requirements, as directed by each applicable land use jurisdiction.

2.5.6 Existing Facilities Removal

As previously described, construction of the Project segments would involve removing certain existing power line poles and structures (mainly wood but with a few steel structures). This would primarily occur in Segments 1 and 3, although the other segments also involve limited pole or structure removal. Many of the 10 poles to be removed in Segment 1 are wooden support poles located across the road from the existing power line. Removal of these poles would also eliminate the guy wires stretching over the roadways. In Segment 3, most of the nine poles to be removed are

located near Meadowlark Junction along San Elijo Road and at the Escondido substation. Refer to Appendix A, TL 6975 Power Line Route Mapbook, for the location of all poles to be removed.

The existing conductor (which are comprised of either aluminum/steel or copper) would be removed from the poles using wire trucks and pulling rigs. Guard structures would be utilized, as needed. For segments requiring reconductoring, such as Segment 3, existing hardware and insulators would be removed and replaced with new polymer insulators and hardware using cranes and aerial man-lifts. Crews may also climb poles to dismantle hardware.

The wooden poles would be removed completely and transported off-site by flatbed truck for disposal at an approved facility. The existing poles are treated with penta oil, creosote, chemonite, and/or chromated copper, depending on the year of installation. The base of the pole would be abandoned in place if it cannot be removed. In some cases, existing poles would be cut at ground level, with the remainder of the pole left in place to avoid impacts on sensitive resources.

If the base of the pole is removed, the void will be backfilled with soils from the pole replacement, or with native soil where excess soil is not available. If additional backfill material is required, clean decomposed granite would be used to backfill the old pole holes. Excess soil from the new holes would be placed on top of the decomposed granite.

The existing steel poles that would be removed from service would be dismantled by cranes and aerial man-lifts in sections. The sections would be transferred to a flatbed truck using a small truck-mounted crane. The steel poles would then be transported off-site for recycling or disposal at an approved facility. Individual steel member cutting (pole dismantling) is anticipated to be completed off-site. No torches are anticipated to be used on the Project right-of-way. If they are needed, the use of torches would be accounted for in the project-specific wildfire plan. Lattice tower removal is not anticipated as part of the Project. After the poles or structures have been removed, any existing concrete foundations would be jack hammered to up to 1 to 2 feet below grade; the debris would be removed and recycled or disposed of at an approved facility. In cases where there would be no excess soil from excavation of for a new pole or structure nearby, the hole would be backfilled with soil or materials similar to those in the surrounding area and the site would be restored.

All structural removal work would be completed from existing work pads (typically 35 feet by 75 feet) located at each existing pole site or temporary work areas for new structures, as needed. No new impact areas are anticipated to be required for pole removal. These areas would be kept clear of vegetation for operation and maintenance activities.

2.5.7 Helicopter Use during Construction

Though they may not be necessary based on actual field conditions at the time of construction, this analysis assumes that helicopters would be utilized as a construction tool for specific activities, including – but not limited to – stringing of overhead conductor, installation or removal of structures, and transportation of equipment associated with the Project. This use would be most likely to occur in Segments 2 and 3; however, the following analysis will assume use Project-wide. Two areas along Segment 2 where direct access may be challenging or the terrain would not allow safe work conditions are candidates for helicopter use. These two areas would include

Poles 52 to 55 (excluding Poles 54.1, 54.2, and 54.3 where no work is proposed) and Poles 61 to 65. SDG&E anticipates that light or medium-duty helicopters (e.g., K-Max and Astar) would be deployed. They would be utilized during daylight hours and flight paths would be limited to the existing SDG&E ROW, except for ingress and egress from the helicopter landing staging area – Palomar Airport. No incidental landing areas (ILAs) are expected to be required for the Project.

Helicopter activities would require up to 8 hours of total operation throughout Project construction. For instance, a helicopter may be used for 4 hours for conductor stringing along Segment 2. Upon completion of that task, a helicopter would not be needed again for two to three weeks, until the next section of line is ready to be pulled. SDG&E would comply with its Aviation Operations Manual that all helicopter operations must follow. This manual covers safety, roles and responsibilities, general flight operations, and training. Relative to the Project, this would include operating procedures that would help reduce the extent of noise exposure at sensitive receptors and reduce potential safety hazards (SDG&E, 2017).

2.5.8 Substation Construction

The Project would not include earthmoving construction activities at the San Marcos or the Escondido substation sites. As discussed previously in Section 2.4.1, *Substations*, a circuit breaker pad, a SF_6 circuit breaker, seven piers, and an A-frame would be installed at the San Marcos Substation. The new power line would connect from the A-frame to the Tie Line 6975 power pole via a single conductor.

At the Escondido Substation, an existing overhead conductor would be transferred from the 138 kV rack to an existing 69 kV bay position for the Project. Three existing 69 kV circuits would be transferred to different bay positions to accommodate this new circuit and avoid power line crossings. The last overhead spans (drop spans) of existing power Tie Lines 6908, 6934, and 689 would be relocated to available bay positions. A new concrete circuit breaker pad and SF_6 circuit breaker would be installed, and the old concrete circuit breaker pad and an oil containment wall would be removed from Bay 16 of the substation. To accommodate this, two foundation poles would be installed just south outside the substation. These new poles would replace five existing poles.

2.5.9 Belowground Construction

The general methods used to construct an underground distribution line are described in the following paragraphs. Within Segment 1, the existing underground distribution line adjacent to the Project would be reconductored. Based on the new pole positions, some trenching would be involved to intercept the existing underground conduit and reroute it to the new pole. Also described below is the installation of the AC interference mitigation system deep wells.

Belowground Distribution Line Construction

The general methods used to construct an underground distribution line are described in the following paragraphs.

Establish Workspace

To accommodate the installation of the underground duct banks, temporary workspaces centered on the duct bank alignments would be established. These areas would be cleared and graded, as needed, to provide a safe operating space for the construction equipment. The Project would include installing up to 360 feet of primary and secondary underground 12 kV conduit from new poles to intercept locations along existing conduit packages. A work space or up to 15 feet in width would be required to accommodate installation of the underground distribution line. A workspace with a total area of up to 0.10 acre would be established prior to construction.

12 kV Distribution Installation

Trenching

Prior to trenching, other utility companies would be notified to locate and mark existing underground utilities along the proposed underground alignment. Exploratory excavations (i.e., potholing) would also be conducted to verify the locations of existing facilities in the ROW. Coordination with the City of San Marcos, City of Escondido, and San Diego County would also occur in order to secure encroachment permits for trenching in the applicable ROW, as required. It is anticipated that some lanes of traffic on active roadways, such as West San Marcos Boulevard, would occasionally be closed during trenching activities. During lane closures, traffic controls would be implemented, as required by the encroachment permit.

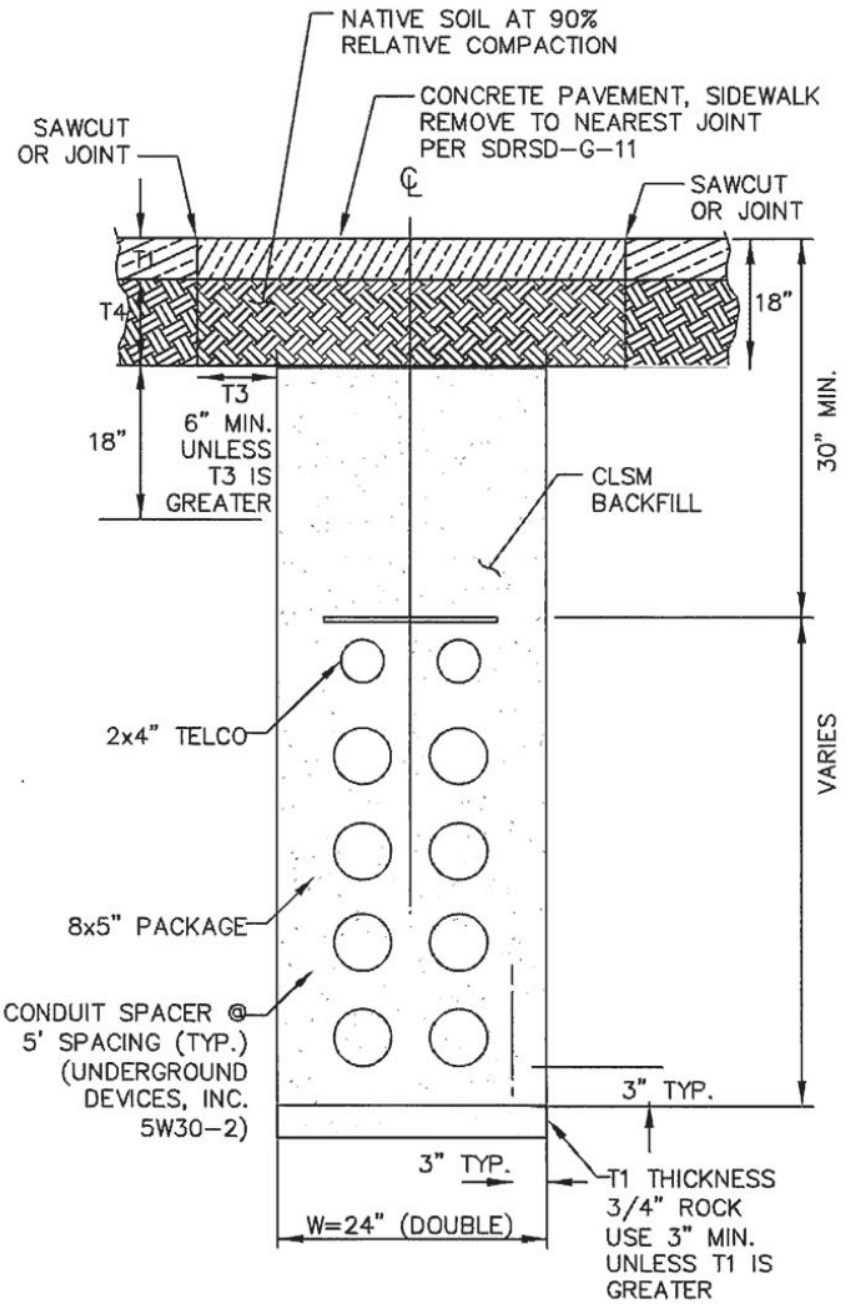
Duct Bank Installation

Duct banks[8] would be installed to intercept the existing conduit packages. Short trenches would be excavated from the pole to the duct bank location. As the trenches for the underground 12 kV duct banks are completed, SDG&E would install the cable conduits (separated by spacers) and pour concrete, slurry, or native soil around the conduits to form the duct banks (**Figure 2-14**). If the installation could not occur within one working day, the trench would be left open and covered with a metal plate until work commences again. The duct banks would typically consist of eight 5-inch-diameter PVC conduits, which house the electrical cables. The vertical configuration dimensions of the duct banks would be up to 1.5 feet wide by 2.7 feet tall.

The duct package generally consists of a single 600-volt to 12 kV distribution circuit. Where the distribution duct bank would cross other substructures that operate at normal soil temperature (e.g., gas lines, telephone lines, water mains, storm drains, sewer lines), a minimal radial clearance of 12 inches would be required. In instances where the duct bank would be installed parallel to other substructures, a minimum radial clearance of 24 inches would be required, although clearances of 2 to 5 feet are preferred from an operations standpoint.

Where the distribution duct bank would cross other substructures that operate at normal soil temperature (e.g., gas lines, telephone lines, water mains, storm drains, sewer lines), a minimal radial clearance of 12 inches would be required. In instances where the duct bank would be installed parallel to other substructures, a minimum radial clearance of 24 inches would be

8 A duct bank is a bundle of PVC conduits, which are surrounded by a protective casing (either concrete or metal). These PVC conduits are used to carry electrical or data cables as part of a utility network.



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SOURCE: SDGE, 2018

TL 6975 San Marcos to Escondido Project

Figure 2-14
Typical Duct Bank

required. Clearances of 2 to 5 feet would be preferred. Where the duct banks cross or run parallel to substructures that operate at temperatures significantly exceeding normal soil temperature (e.g., other underground power line circuits, primary distribution cables, steam lines, heated oil lines), additional radial clearance may be required.

Cable Pulling, Splicing, and Termination

After installation of the conduit, SDG&E would install the distribution cable in the duct banks. To pull the cable through the ducts, a cable reel would be placed at one end of the section, with a pulling rig at the other end. A large rope would then be pulled through the duct using a pull line; the rope would then be attached to the pulling eyes to pull the cable back into the duct. A lubricant would be applied to the cable as it enters the duct to decrease friction during pulling. The electric cables and the existing communication cable would be pulled through the individual ducts at the rate of two or three segments between vaults per day.

AC Interference Mitigation System Deep Wells

Deep Well Installation

As discussed in Section 2.4, *Project Components*, an AC interference mitigation system would be installed as part of the Project to address safety concerns and the effects of AC interference on existing natural gas lines near the Project (Aegion|Corrpro, 2018). The integral part of this mitigation system is the 11 deep wells that would house grounding rods that would direct errant AC away from the existing gas lines.

The wells would be located in public ROW in the cities of San Marcos and Carlsbad (i.e., West San Marcos Boulevard, Palomar Airport Road). Each well would be 100 feet deep and 6 inches in diameter, though the upper 30 feet would be 8 inches in diameter to allow for a PVC casing. Each well would contain a copper grounding rod connected to a copper wire, in turn connecting the well to a SSD, and backfilled with conductive concrete. The wire would be laid in trenches up to 5 feet in depth to match pipeline depth. The trenches would be excavated using backhoes. Once the wire is connected to the pipe and SSD mechanisms, the trench would be backfilled and ground cover returned to its original condition.

After identification of known utilities in the work area, the upper 10 feet would be excavated using a hydrovac system. This method would use high pressure water or air to dislodge compacted soil and vacuum the spoils to a storage receptacle. The rest of each well would be excavated using a truck-mounted mud rotary drill. This method incorporates the use of an impact hammer and drill bit. Cuttings would be removed by water circulating through the drill head. The cuttings and water would be directed to a desander, which would sort the solid materials out and directly the drilling slurry back into the system for reuse.

In addition to lubricating the drill bit, the drilling slurry would serve to stabilize the wall of the well, maintain wall integrity, and temporarily impede the penetration of groundwater into the well. Spoils collected in the desander would be collected in a vacuum truck or bin and taken for sampling at an SDG&E facility. If determined not to be contaminated, the spoils would be held

for disposal with other waste at the SDG&E facility. If found to be contaminated, disposal would occur at a waste site approved and permitted to accept such material.

It is estimated that installation of these wells would require up to 2,000 gallons of water. The water would be either delivered to the work area by truck or from nearby hydrants, with approval from the appropriate owner/operator. The volume of spoils to be removed is estimate to be up to 3,000 gallons.

Coupon Test Stations

The coupon test stations are also underground features of the mitigation system. Like the well connections the pipeline, trenches would be excavated to install the coupon near the pipe and place the wires connecting it to the testing mechanism. The test station would be located immediately above the coupon site. Once the connections are made, the trenches would be backfilled and ground cover returned to its original condition.

Dewatering

Dewatering may be necessary in some locations. The geotechnical study conducted for the Project indicated groundwater levels ranging from 4 to 20 feet below ground surface (GEOCON Inc., 2017). Pole foundation excavations could yield up to 111,000 gallons, while no dewatering is anticipated for the trenches. Prior to construction, SDG&E would acquire coverage from the Regional Water Quality Control Board under the wavier of Water Discharge Requirements, Resolution R9-2014-0041, *Conditional Waivers of Waste Discharge Requirements for Low Threat Discharges in the San Diego Region*. Construction dewatering and dredged material disposal to land are among the activities covered by this waiver.

Blasting

If rock is encountered during excavation and cannot be removed by digging, a hydraulic rock drilling and splitting (rock-splitting) procedure would be used to minimize trenching or drilling time, depending on site-specific conditions. The procedure involves drilling a hole in the rock and inserting a non-blasting cartridge of propellant. Activation of the cartridge is mechanically initiated by an impact generation device. This hydro-fracturing effect causes controlled tensile crack propagation in the rock, but does not result in flyrock, noxious fumes, or ground vibrations.

In the unlikely event that rock blasting would be necessary in areas where solid rock is present and the hydraulic rock drilling and splitting procedure would be ineffective, the following blasting procedure would be executed to minimize both drilling time and noise impacts. The procedure would involve drilling 3-inch-diameter blast holes and inserting explosives. Blasting caps would be connected and a non-electric detonator would be employed. Flyrock protection would be installed prior to blasting and seismographs would be placed in proximity to measure and record peak particle velocity and air blast levels at various distances from the blast site. Dust control would include a combination of steel plate, plus geo-textile fabric with chain-link fence, covering and wetting the blasting surface. If blasting is necessary, the blasting contractor would be required to obtain a blasting permit and explosive permit per applicable local regulatory

ordinances. BMPs would be used before, during, and after all Project-related blasting activities, where necessary, to prevent erosion and off-site sedimentation.

2.5.10 Erosion and Sediment Control and Pollution Prevention During Construction

Soil disturbance would occur at pole installation locations along the power line and at temporary work areas. As described above, these areas would require vegetation clearing and minor grading.

SDG&E would adhere to all applicable National Pollutant Discharge Elimination System (NPDES) Construction General Permit requirements. Projects that disturb 1.0 acre or more of soil are required to obtain coverage under California State Water Resources Control Board (SWRCB) *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities* Order No. 2009-0009- DWQ, as amended by Orders 2010-0014-DWQ and 2012-006-DWQ (General Construction Permit). This permit is intended to control the discharge of pollutants from point sources. The Construction General Permit requires the applicant to develop a Stormwater Pollution Prevention Plan (SWPPP) that includes a selection of BMPs to control erosion, discharge of sediments, and degradation of water quality. Furthermore, the BMPs included in the SWPPP must be monitored and revised throughout the construction process, as needed to respond to field conditions. In addition, SDG&E would implement its *BMP Manual for Water Quality Construction* (SDG&E, 2011). This manual includes BMPs that reduce impacts on soil loss and help ensure BMP usage is consistent with applicable rules and regulations.

2.5.11 Water Supply and Use

Water would be used during construction of the Project as needed for dust control on access roads, for soil compaction during grading, establishment of landscaping, dust suppression, and concrete mixing. Exposed surfaces would be watered twice-daily, or as required in the Project's SWPPP. The Project would require up to 3,079,000 gallons of water during construction and restoration (SDG&E, 2017). SDG&E anticipates that the majority of the water supply for the Project would come from Vallecitos Water District (VWD). SDG&E has received a water availability letter (i.e., "will serve" letter) for the Project which confirms that VWD has sufficient water supply to support the needs of the Project (SDG&E, 2018b). Water would be supplied primarily from a temporary connection to existing hydrants along Segments 1, 2, and 3. In some cases, water trucks would be required to truck water from these nearby facilities to service remote stretched of the Project alignment.

2.5.12 Waste Management, Cleanup, and Post-Construction Restoration

During construction activities, waste and minimal surplus soil would be generated due to pole removal, pole foundation excavation, and general construction activities (e.g., personal waste generated by workers and personnel). Surplus soils are anticipated to be minimal, as it would be used to refill holes left after removal of the existing poles. General waste from workers and

personnel is also expected to be minimal through waste control requirements includes in contract specifications. Disposal of removed poles is discussed below.

SDG&E would restore all areas temporarily disturbed by Project activities (including trenches, stringing sites, structure removal sites, and staging areas) to preconstruction conditions, consistent with fire break requirements. Restoration would include – but not be limited to: reseeding; planting replacement vegetation; restoring removed curbs, gutters, and sidewalks; repaving all removed or damaged paved surfaces; or replacing structures (such as fences), as appropriate. SDG&E does not anticipate using water for these efforts. In addition, all construction materials and debris would be removed from the Project area and recycled or properly disposed of off-site at licensed disposal facilities. See **Table 2-12** for information on construction material disposal. The construction contractor would be required to restore construction work areas to pre-construction condition. SDG&E would conduct a final survey to ensure that cleanup activities have been successfully completed. Final environmental impacts would be documented in a post-construction report.

TABLE 2-12
STANDARD DESTINATION OF RETIRED PROJECT COMPONENTS

Project Structure, Material, or Component	Common End Use or Destination	Estimated Quantities
Wood Power Line Structures/Poles	Sanitary disposal	120 tons
Conductor Cable	Recycled	30,000 feet
Insulators	Sanitary disposal	2 tons
Scrap Steel, Copper, and Other Metal	Recycled	1 ton
Concrete	Recycled	1 ton
Soils	Reused on-site or disposed of pursuant to applicable laws	2,800 cubic yards
Batteries	Recycled	N/A

SOURCE: SDG&E, 2017

To reduce anticipated potential impacts on vegetation resulting from development and use of proposed staging yards, proposed and existing access roads, and public roads may occur, SDG&E proposes to conduct restoration activities under the direction of a habitat restoration specialist. Temporarily disturbed areas where native vegetation would be affected, and that would not need to be maintained in a cleared state for future access and use, would be enhanced through vegetation restoration, habitat reclamation, or a combination of the two. Habitat reclamation involves the elimination of existing exotic vegetation (i.e., weed abatement) to facilitate the natural recolonization of a native habitat. Habitat restoration entails a range of techniques, including seeding, imprinting, and soil and plant salvage. The specific technique, type of equipment, and number of personnel required would depend on the size of the restoration area and the condition of the habitat, including the soil.

Post-construction activities would also include erosion control and trash and debris removal immediately following completion of construction. Where land is rented from private landowners (such as staging yards), post-construction restoration would be completed in consultation with the

landowner. All disturbed areas such as access roads and staging yards would be regraded to existing contours using a grader. Trenches within public roadways would be restored using rollers, pavers, graders, and concrete trucks.

Removed wood poles would be reused, recycled, or disposed. Non-reusable treated wood would be disposed of in a composite-lined portion of a municipal solid waste landfill approved by the Regional Water Quality Control Board, potentially including the Otay Landfill, which is located approximately 40 miles southeast of the Project site.

Temporary Work Areas

Work areas would be required for construction/installation of new facilities, removal of existing facilities, and storage and staging of construction equipment and materials within work areas. Following construction any work space not required for safety during operation and maintenance would be restored, as feasible, to pre-construction conditions following the completion of the Project.

2.6 Operation and Maintenance

2.6.1 General Project Operation and Maintenance Activities and Practice

This section describes the standard operation and maintenance (O&M) activities and procedures that SDG&E currently conducts and would continue to conduct along the Project alignment. For several years, SDG&E has continuously operated the facilities that would be modified by the Project. Following construction of the Project, SDG&E would continue to conduct these activities to be consistent with its standard operating procedures, including the Subregional NCCP Operational Protocols (see Section 3.4, *Biological Resources*). No change in SDG&E's O&M practices is anticipated or included as part of the Project. All O&M procedures would be conducted in accordance with CPUC General Order 131-D. If future O&M work associated with the Project is not exempted from CPUC authorization under General Order 131-D, supplemental CEQA review as part of commission authorization would be conducted.

SDG&E would regularly inspect, maintain, and repair Tie Line 6975, pending agency review of the Project and following completion of its construction. These activities would involve both routine preventive maintenance and emergency procedures to maintain service continuity. SDG&E would perform aerial and ground inspections of the proposed facilities and patrol above-ground components biannually. Helicopters would be used twice a year, once for visual inspection and once for infrared inspection. Inspection for corrosion, equipment misalignment, loose fittings, and other common mechanical problems would be performed at least every three years (per CPUC General Order 165) for power lines. These activities are substantially the same as existing O&M activities along Segments 1, 2, and 3, although they would take place in new locations along Segment 2.

Because of the additional structures and hardware, Segment 2 would require more inspections, with more items that could require repair or replacement, which would result in more trips to the segment relative to existing conditions. The miles traveled by light-duty trucks per month would increase from 156 to 168 miles, primarily due to the additional inspections required. Based on the estimated maintenance the Project would require, overall miles traveled per month would be up to 252, as compared to the 247 miles currently traveled per month.

The Project's slight increase in maintenance activities and related miles traveled would be offset by the decrease in maintenance activities resulting from the proposed pole replacement and reconductoring/re-energizing of the existing de-energized line. The existing power line alignment currently requires some maintenance activities that would no longer be needed because of the installation of steel poles and reconductoring/re-energizing of the existing de-energized line. The existing wooden poles require intrusive inspections every 10 years, which would no longer be necessary with the new steel poles. The de-energized power line requires insulator washing four times a year. This activity would no longer occur once the power line is re-energized and new insulators installed. This would result in a decrease in heavy truck use and mileage, from 91 down to 84 miles per month. De-energized lines on Segment 3 are currently inspected and maintained the same way as energized lines; therefore, when the line is reconductored as proposed, it would not require additional maintenance activities or additional trips along this segment.

2.6.2 Road Maintenance

Road maintenance includes grading of existing access roads, installation of BMPs specified in the SWPPP, spot repair of erosion sites, and vegetation trimming, as needed. The specific BMPs to be installed would be based on site conditions, but typical BMPs for road maintenance include fiber rolls, sandbag barriers, diversion berms, and drainage swales. SDG&E performs road maintenance, as necessary. This may require use of a motor grader, water truck, and pick-up trucks. Typically, road maintenance occurs every other year, depending on the condition of the road (i.e., substantial rain may accelerate erosion and may require more frequent repairs). The new access road and road spurs as part of the Project would be integrated into the road maintenance program.

2.6.3 Pole Structure Brushing and Tree Trimming

In accordance with firebreak clearance requirements in Public Resources Code Section 4292 and Title 14, Section 1254 of the California Code of Regulations, SDG&E would trim or remove flammable vegetation in the area surrounding subject power line poles to reduce potential fire and other safety hazards. One-person crews typically conduct this work using mechanical equipment, consisting of chain saws, weed trimmers, rakes, shovels, and leaf blowers. SDG&E typically inspects poles on an annual basis to determine if brushing is required.

In accordance with tree and power line clearance requirements in Public Resources Code Section 4293 and Title 14, Section 1256 of the California Code of Regulations, as well as CPUC General Order 95, SDG&E would trim trees and vegetation to manage fire and safety hazards and ensure electrical reliability. Regular inspection, regardless of habitat type, is necessary to

maintain proper line clearances. SDG&E conducts tree-trimming activities with a two-person crew in an aerial lift truck and a chipper trailer. SDG&E typically inspects trees in its service area for trimming needs on an annual basis.

2.6.4 Application of Herbicides

An application of herbicides may follow the mechanical trimming of vegetation to prevent vegetation from recurring. This activity generally requires one person in a pickup truck spraying around the base of the pole structure within a radius of up to 10 feet. The employee either walks from the nearest access road to apply the herbicide or drives a pickup truck directly to each pole structure location as access permits. This occurs annually during the wet season (i.e., fall through spring), prior to the last rains of the season. SDG&E practices application according to its annual "Pest Control Recommendation," which includes guidance on quantity, pesticide mix, hazards, restrictions, etc. This application method would be used for all Project facilities.

2.6.5 Equipment Repair and Replacement

Pole structures may support a variety of equipment, such as conductors, insulators, switches, transformers, lightning arrest devices, and line junctions as well as other electrical equipment. As a part of ongoing operation and maintenance activities once the Project has been completed, SDG&E may need to add, repair, or replace equipment to maintain uniform, adequate, safe, and reliable service. SDG&E may remove and replace an existing structure with a larger or stronger structure at the same location or at a nearby location because of damage or changes in conductor size. Equipment repair or replacement requires crew access to the equipment to be repaired or replaced.

2.6.6 Use of Helicopters

SDG&E uses helicopters in the visual inspection of overhead facilities and routinely patrols power lines. SDG&E uses helicopters for patrolling power lines during trouble jobs (e.g., outages or service curtailments) and for conducting maintenance activities in areas that have no vehicle access or are in rough terrain, such as sections of Segments 2 and 3. Helicopter use for routine inspections would occur twice a year for a duration of up to 1 hour per inspection; once for visual inspection and once for infrared inspection. In instances of unplanned repair or fault patrol, each occurrence would also be up to 1 hour in duration.

2.7 Anticipated Permits and Approvals

The CPUC is the Lead Agency under CEQA for the Project. SDG&E must comply with the CPUC's General Orders, including CPUC General Order 131-D, which promulgates permitting requirements for the construction of the Project.

In addition to the PTC, it is expected that SDG&E would need to obtain approval for the Project from other federal, state, and local agencies with jurisdiction over the area and/or resources potentially affected, as required and outlined in **Table 2-13**.

TABLE 2-13
ANTICIPATED POTENTIAL PERMIT, APPROVAL, AND CONSULTATION REQUIREMENTS

Permit/Approval/Consultation	Agency	Jurisdiction/Purpose
Federal Agencies		
Congested Area Plan	FAA	Use of helicopters within populated areas will be coordinated with the FAA, as applicable.
State Agencies		
Permit To Construct (PTC)	CPUC	Overall Project approval and CEQA review
NPDES–General Construction Permit	State Water Resources Control Board	Stormwater discharges associated with construction activities disturbing more than 1.0 acre of land.
Local Agencies[a]		
Encroachment Permit and Traffic Control Plan(s)	Cities of San Marcos, Carlsbad, Escondido, and San Diego County	Construction within, under, or over city roadways (West San Marcos Blvd, Palomar Airport Road, South Rancho Santa Fe Road, San Elijo Road, Country Club Road, Kauana Loa Drive, and Auto Park Way)

NOTES:

Table contents based on preliminary engineering and subject to change.

[a] Noise variance approvals are not included herein because SDG&E would meet and confer with local agencies where construction is anticipated to exceed noise limits published within the applicable local noise codes. Actual noise variances would not be procured; therefore, this process is not listed within this table.

SOURCE: SDG&E, 2017, 2018d

2.8 Applicant Proposed Measures

SDG&E proposes to incorporate Applicant Proposed Measures (APMs) to avoid or reduce potential impacts that otherwise could be caused by the Project. These are considered part of the Project in this analysis and are included as enforceable measures in Chapter 5, *Mitigation Monitoring Reporting and Compliance Program*. These Project features are also discussed in the context of the relevant environmental resource analyses presented in Chapter 3.

If – through its independent analysis and judgement – CPUC determines that any APM would not reduce or avoid substantial adverse changes in the significance of a potential impact to below the level of significance, the APM(s) will be supplemented or superseded by mitigation put forth by CPUC under its authority as lead agency pursuant to CEQA Guidelines Section 15041. The appropriate environmental resource analyses in Chapter 3 present CPUC's assessment of the effectiveness of APMs and any necessary mitigation measures, which are also included in the Project's Mitigation Monitoring Reporting and Compliance Program (MMRCP, Chapter 5).

Table 2-14 below identifies the APMs that are proposed by SDG&E for this Project for each resource area.

TABLE 2-14
APPLICANT PROPOSED MEASURES

APM Number	Description
BIO-1	SDG&E will conduct all construction and operation and maintenance activities in accordance with NCCP Operational Protocols to avoid and minimize impacts on biological resources.
BIO-2	All earth-moving equipment will be free of mud and vegetative material before being mobilized onto work areas associated with the Project.
BIO-3	Except when not feasible due to physical or safety constraints, all Project construction vehicle movement will be restricted to the Project work areas, existing roads, and access roads constructed as a part of the Project and mapped by SDG&E in advance of construction. Approval from a biological monitor will be obtained prior to vehicle travel off of existing access roads.
BIO-4	Civil and land survey personnel will keep survey vehicles on existing roads. During Project surveying activities, brush clearing for footpaths, line-of-sight cutting, and land surveying panel point placement in sensitive habitat prior approval will be required from the Project's biological monitor. Hiking off roads or paths for survey data collection will be allowed year-round as long as all of the other applicable APMs are met.
BIO-5	Prior to the start of construction, the boundaries of sensitive plant populations that require protection will be delineated with clearly visible flagging or fencing by a qualified biologist. The flagging and/or fencing will be maintained in place for the duration of construction. Flagged and fenced areas will be avoided to the extent practicable during construction activities in that area. If impacts on sensitive plant species are unavoidable, SDG&E will perform soil and plant salvage activities to enhance recovery of these special-status plants, consistent with the provisions in the Enhancement Section 7.2.1 of the NCCP. These include the stockpiling of native soil in the area where Nuttall's scrub oak and wart-stemmed Ceanothus occur and top soil replacement after construction. Quality assurances and success criteria milestones for the restoration area as a whole will conform to the standards provided in Enhancement Section 7.2.1 of the NCCP.
BIO-6	***Coastal California Gnatcatcher.*** Prior to construction, SDG&E shall retain a qualified biologist to conduct surveys for the coastal California gnatcatcher in suitable habitat, to determine if any active nests are within or in the immediate vicinity of proposed construction activities. If feasible, SDG&E will avoid construction during the peak breeding season (February 15 – August 31) for coastal California gnatcatcher and migratory birds. When it is not feasible to avoid trimming or removal of vegetation or during the peak breeding season, SDG&E will perform a site survey in the area where the work is to occur. Trimming or removal of vegetation during the peak breeding season will require a preconstruction survey by a qualified biologist to confirm that active nests will not be affected. This survey will be performed to determine the presence or absence of nesting birds. If an active nest (i.e., containing eggs or young) is identified within the construction area during the survey, work will be temporarily halted and redirected away from the site. The qualified biologist in the field will determine a no-work buffer zone around the nest of sufficient size and dimensions that construction activities will not result in disturbance or direct removal of the active nest, or will not cause a breeding bird to abandon its nest. If the nesting and/or breeding activities are being conducted by a federal or state-listed species, SDG&E will consult with the USFWS and CDFW as necessary. Monitoring of the nest will continue until the birds have fledged or construction is no longer occurring on site. ***Migratory Birds.*** Trimming or removal of vegetation during the peak breeding season (February 15 to August 31) will require a pre-construction survey by a qualified biologist to confirm that active nests will not be affected. If an active nest is detected within the construction area during the survey, work will be temporarily halted and redirected away from the site. The qualified biologist in the field will determine a no-work buffer zone around the nest of sufficient size and dimensions that construction activities will not result in disturbance or direct removal of the active nest, or will not cause a breeding bird to abandon its nest.
BIO-7	If a raptor nest is observed during preconstruction surveys, a qualified biologist would determine if it is active. If the nest is determined to be active, the biological monitor would monitor the nest to ensure nesting activities and/or breeding activities are not substantially adversely affected. If the biological monitor determines that Project activities are disturbing or disrupting nesting and/or breeding activities, the monitor will make recommendations to reduce the noise and/or disturbance in the vicinity of the nest.
BIO-8	A biological monitor will be present during all ground-disturbing and vegetation removal activities. Immediately prior to initial ground-disturbing activities and/or vegetation removal, the biological monitor will survey the site to ensure that no special-status species will be impacted.
BIO-9	Wherever possible, vegetation will be left in place or mowed, instead of grubbed, to avoid excessive root damage and to allow for regrowth and to minimize soil erosion.

TABLE 2-14 (CONTINUED)
APPLICANT PROPOSED MEASURES

APM Number	Description
CUL-1	Prior to the initiation of construction or ground-disturbing activities, all SDG&E contractors and subcontractor personnel will receive training regarding the appropriate work practices necessary to effectively implement the following APMs and comply with the applicable environmental laws and regulations. The training will address the potential for exposing subsurface cultural resources and recognizing possible buried resources. The training will include the procedures to be followed upon discovery or suspected discovery of archaeological materials, including Native American remains, and their treatment.
CUL-2	Prior to construction, a qualified archaeological consultant will be retained by SDG&E to complete an analysis and assessment of the potential to disturb resources that were identified during the initial studies from major ground-disturbing activities. The analysis and assessment will be prepared to meet regulatory requirements. Project sites that require testing for a significance determination or data recovery for significant sites, will be treated on a case-by-case basis using all applicable criteria. One area, the San Marcos High School area, has currently been identified as a site that would require further testing and or data recovery.
CUL-3	If grading or road improvements are to be conducted along existing access roads that contain unevaluated or NRHP- or CRHR-eligible resources, monitoring by a qualified archaeological monitor will occur where the access road crosses the site or is located within the boundaries of a site. If surface expressions of the site (i.e., artifacts) are present within the road, equipment blades will be lifted when traversing the site. Additionally, all vehicles will remain on existing dirt roads and/or new access routes identified for the Project. If needed, additional overland travel or access routes will be reviewed by SDG&E's Cultural Resource Specialist, and appropriate avoidance measures and monitoring will be implemented.
CUL-4	Native American monitoring may be implemented for portions of the Project that have the potential to affect unidentified TCRs. The role of the Native American monitor will be to observe Project construction in mapped sensitive areas and facilitate communication of tribal concerns to the qualified archaeologist, the SDG&E Cultural Resources Specialist, and/or construction personnel and tribal council.
CUL-5	A qualified archaeologist will attend preconstruction meetings, as needed, to consult with the excavation contractor concerning excavation schedules, archaeological field techniques, and safety.
CUL-6	Known cultural resources that can be avoided will be demarcated as ESAs. Construction crews will be instructed to avoid disturbance of these areas. A qualified archaeological monitor, under the direction of the qualified archaeologist, will monitor ground-disturbing activities in the vicinity of all ESAs and areas determined to have a high potential for buried cultural deposits within the Project Area. The requirements for archaeological monitoring will be noted in the preconstruction training and reiterated at construction tailboards, as appropriate. During construction, if ESA fencing has been established and the possibility of buried cultural deposits is determined to be low after initial ground disturbance, the onsite qualified archaeological monitor may determine that monitoring is no longer required in that area. The archaeologist's and monitor's duties will include monitoring, evaluating any finds, analyzing collected materials, and preparing a monitoring results report conforming to guidelines for Archaeological Resource Management Reports.
CUL-7	An archaeological monitoring results report (with appropriate graphics), which describes the results, analyses, and conclusions of the monitoring program, will be prepared and submitted to SDG&E's Cultural Resources Specialist following termination of construction activities in a given area when the monitoring program is no longer required. Any new cultural sites or features encountered will be recorded with the SCIC at San Diego State University.
CUL-8	All collected cultural remains will be cataloged and permanently curated with an appropriate institution. All artifacts will be analyzed to identify function and chronology as they relate to the history of the area. Faunal material will be identified as to species.
CUL-9	In the event that cultural resources are discovered, the archaeologist will have the authority to divert or temporarily halt ground disturbance to allow evaluation of potentially significant cultural resources. The archaeologist will contact SDG&E's Cultural Resource Specialist at the time of discovery. The archaeologist, in consultation with SDG&E's Cultural Resource Specialist, will determine the significance of the discovered resources. SDG&E's Cultural Resource Specialist must concur with the evaluation procedures to be performed before construction activities are allowed to resume. If the discovery is not significant; no further work is required. For significant cultural resources, preservation in place shall be the preferred manner of mitigating impacts. For resources that cannot be preserved in place, a Research Design and Data Recovery Program will be prepared and carried out to mitigate impacts.

TABLE 2-14 (CONTINUED)
APPLICANT PROPOSED MEASURES

APM Number	Description
PALEO-1	Prior to the initiation of construction or ground-disturbing activities, all SDG&E contractor, and subcontractor personnel will receive training regarding the appropriate work practices necessary to effectively implement the APMs and to comply with the applicable environmental laws and regulations. The training will address the potential for exposing paleontological resources and procedures to be followed upon discovery or suspected discovery.
PALEO-2	A qualified Project paleontologist (or qualified paleontological monitor working under the direction of a qualified Project paleontologist) will attend a preconstruction meeting, as needed, to consult with the excavation contractor concerning excavation schedules, paleontological field techniques, and safety.
PALEO-3	A qualified paleontological monitor will work under the direction of the qualified Project paleontologist and will be on site to observe excavation operations that involve the original cutting of previously undisturbed deposits with high or moderate paleontological resource sensitivity.
PALEO-4	Prior to construction, a paleontological resource consultant will be retained by SDG&E to complete an analysis and assessment of the potential to disturb resources from major ground-disturbing activities, such as facility pad grading, trenching, or new access road grading.
PALEO-5	In the event that fossils are encountered, the Project paleontological monitor will have the authority to divert or temporarily halt construction activities in the area of discovery to allow recovery of fossil remains in a timely fashion. The Project paleontological monitor shall contact SDG&E's Cultural Resource Specialist at the time of discovery. The paleontologist, in consultation with SDG&E's Cultural Resource Specialist, will determine the significance of the discovered resources. SDG&E's Cultural Specialist must concur with the evaluation procedures to be performed before construction activities are allowed to resume. If the resource is determined to be significant, it may be necessary to set up a small screen washing operation on site because of the potential for small fossil remains. If fossils are discovered, the paleontologist (or paleontological monitor) will recover them along with pertinent stratigraphic data. Because of the potential for recovery of small fossil remains, such as isolated mammal teeth, recovery of bulk sedimentary-matrix samples for offsite wet screening from specific strata may be necessary, as determined in the field. Fossil remains collected during monitoring and salvage will be cleaned, repaired, sorted, cataloged, and deposited in a scientific institution with permanent paleontological collections. A final monitoring report will be completed that outlines the results of the mitigation. The report will discuss the methods used, stratigraphic sections(s) exposed, fossils collected, and significance of recovered fossils.
HAZ-1	A Health and Safety Plan will be prepared and implemented during construction. The Health and Safety Plan will describe the anticipated hazards that construction workers may encounter while working on the Project, the safety measures that must be taken to address those hazards, and the necessary training requirements for personnel working on the Project. Safety hazards and applicable federal and state occupational standards will be identified in conjunction with the development of appropriate response actions, as well as a protocol for accident reporting. The Health and Safety Plan will also identify security and safety requirements for staging areas, storage yards, excavation areas, and any other areas of the Project where hazards may exist during construction activities. In addition, information regarding medical kits, safety equipment, and evacuation procedures will be outlined in the Health and Safety Plan. A qualified safety field representative will be present on site to observe and document adherence to the Health and Safety Plan as needed. The Health and Safety Plan will be prepared by the SDG&E construction contractor and will be available immediately prior to construction.
PS-1	SDG&E will provide the public with advance notification of construction activities. Concerns related to dust, noise, and access restrictions with construction activities will be addressed within this notification.
PS-2	All construction activities will be coordinated with the property owner or authorized agent for each affected park, trail, or recreational facility prior to construction in these areas.
PS-3	As needed, signs will be posted directing vehicles to alternative park access and parking, if available, in the event construction temporarily affects parking near trailheads.
PS-4	All parks, trails, and recreational facilities that are physically impacted during construction activities and are not directly associated with the new permanent facilities, will be returned to an approximate pre-construction state, while still allowing for SDG&E to safely operate and maintain the facilities, following the completion of the Project. SDG&E will replace or repair any damaged or removed public equipment, facilities, and infrastructure in a timely manner.
TRA-1	If construction requires lane closures, traffic delays, or other encroachment of construction activities within public travelways, SDG&E will adhere to local traffic control regulations and establish a traffic control plan as needed to comply with local ordinances. Traffic control plans will describe signage, flaggers, or other controls to be used to regulate traffic where necessary and to maintain a safe transportation corridor during construction.

TABLE 2-14 (CONTINUED)
APPLICANT PROPOSED MEASURES

APM Number	Description
TRA-2	SDG&E will coordinate with local emergency response agencies during construction within existing public roadways to allow safe passage and access by emergency vehicles and equipment.
NOI-1	Construction activities will occur during the times established by the local ordinances, with the exception of certain activities where nighttime and weekend construction activities are necessary, including, but not limited to, construction work timeframes mandated by permit, pouring of foundations, and pulling of the conductor, which require continuous operation or must be conducted during off-peak hours per agency requirements. SDG&E will meet and confer with the applicable jurisdiction to discuss temporarily deviating from the requirements of the noise ordinance, as described in the noise variance process.
NOI-2	SDG&E will provide notice of the construction plans to all property owners within 300 feet of the Project by mail at least one week prior to the start of construction activities. The announcement will state the anticipated construction start window, anticipated completion window, and hours of operation, as well as provide a telephone contact number for receiving questions or complaints during construction. SDG&E will maintain functional mufflers and/or silencers on all equipment to minimize noise levels as well as evaluate the potential use of portable noise barriers.
NOI-3	If blasting is deemed necessary for the construction of Project components, SDG&E will prepare a blasting plan. The blasting plan will be site specific, based on the location(s) of required blasting and location-specific conditions. The blasting plan will include a description of the planned blasting methods and a schedule for the blasting activities. The blasting plan will include measures to minimize noise related to blasting to the extent feasible.

SOURCE: SDG&E, 2017

2.9 Electric and Magnetic Fields Summary

Extremely low frequency (ELF) electric and magnetic fields (EMF) include alternating current (AC) fields and other electromagnetic, non-ionizing radiation from 1 Hz to 300 Hz. Power lines, like electrical wiring and electrical equipment, produce ELF (fields) at 60 Hz (OSHA, 2016). This analysis does not consider EMF in the context of the CEQA analysis of potential environmental impacts because: [1] there is no agreement among scientists that EMF creates a potential health risk, and [2] there are no defined or adopted CEQA standards for defining health risk from EMF. On January 15, 1991, the CPUC initiated an investigation to consider its role in mitigating the health effects, if any, of electric and magnetic fields from utility facilities and power lines. A working group of interested parties, the California EMF Consensus Group, was created by the CPUC to advise on this issue. The California EMF Consensus Group's fact-finding process was open to the public, and its report incorporated public concerns. Its recommendations were filed with the CPUC in March 1992. Based on the work of the California EMF Consensus Group, written testimony, and evidentiary hearings, CPUC's decision (D.93-11-013) was issued on November 2, 1993, to address public concern about possible EMF health effects from electric utility facilities. In August 2004, the CPUC opened an Order Instituting Rulemaking to update the Commission's policies and procedures related to electric and magnetic fields emanating from regulated utility facilities. The final decision was issued in D.06-01-042. The conclusions and findings included the following:

> "We find that the body of scientific evidence continues to evolve. However, it is recognized that public concern and scientific uncertainty remain regarding the potential health effects of EMF exposure. We do not find it appropriate to adopt any specific numerical standard in association with EMF until we have a firm scientific basis for adopting any particular value."

This continues to be the position of the CPUC regarding standards for EMF exposure. The State has not determined that any risk would merit adoption of any specific limits or regulations regarding EMF levels from electric power facilities

Presently, there are no applicable federal, state, or local regulations related to EMF levels from power lines or related facilities, such as substations. However, the CPUC has implemented a decision (D.06-01-042) requiring utilities to incorporate "low-cost" or "no-cost" measures for managing EMF from power lines up to 4.0 percent of total project cost. Four percent of total project budgeted cost is the benchmark in developing EMF mitigation guidelines, and mitigation measures would achieve some noticeable reductions.

Using the four percent benchmark and otherwise in accordance with "EMF Design Guidelines" filed with the CPUC in compliance with CPUC Decisions D.93-11-013 and D.06-01-042, SDG&E would implement low- and no-cost measures to reduce magnetic field levels for the Project.

2.10 References

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ARK Engineering &Technical Services, Inc., 2017. *AC Interference Analysis & Mitigation System Design*, September 22.

California Public Utilities Commission, 2015. General Order 95, Rules for Overhead Line Construction. January.

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San Diego Gas & Electric Company (SDG&E), 2011. *Best Management Practices Manual for Water Quality Construction.* July.

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SDG&E, 2018a. SDG&E TL 6975 San Marcos to Escondido Project (A.17-11-010), SDG&E Response to Deficiency Letter #1, dated January 12.

SDG&E, 2018b. SDG&E TL 6975 San Marcos to Escondido Project (A.17-11-010), SDG&E Response to Deficiency Letter #2, dated February 28.

SDG&E, 2018c. SDG&E TL 6975 San Marcos to Escondido Project (A.17-11-010), SDG&E Response to Data Request #1, dated May 15.

SDG&E, 2018d. SDG&E TL 6975 San Marcos to Escondido Project (A.17-11-010), SDG&E Response to Data Request #2, dated June 1.

SDG&E, 2018e. SDG&E TL 6975 San Marcos to Escondido Project (A.17-11-010), SDG&E Response to Informal Data Request #3(a), dated June 8.

SDG&E, 2018f. SDG&E TL 6975 San Marcos to Escondido Project (A.17-11-010), SDG&E Response to Data Request #3, dated July 16.

SDG&E, 2018g. SDG&E TL 6975 San Marcos to Escondido Project (A.17-11-010), SDG&E Response to Data Request #4, dated August 7.

SDG&E, 2018h. SDG&E TL 6975 San Marcos to Escondido Project (A.17-11-010), SDG&E Response to Data Request #5, dated November 6.

SDG&E, 2018i. SDG&E TL 6975 San Marcos to Escondido Project (A.17-11-010), SDG&E Response to Data Request #6, dated November 21.

CHAPTER 3

Environmental Checklist and Discussion

3.1 Aesthetics

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
1.	**AESTHETICS — Would the project:**				
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c)	Substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d)	Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?	☐	☐	☒	☐

For the purposes of this analysis, the visual environmental impact is based on review of a variety of data provided by SDG&E as independently verified by the CPUC, including Project maps, drawings, aerial and ground level photography of the study area, local planning documents, and computer-generated visual simulations. The study area defined for this aesthetics analysis includes the landscapes directly affected by the Project and the surrounding areas from which the Project would be visible.

3.1.1 Environmental Setting

Aesthetic impacts may occur if a project would alter the perceived visual quality of the environment. This can result from changes to the visual character of the area, alteration of a scenic vista, changes to a scenic resource, or creation of a new source of light or glare that would affect views in the area. They are defined as follows:

- **Visual character** refers to the features of the natural (e.g., landforms, vegetation, rock and water features) and built (e.g., buildings, utility infrastructure) features of the landscape that contribute to the public's experience and appreciation of the environment.
- A **scenic vista** is generally considered to be a location from which the public can experience unique and exemplary views, which are typically from elevated vantage points that offer panoramic views of great breadth and depth.
- **Scenic resources** are specifically defined as features that are visible from a state scenic highway.
- **Light** is the amount of luminance emitted from an object and **glare** is the result of a large contrast in luminance between a bright light source and dark background within a viewer's field of vision.

The degree of impact also depends on viewer sensitivity to aesthetic changes. For this analysis, viewer sensitivity is categorized into high, moderate, and low visual sensitivity ranges. These ranges are based on a composite measurement of the overall susceptibility of an area or viewer group to adverse visual or aesthetic impacts, given the combined factors of:

- **Visual quality:** the overall visual impression or attractiveness of an area as determined by the particular landscape characteristics, including landforms, rock forms, water features, and vegetation patterns.
- **Viewer types and volumes of use:** the types of people viewing the affected landscape including, for example, motorists traveling on nearby roadways, park and other recreational area users, as well as residents and business patrons in Carlsbad, Escondido, Vista, San Marcos, and unincorporated San Diego County. Land uses that derive value from the quality of their settings, such as parks or scenic routes, are considered particularly sensitive to changes in visual setting conditions.
- **Viewer exposure:** landscape visibility, viewing distance, viewing angle, extent of visibility, and duration of view. For the purposes of this analysis, viewing distance is described in three general categories. Foreground refers to views observed from within 0.25 to a 0.5 mile from viewer; middle-ground refers to views from the foreground out up to three to five miles from the viewer; background extends from that middle-ground distance outward, as far as the view extends.

Visual Quality of the Region

The Project would be located within the coastal hills of San Diego County's northern valley, near Lake San Marcos, the San Elijo Hills, and Double Peak Regional Park. Elevations along the Project alignment range from 500 to 1,150 feet above sea level. The Project crosses diverse terrain with a variety of vegetation communities. As rainfall is very limited in the region, native vegetation is typically sparse, consisting of low growing chaparral and coastal sage scrub on the mesas (flat-topped hills). However, riparian vegetation is present along ravines and in canyon drainages. Open areas of exposed rock and light-colored soil are common elements of this landscape. The study area is comprised of urban/developed land, orchards/vineyards, intensive agricultural areas, coastal sage scrub, chaparral, grasslands, wetlands, marshes, riparian forests, woodlands, and freshwater areas. Scenic landscape features in this area include surrounding hillsides, Lake San Marcos, Rancho La Costa Preserve, Diamond Trail Preserve, and Escondido Creek Preserve.

The Project would traverse the cities of San Marcos, Escondido, Vista, and Carlsbad, as well as areas of unincorporated San Diego County. It would be located along a variety of land uses, including residential, commercial, industrial, open space/park/recreation, agriculture, public/institutional, roads, freeways, undeveloped/vacant land, access roads, and mixed-use land uses. The majority of Segment 1 is adjacent to San Marcos Boulevard, as well as commercial, industrial, and residential development in an urban area. Segment 2 would be located primarily in residential and open space areas. Segment 3 would traverse residential areas, undeveloped/open space, rolling hills, and industrial and commercial areas.

Within the study area there are numerous above-ground electric utility components, including poles, transmission infrastructure, and overhead conductors supporting existing power lines, as well as two existing substations. The Project would be situated between two major regional interstate highway corridors: Interstate 5 (I-5), located approximately 5 miles to the west, and I-15, approximately 1 mile to the east. By design, the local roadways in this part of San Diego generally follow curved patterns, following the natural topography of the adjacent hillsides.

Scenic Highways. There are no highways within 1 mile of the Project that are designated or eligible for State scenic designation by the California Department of Transportation

(Caltrans). The nearest Eligible State Scenic Highway is I-5, approximately 5 miles west of the Project (Caltrans, 2011).

Scenic Vistas. There are no officially designated scenic vistas in the study area. However, scenic views are available from informal recreation areas in Rancho La Costa Preserve, Diamond Trail Preserve, and Escondido Creek Preserve.

Light and Glare. Much of the Project study area is comprised of developed and urbanized lands where nighttime lighting is part of the built environment, which includes vehicle headlights, street lighting, parking lot lighting, security lighting, building lighting, as well as various other sources of light from surrounding commercial, industrial, and residential uses. However, light conditions in the open space areas, preserves, and undeveloped lands crossed by the Project are typically darker with the primary light source being associated with nearby streets and vehicles.

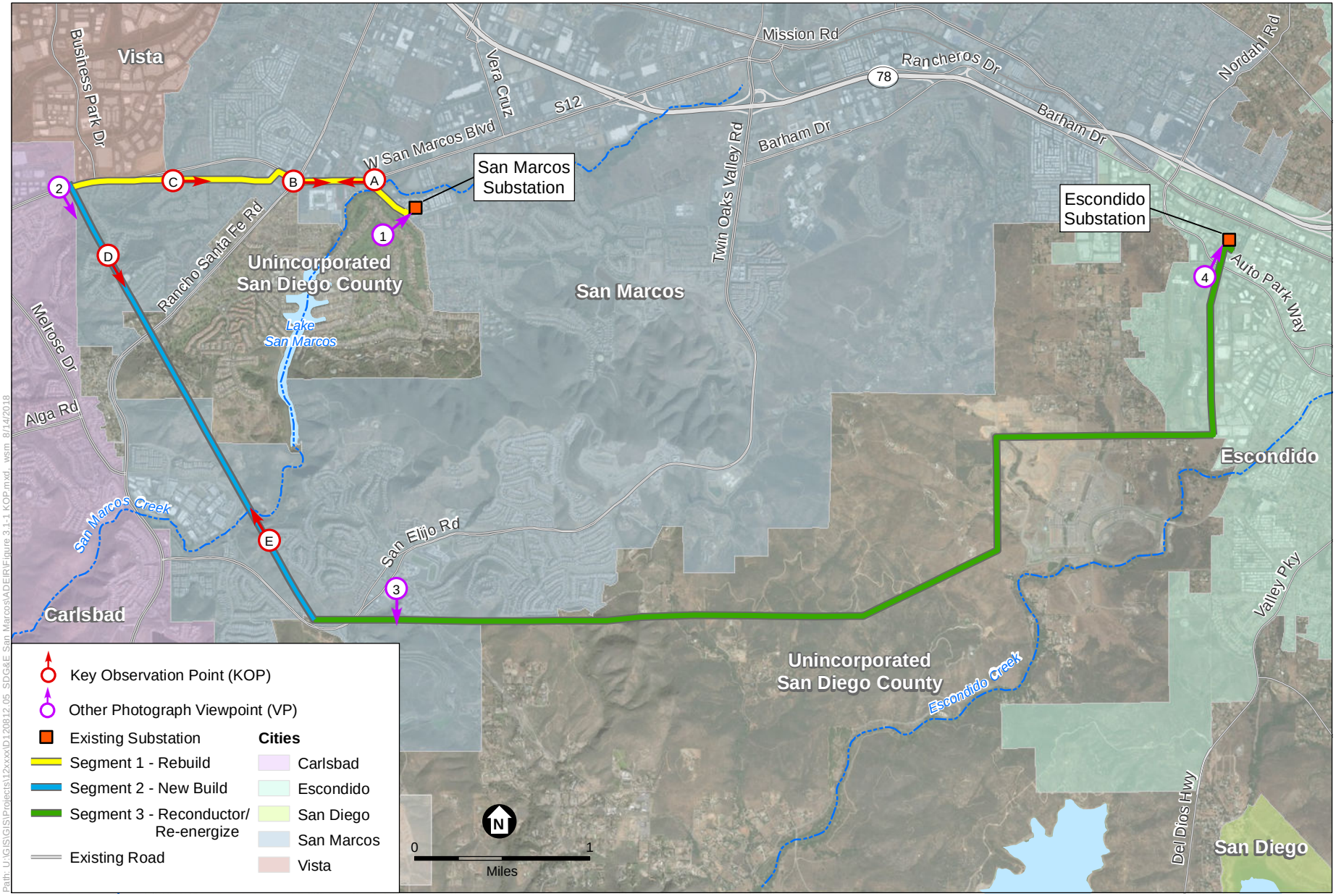
Visual Character. **Figure 3.1-1** shows the locations of Project components and photograph viewpoints (VP). **Figures 3.1-2** through **3.1-10** present nine photographs showing existing representative visual conditions and public views within the study area. To facilitate this impact analysis, five of these VPs were chosen as representative key observation points (KOP) – VPs which could have higher viewer sensitivity due to location, number of viewers, visual surroundings, etc. The impact analysis includes visual simulations of these five KOPs showing the existing view juxtaposed with a simulated view with the Project in place.

Table 3.1-1 presents the five primary components of the Project in terms of potentially affected viewers and representative photographic views (if applicable). Where notable visual changes could occur, the Project's appearance is shown in a set of before-and-after views, as seen from key public viewpoints listed under "Visual Simulation" within Table 3.1-1.

TABLE 3.1-1
SUMMARY OF PROJECT COMPONENTS, PRIMARY VIEWERS, REPRESENTATIVE PHOTOGRAPHS, AND VISUAL SIMULATIONS

Proposed Project Component (Existing View)	Potentially Affected Viewers	Key Observation Point (KOP)	Visual Simulation
San Marcos Substation (Figure 3.1-2)	Users of St. Mark's Golf Club; residents near substation; drivers, bikers, and pedestrians on Discovery Street.	N/A	No simulation
Segment 1 (Figures 3.1-3 through 3.1-5)	Users of St. Mark's Golf Country Club; students and faculty at San Marcos High School; students and faculty at Valley Christian School; workers and patrons near the intersection of West San Marcos Boulevard and Rancho Santa Fe Road; drivers, bikers, and pedestrians on West San Marcos Boulevard; residents along the transmission line.	A through C	Figures 3.1-11 through 3.1-13
Segment 2 (Figures 3.1-6 through 3.1-8)	Publicly accessible points in residential areas along the transmission line; Workers and patrons associated with commercial development along Melrose Drive; drivers, bikers, and pedestrians on White Sand Drive, South Rancho Santa Fe Road, Via Alondra, Via del Corvo, Melrose Drive, and San Elijo Road; users of Simmons Family Park, Diamond Trail, and the Rancho La Costa Preserve.	D through E	Figures 3.1-14 through 3.1-15
Segment 3 (Figure 3.1-9)	Users of the Sage Hill Preserve, Escondido Creek Preserve, Escondido Creek; workers in warehouses and offices north of Harmony Grove Road; workers and patrons of commercial development along Citracado Parkway and surrounding the substation; drivers, bikers, and pedestrians on San Elijo Road, Elm Forest Road, Questhaven Rd, Harmony Grove Road, Citracado Parkway, and Auto Park Way.	N/A	No simulation
Escondido Substation (Figure 3.1-10)	Workers and patrons of surrounding commercial and industrial development.	N/A	No simulation

SOURCE: ESA, 2018



SOURCE: SDGE, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.1-1

Key Observation Point and Viewpoint Locations

ESA

Path: U:\GIS\GIS\Projects\12xxxx\D120812.05_SDG&E San Marcos\ADEIR\Figure 3.1-1 KOP.mxd, wsm, 8/14/2018

San Marcos Substation

The San Marcos Substation (VP 1) is located on a 1.87-acre industrial site within an urbanized area of the City of San Marcos. It is surrounded by single-family housing, with Discovery Street creating a southwest boundary and has two power lines that access the substation. Much of the existing substation is obscured from view due to the presence of an 8-foot-tall wall and landscaping (see **Figure 3.1-2**).

Figure 3.1-2
VP 1, View of San Marcos Substation from Discovery Street – Looking Northeast

Segment 1

Segment 1 is approximately 1.8 miles long and includes a single-circuit, 69 kV transmission line on wooden poles ranging from 20 to 83 feet tall. It runs north past the St. Mark's Golf Club, then travels west along West San Marcos Boulevard past San Marcos High School and commercial businesses and offices near the West San Marcos Boulevard/South Rancho Santa Fe Road intersection. West of the intersection, the segment is located approximately 400 feet south of West San Marcos Boulevard for approximately 0.75 mile, traversing interspersed residential and open space areas. The westernmost 2,000 feet of the segment is adjacent to West San Marcos Boulevard, with office/commercial development to the north and residential development to the south.

Three representative photographs (KOPs A, B, and C) were taken from various locations along the segment to document existing conditions. These representative KOPs will be used to analyze the potential visual impact of the Project.

Figure 3.1-3 (KOP A) provides views looking west from the intersection of West San Marcos Boulevard and Discovery Street. The visual character of is defined by the surrounding constructed environment, including commercial/office buildings, a multi-unit residential complex on the north side of the roadway and the San Marcos High School campus on the south side. The developed visual character of this area is softened by the presence of landscaping and street trees. From this location, the transmission poles and lines are a prominent feature. Located between the San Marcos High School sports field and West San Marcos Boulevard, the existing transmission infrastructure is the tallest feature in foreground of the view. However, the transmission poles and line reduces in prominence in the background of the view where, due to the distance, it begins to have a similar visual dominance as the field lighting to the south and the trees along West San Marcos Boulevard to the west. Given the developed nature of the surroundings, the visual sensitivity in the area of KOP A is low to moderate.

Figure 3.1-3
KOP A, West San Marcos Boulevard & Discovery Street – Looking West

Figure 3.1-4 (KOP B) is the view to the east from the intersection of West San Marcos Boulevard and Rancho Santa Fe Road. From this location, the transmission poles and line are the prominent feature in the foreground, taller than the surrounding two- to three-story commercial/office development and San Marcos High School main building in the middle ground. The poles also above the horizon defined by the hillside in the background. Within the view, the prominence of the transmission poles and lines lessens as the discernable height difference between the transmission infrastructure and the hillside begins to decrease with increased distance from the KOP. Given the developed nature of the surroundings, the visual sensitivity in the area of KOP B is low to moderate.

Figure 3.1-4
KOP B, West San Marcos Boulevard & South Rancho Santa Fe Road – Looking East

Figure 3.1-5 (KOP C) shows a view to the east, through a neighborhood greenbelt and SDG&E right-of-way (ROW), from Acadia Drive immediately south of West San Marcos Boulevard. The relative prominence of the transmission poles and line is low due to the topography of the view (i.e., looking uphill) and presence of vegetation of similar height. A single-family neighborhood is immediately to the right out of view. West San Marcos Boulevard, and another single-family neighborhood to the north of it, is out of view to the left beyond the nature trees. The existing line would also be visible to those who use the SDG&E ROW access road for recreation. With the view limited by topography and dominance of the existing power line, the visual sensitivity in the area of KOP C is low to moderate.

Figure 3.1-5
KOP C, West San Marcos Boulevard & Acadia Street – Looking East

Segment 2

Segment 2 is approximately 2.8 miles long and includes an existing single-circuit, 138 kV transmission line on steel poles approximately 68 to 109 feet tall. It runs southeast through single-family residential areas and hilly, undeveloped open space areas that contain trails. A number of other transmission and distribution lines on metal and wooden poles are also present at Meadowlark Junction.

Three representative photographs (including KOPs D and E) document existing conditions.

Figure 3.1-6 (VP 2) provides a representative long distance view of the existing power line as it traverses neighborhoods and undeveloped areas in San Marcos and unincorporated San Diego County. This view looks southeast from the intersection point of Segments 1 and 2 along Palomar Airport Road in the City of Carlsbad. White Sands Drive is the paved roadway in the middle view. The dirt SDG&E access road runs under the existing power line, also in the middle view.

Figure 3.1-7 (KOP D) is a view looking southeast from White Sands Drive uphill toward a water storage tank at the crest of the hill in western San Marcos. From this location, the existing transmission poles and line and water tank are the prominent features. The poles are noticeably taller than surrounding one to two-story houses, the water tank, and surrounding low-lying vegetation. The transmission poles and line are also visible on the horizon as the power line crests the hill, increasing their prominence. Single-family residences are just out of view to either side of the simulation. Out of view, Simmons Family Park is located to the left (northeast) of the water tank just over the crest of the hill. Although there is existing abundant landscaping and the undeveloped portion of the hill are quite noticeable in the view, the existing utility structures, including street lighting, dominate the view, making the visual sensitivity moderate.

Figure 3.1-6
VP 2, View from Palomar Airport Road – Looking Southeast

Figure 3.1-7
KOP D, White Sands Drive & Sea Island Place – Looking Southeast

Figure 3.1-8 (KOP E) is a view from Brookside Court in southwest San Marcos looking northwest beyond two-story homes. This foreground view is dominated by the existing residential development, with the surrounding undeveloped terrain just visible over the roofs. The existing transmission poles and line are located in SDG&E ROW immediately west of the development and visually protrude into the horizon over the composite roofline. Above this roofline, they are unobscured by other built or natural features. The existing power line, street lighting, and dense residential development makes the visual sensitivity at KOP E moderate.

Figure 3.1-8
KOP E, Brookside Court –
Looking Northwest

Segment 3

Segment 3 is approximately 7.4 miles long and includes a de-energized transmission line on lattice towers approximately 145 to 170 feet tall. Segment 3 traverses residential areas, undeveloped/open space, rolling hills, and industrial and commercial areas. For the most part, Project improvements would be limited to reconductoring and re-energizing the line, which would utilize the existing structures and not change the existing appearance of these structures. **Figure 3.1-9** (VP 3) documents the visual appearance of Segment 3 along the Project's southern extent in San Marcos and east into unincorporated San Diego County. The existing visual sensitivity along Segment 3 is low.

Figure 3.1-9
VP 3, View of Segment 3 from Cooper Creek Apartments South Parking Lot – Looking South

Escondido Substation

The Escondido Substation is located on a 6-acre industrial site within an urbanized area of Escondido, and is surrounded by warehouses, parking lots, and 11 power lines that currently access the substation (see **Figure 3.1-10** [VP 4] and Table 3.1-1).

Figure 3.1-10
VP 4, View of Escondido Substation from Citracado Parkway – Looking North

3.1.2 Regulatory Setting

Federal

No federal regulations are applicable to the Project regarding visual resources.

State

California Department of Transportation: Scenic Highway Program

The California legislature created the Scenic Highway Program in 1963 to protect scenic highway corridors from changes that would diminish the aesthetic value of lands adjacent to the highways. State requirements in the Streets and Highways Code, Section 260, et seq., govern the Scenic Highway Program. A highway may be designated as "scenic" depending on how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the travelers' enjoyment of the view. The Scenic Highway System includes highways that are either eligible for designation 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 Caltrans for scenic highway approval, and receives the designation from Caltrans. A city or county may propose adding routes with outstanding scenic elements to the list of eligible highways; however, State legislation is required for designation.

The nearest State Scenic Highway of any status is I-5 (an eligible State Scenic Highway) which is approximately 5 miles to the west of Segment 2 of the Project (Caltrans, 2018).

Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order (GO) 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." The discussion below presents local policies and regulations for informational purposes only; CPUC does not consider these regulations "applicable" as that term is used in CEQA.

County of San Diego

San Diego County General Plan

Chapter 3, the Land Use Element, of the San Diego County General Plan, contains provisions regarding siting utilities within preserve areas that would be relevant to the portion of the Project within SDG&E ROW in the Sage Hills Preserve.

> ***Policy LU-12.4*:** Plan and site infrastructure for public utilities and public facilities in a manner compatible with community character, minimize visual and environmental impacts, and whenever feasible, locate any facilities and supporting infrastructure outside preserve areas.

Chapter 5, the Conservation Element, contains a general discussion of visual resources. Specifically, it contains a dark-skies policy, policies related to undergrounding utilities, and policies related to scenic county routes. The following goals and policies from the Conservation and Open Space Element of the San Diego General Plan pertain to the preservation of scenic resources (County of San Diego, 2011):

Goal COS-11: Preservation of scenic resources, including vistas of important natural and unique features, where visual impacts of development are minimized.

***Policy COS-11.1*:** Require the protection of scenic highways, corridors, regionally significant scenic vistas, and natural features, including prominent ridgelines, dominant landforms, reservoirs, and scenic landscapes.

***Policy COS-11.5*:** Coordinate with the California Public Utilities Commission, power companies, and other public agencies to avoid siting energy generation, transmission facilities, and other public improvements in locations that affect visually sensitive areas, whenever feasible. Require the design of public improvements within visually sensitive areas to blend into the landscape.

***Policy COS-11.7*:** Require new development to place utilities underground and encourage "undergrounding" in existing development to maintain viewsheds, reduce hazards associated with hanging lines and utility poles, and keep pace with current and future technologies.

Goal COS-12: Ridgelines and steep hillsides that are preserved for their character and scenic value.

***Policy COS-12.1*:** Protect undeveloped ridgelines and steep hillsides by maintaining semi-rural or rural designations on these areas.

***Policy COS-12.2*:** Require development to preserve physical features by being located down and away from ridgelines so that structures are not silhouetted against the sky.

San Diego County Zoning Ordinance

The San Diego County Zoning Ordinance contains regulations that apply to designated scenic areas, including scenic highway corridors and areas adjacent to significant recreational, historic, or scenic resources, such as the Sage Hills Preserve. These regulations include provisions for undergrounding utilities, grading, signage, and lighting.

5202 Application of the Scenic Area Regulations

The Scenic Area Regulations shall be applied to areas of unique scenic value, including, but not limited to, scenic highway corridors designated by the *San Diego County General Plan*, and areas adjacent to significant recreational, historic, or scenic resources, including, but not limited to, federal and state parks.

5210 Site Plan Review Criteria

a. ***Aboveground Utilities*.** Utilities shall be constructed and routed underground, except in those situations where natural features prevent undergrounding or where safety considerations necessitate aboveground construction and routing. Aboveground utilities shall be constructed and routed to minimize detrimental effects on the visual setting of the designated area. Where it is practical, aboveground utilities shall be screened from view from either the scenic

highway or the adjacent scenic, historic, or recreational resource by existing topography, by the placement of buildings and structures, or by landscaping and plantings that harmonize with the natural landscape of the designated area.

b. ***Grading*.** The alteration of the natural topography of the site shall be minimized and shall avoid detrimental effects on the visual setting of the designated area and the existing natural drainage system. Alterations of the natural topography shall be screened from view from either the scenic highway or the adjacent scenic, historic, or recreational resource by landscaping and plantings that harmonize with the natural landscape of the designated area, except when such alterations add variety to or otherwise enhance the visual setting of the designated area.

c. ***Signs*.** Off-site signs shall be prohibited in areas that are subject to the Scenic Area Regulations. The number, size, location, and design of all other signs shall not detract from the visual setting of the designated area or obstruct significant views. Subsequent to site plan review and approval, any alteration to signs, other than general maintenance, shall be subject to an Administrative Permit.

d. ***Lighting*.** The interior and exterior lighting of buildings and structures and the lighting of signs, roads, and parking areas shall be compatible with the lighting employed in the designated area.

City of Carlsbad General Plan

The City of Carlsbad General Plan designates open space to preserve aesthetic, cultural, and educational resources. Landforms that are protected under the General Plan include, but are not limited to, trails, preserves, hillsides, and habitats. There are no specific goals, policies, or ordinances that would be relevant to aesthetic concerns associated with utility projects (City of Carlsbad, 2015).

City of Escondido General Plan

The City of Escondido General Plan suggests that significant visual resources, such as ridgelines, hillsides, and viewsheds, should be preserved if they "serve as a scenic amenity and contribute to the quality of life for residents." I-15 is designated as a scenic corridor in the Plan. However, there are no specific goals, policies, or ordinances that would be relevant to aesthetic concerns associated with utility projects (City of Escondido, 2017).

City of San Marcos General Plan

Valued scenic landforms that are noted in the City of San Marcos General Plan include, but are not limited to, undeveloped hillsides, prominent landforms, creek corridors, and historic buildings. There are no specific goals, policies, or ordinances that would be relevant to aesthetic concerns associated with utility projects. However, State Route 78 is designated by the City of San Marcos as a view corridor and eligible as a State Scenic Highway (City of San Marcos, 2013).

City of Vista General Plan 2030

The City of Vista General Plan 2030 was prepared to guide the physical development of the incorporated city and any land outside of the city's boundaries that bear a relationship to its planning activities. The General Plan states that parks, designated open space, and places, buildings, and objects that embody the city's history should be preserved. However, there are no specific goals, policies, or ordinances that would be relevant to aesthetic concerns associated with utility projects (City of Vista, 2012).

3.1.3 Applicant Proposed Measures

No Applicant Proposed Measures (APMs) have been identified by SDG&E to address impacts to aesthetics.

3.1.4 Environmental Impacts

Methodology

The Project is not located an urbanized area, as defined in CEQA Guidelines Section 15387, and as mapped by the U.S. Census[1]. Therefore, this analysis is based on the Project being in a non-urbanized area. The visual impact assessment is based on evaluation of the changes to the existing visual environment that would result from construction and operation of the Project, and viewer response to that change. The analysis is based on review of information provided by SDG&E as independently verified on behalf of the CPUC, including project maps, drawings, aerial and ground-level photography of the study area, local planning documents, and computer-generated visual simulations. Field observations were conducted on April 11, 2018 to document existing visual conditions and to document potentially affected sensitive viewing locations. The methodology utilized in this analysis is adapted from an approach to visual impact assessment developed by the Federal Highway Administration (DOT, 2015).

An adverse aesthetic impact may occur when: (1) an action (i.e., a "project") perceptibly changes the existing physical features of the landscape that are characteristic of the region or locale; (2) an action introduces new features to the physical landscape that are perceptibly uncharacteristic of the region or locale, or become visually dominant in the viewshed; or (3) an action blocks or totally obscures aesthetic features of the landscape. The degree of visual impact depends on the noticeability of the adverse change. The noticeability of a visual impact is a function of a project's features, context, and viewing conditions (angle of view, distance, and primary viewing directions). The key factors in determining the degree of visual change are visual contrast, project dominance, and visual screening. The interaction of visual change with the components of visual sensitivity (visual quality, viewer types and volumes, and viewer exposure; see Section 3.1.1, *Environmental Setting*) is discussed below under "Overall Adverse Visual Impact."

Visual Contrast

Visual contrast is a measure of the degree of change in line, form, color, and texture that a project would create, when compared to the existing landscape. Visual contrast ranges from "none" to "strong", and may be characterized as:

- **None** –The element contrast is not visible or perceived;
- **Weak** –The element contrast can be seen, but does not attract attention;
- **Moderate** –The element contrast begins to attract attention and begins to dominate the characteristic landscape; and

[1] 2010 Census Urbanized Area Reference Maps: https://www.census.gov/geo/maps-data/maps/2010ua.html

- **Strong** – The element contrast demands the viewer's attention and cannot be overlooked.

Project Visual Dominance

Project visual dominance is a measure of the apparent size of a project component relative to other visible landscape features in the viewshed, or seen area. The visual dominance of a component is affected by its relative location in the viewshed and the distance between the viewer and the project component.

Visual Screening

View screening (blockage or impairment) is a measure of the degree to which a project would obstruct or block views to aesthetic features due to its position and/or scale. Blockage of aesthetic landscape features or views can cause adverse visual impacts, particularly in instances where scenic or view orientations are important to the use, value, or function of the land use.

Overall Adverse Visual Impact

Overall adverse visual impact reflects the composite visual changes to both the directly affected landscape and from sensitive viewing locations. The visual impact levels referenced in this analysis indicate the relative degree of overall change to the visual environment that the Project would create, considering visual sensitivity, visual contrast, view blockage, and the Project's visual dominance. In general, the determination of impact significance is based on combined factors of visual sensitivity and the degree of visual change that the Project would cause.

Table 3.1-2, *Guidelines for Determining Adverse Visual Impact Significance*, shows how the inter-relationship of these two overall factors determines the level of significance of visual impacts and presents the impact classifications used in this analysis.

TABLE 3.1-2
GUIDELINES FOR DETERMINING ADVERSE AESTHETIC IMPACT SIGNIFICANCE

Overall Visual Sensitivity	Overall Visual Change				
	Low	**Low to Moderate**	**Moderate**	**Moderate to High**	**High**
Low	No Impact	No Impact	Less than significant	Less than significant	Less than significant
Low to Moderate	No Impact	Less than significant	Less than significant	Less than significant	Less than significant
Moderate	Less than significant	Less than significant	Less than significant	Potentially Significant	Potentially Significant
Moderate to High	Less than significant	Less than significant	Potentially Significant	Potentially Significant	Significant
High	Less than significant	Less than significant	Potentially Significant	Significant	Significant

DEFINITIONS:

No Impact. Effects may or may not be perceptible, but are considered minor in the context of existing landscape characteristics and view opportunity.
Less than Significant. Impacts are perceived as negative, but do not exceed environmental thresholds.
Potentially Significant. Impacts are perceived as negative and may exceed environmental thresholds depending on project- and site-specific circumstances (e.g., orientation of the viewer).
Significant Impacts. Impacts with feasible mitigation may be reduced to less-than-significant levels or avoided altogether. Without mitigation or avoidance measures, significant impacts would exceed environmental thresholds.

SOURCE: ESA, modified from Federal Highway Administration (DOT, 2015).

To document the visual change that would occur, visual simulations are included. They present before and after images showing the Project from the key observation points, or KOPs, identified in Section 3.1.1. The simulated images present the location, scale, and appearance of the Project as it would be seen from publicly accessible KOPs within the study area. The KOP locations were selected to represent views seen by the largest number of public viewers; for this Project, such locations are located within public portions of residential areas and along public roadways. As shown in Figures 3.1-11 through 3.1-15, the visual simulations are illustrated as an existing view with a simulation below that portrays the Project from the corresponding KOP.

Discussion

a) Whether the Project would have a substantial adverse effect on a scenic vista: *LESS THAN SIGNIFICANT IMPACT.*

There are no officially designated vistas in the study area. The Project could be visible in long distance views from some locations in the Rancho La Costa Preserve, Diamond Trail Preserve, Sage Hill Preserve, and Escondido Creek Preserve. **Table 3.1-3**, *Scenic Vistas*, identifies the preserves, associated views, and whether the Project would affect those views.

TABLE 3.1-3
SCENIC VISTAS

Preserve	Associated Segment	Scenic Views	View Obstruction?
Rancho La Costa Preserve	Segment 2	Batiquitos Lagoon, Box Canyon and the Pacific Ocean	No, Project is located to the east behind the viewer
Diamond Trail Preserve	Segment 2	Pacific Ocean	No, Project is located to the east behind the viewer
Sage Hill Preserve	Segment 3	No designated scenic vistas	No, minimal change due to continued presence of power line.
Escondido Creek Preserve	Segment 3	No designated scenic vistas	No, minimal change due to continued presence of power line.

SOURCE: Parks and Recreation County of San Diego, 2010; City of Carlsbad, 2018; The Escondido Creek Conservancy, 2018.

As noted in Chapter 2.0, *Project Description*, the Project does not propose to construct and operate electrical infrastructure along any segment where some form of infrastructure does not currently exist. In Segment 1, existing poles would be replaced and an additional electrical circuit would be added to the circuit on the existing poles. While the Project would involve the construction of a new power line, it would be co-located with an existing larger power in SDG&E ROW. The Project would be designed such that the new power poles supporting the Project would be spaced at the same interval as the existing poles, thereby limiting visual contrast. The re-energization of Segment 3 would utilize existing poles and towers, which would not change the physical appearance of these facilities.

Although scenic vistas exist in the vicinity of the Project alignment, as noted above, the Project would not be within the foreground of any designated scenic vistas. Also, the Project components would not create a significant visual contrast or detract from the existing visual character along

the Project alignment would not change Therefore, impacts to scenic vistas resulting from construction, operation, or maintenance of the Project would be less than significant.

b) Whether the Project would substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway: *NO IMPACT.*

The Project would not substantially damage scenic resources within a State Scenic Highway. State Route 78 is designated by the City of San Marcos as a view corridor and eligible as a State Scenic Highway; however, it is located approximately 1.1 miles northeast of the San Marcos substation (City of San Marcos, 2013) and out of view. I-15 is designated as a scenic corridor in the Escondido General Plan, and is located approximately 1 mile to the east of the Project (City of Escondido, 2012) and out of view. Project-related changes would not be noticeable from either a State Scenic Highway or a city-designated scenic corridor; therefore, no impacts would occur.

c) Whether the Project would substantially degrade the existing visual character or quality of public views of the site and its surroundings, or since the project is in an urbanized area, whether it would conflict with applicable zoning and other regulations governing scenic quality: *LESS THAN SIGNIFICANT IMPACT.*

Construction

Construction-related visual impacts would result from the temporary presence of equipment, materials, and work crews at the San Marcos and Escondido substations, along the alignment, along access roads, and at staging yards and temporary staging areas. SDG&E has identified candidate staging yards with the size and location to accommodate the scope of the Project (see **Table 2-10**, Potential Staging Yards and **Figure 2-10** in Chapter 2, *Project Description*). Construction impacts on visual quality would be limited to the one-year construction period. Impacts along the alignment would be limited as construction work would be conducted in a sequential fashion, with work occurring in multiple locations along the Project alignment to minimize the total construction schedule, which would limit the presence of construction equipment, materials, etc. Staging areas would also be temporarily visually impacted by the presence of large equipment and materials (e.g., equipment wash stations, pole assemblage, materials and equipment storage, storage containers, construction trailers, portable restrooms, etc.); however, all staging areas and other work sites would be restored to their pre-Project condition following construction, as required in the Project Stormwater Pollution and Prevention Plan and SDG&E's BMP Manual (explained in detail in Section 3.10, *Hydrology and Water Quality*). Project construction would not substantially degrade the existing visual character of the substation sites or alignment, and overall visual sensitivity is expected to be low to moderate due to the short duration of construction activities (i.e., less than one year). Impacts would be less than significant.

There are no local zoning or other regulations related to scenic quality that would pertain to construction.

Operation

San Marcos Substation

At San Marcos Substation, a new 7- by 7-foot circuit breaker pad, SF_6 circuit breakers, seven piers (2 feet in diameter and 6 feet tall), and a 30-foot-tall A-frame would be installed to accommodate the Project. The San Marcos Substation is located in the western portion of the City of San Marcos. The City's General Plan conceptually defines significant visual resources; however, it does not provide specific goals, policies, or ordinances that provide criteria by which to assess impacts. Although there would be additional equipment at the substation, the overall visual change would be low, with most changes being screened by the existing fence and landscaping. The 30-foot A-frame would likely be visible from Discovery Street and neighboring residences, but would not change the visual character of the area. Viewer sensitivity in this area is moderate to high, with affected viewers including users of the Lake San Marcos Country Club and residents surrounding the substation; however, the Project would not substantially degrade the existing visual character of the area, and the overall impact would be less than significant due to the low degree of visual change proposed by the Project (see Table 3.1-2).

Segment 1

For Segment 1, along 1.8 miles of the alignment, wooden poles approximately 20 to 84 feet tall would be replaced with steel poles approximately 43 to 101.5 feet tall.

To determine the level of impact of the Project to existing visual character or quality of the area along the Project alignment, visual simulations were developed at three KOPs based on known Project characteristics. In Figures 3.1-11, 3.1-12, and 3.1-13, these simulations have been paired with the existing view at the respective KOP.

The new steel poles would be in approximately the same location as the existing wooden poles, though offset from 6 to 8 feet. The taller poles (approximately twice as tall as the existing poles) would be visually more apparent, with the poles being more visible in the distance because they would be taller than the surrounding trees. A comparison of the existing view and simulation demonstrates that the taller poles would be more perceptible than the existing poles at a distance due to their increased presence on the horizon. While the new poles would also be larger in diameter than the existing wooden poles, they would be similar in form and diameter would not appear to be significantly larger. The dull, non-reflective finish of the new structures would lessen their visibility when seen against the sky under typical viewing conditions, compared with the darker appearance of the existing poles. In addition, the lines would be higher than the existing lines and outside of some viewers' line of sight at ground level.

Viewer sensitivity in this area is low to moderate, given its developed visual nature. Affected viewers would include motorists, retail workers, shoppers, and recreationalists at San Marcos High School. The motorists, retail workers, and shoppers are transient viewers and would be less sensitive to visual changes. However, the recreationalists at San Marcos High School, and people watching games in the stands, would view the change for longer periods of time. Nonetheless, while they would be perceptible, the new poles and repositioned circuitry would not introduce a new visual element to the surroundings at KOP A. Per Table 3.1-2, the overall impact would be

less than significant due to the low to moderate viewer sensitivity and moderate degree of visual change of the Project.

Figure 3.1-11, *KOP A Existing and Proposed Conditions at West San Marcos Boulevard & Discovery Street – Looking West,* is a representative view at KOP A of the Project in the City of San Marcos. At KOP A, the taller poles would be more visually apparent due to their increased presence on the horizon. From this view, the new position of the circuitry would be lower on the horizon and would traverse views of the hillside in the background. In addition, the dull, non-reflective finish of the new structures would create more contrast against the tan backdrop of the surrounding hillside than under existing conditions.

Figure 3.1-12, *KOP B Existing and Proposed Conditions at West San Marcos Boulevard & South Rancho Santa Fe Road – Looking East,* also shows the new steel poles in approximately the same location as the existing wooden poles, though offset from 6- to 8 feet. KOP B is in the city of San Marcos. While the Project components would be perceptible, they would not introduce a new visual element to the surroundings at KOP B. This would result in a low to moderate visual change.

Viewer sensitivity in this area is low to moderate, being dominated by commercial development and the San Marcos High School main building in the middleground, but with the hills in the background. Affected viewers include motorists, retail workers, and shoppers who would be transient viewers and less sensitive to change. Therefore, the overall impact would be less than significant, per Table 3.1-2.

Figure 3.1-13, *KOP C Existing and Proposed Conditions at West San Marcos Boulevard & Acadia Street – Looking East,* shows a low-to-moderate visual change due to increased height and diameter of the poles. KOP C is in the City of San Marcos. A comparison of the existing view and simulated view demonstrates that the taller poles would be slightly more perceptible than the existing poles at a distance due to their increased presence on the horizon. However, given the angle of the view (i.e., looking uphill), the existing line is a dominant feature, just as the new line would be. Although the dull, non-reflective finish of the new structures would lessen their visibility when seen against the sky under typical viewing conditions, compared with the darker appearance of the existing poles, at ground-level the new finish of the poles would create more contrast against the darker vegetated backdrop. While the Project components would be perceptible, they would not introduce a new visual element to the surroundings at KOP C. This would result in a low to moderate visual change.

Viewer sensitivity in this area is low to moderate, with views from publicly-accessible areas, including neighborhood streets, being limited. Potential viewers outside of public neighborhood areas would be those who use the SDG&E ROW access road under the power line for recreation. However, as noted above, with the uphill angle of view limiting sight distance, the visually perceptible change would be in the Project materials, rather than the presence or height of the Project. Per Table 3.1-2, the overall impact would be less than significant.

Existing

Proposed

SOURCE: SDGE, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.1-11
KOP A Existing and Proposed Conditions at West San Marcos Boulevard & Discovery Street – Looking West

D120812.05 - CPUC SDGE TL6975\05 Graphics-GIS-Modeling\Illustrator

Existing

Proposed

D120812.05 - CPUC SDGE TL6975\05 Graphics-GIS-Modeling\Illustrator

SOURCE: SDGE, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.1-12
KOP B Existing and Proposed Conditions at West San Marcos Boulevard & South Rancho Santa Fe Road – Looking East

Existing

Proposed

D120812.05 - CPUC SDGE TL6975\05 Graphics-GIS-Modeling\Illustrator

SOURCE: SDGE, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.1-13
KOP C Existing and Proposed Conditions at West San Marcos Boulevard & Acadia Street – Looking East

Most of Segment 1 is within the City of San Marcos, and a small portion would be within unincorporated San Diego County. The City of San Marcos's General Plan conceptually defines valued scenic landforms; however, it does not provide specific goals, policies, or ordinances that provide criteria by which to assess impact. Segment 1 would be aboveground, but the portion located within unincorporated San Diego County would not conflict with the provisions of the San Diego General Plan requiring new development to place utilities underground because this segment would not be new development, but would replace an existing transmission line. This segment is not located within a designated scenic area; therefore, San Diego County Zoning Code Scenic Area Regulations are not applicable. There would be no impact with respect to conflict with applicable regulations.

Segment 2

For Segment 2, 2.8 miles of new transmission line would be placed on steel monopoles adjacent to the existing line, ranging from 61 to 110 feet in height, set approximately 30 feet east of and parallel to the existing power line in the existing SDG&E ROW. Consistent with the analysis of Segment 1, to determine the level of impact of the Project to existing visual character or quality of the area along the Project alignment, visual simulations were developed at two KOPs based on known Project characteristics. In Figures 3.1-14 and 3.1-15, these simulations have been paired with the existing view at the respective KOP.

Figure 3.1-14, *KOP D Existing and Proposed Conditions at White Sands Drive & Sea Island Place – Looking Southeast,* shows a low to moderate visual change due to introduction of the Project transmission line. The existing visual character of this segment is already defined by the existing transmission line, street lighting, and water storage tank in the distance. While the addition of the Project would result in increased constructed visual elements, it would not result in strong contrast against the surrounding environment due to the presence of the existing utility facilities. Therefore, a low to moderate visual change would occur. Viewer sensitivity in this area is moderate, with affected viewers including residents and users of Simmons Family Park. Therefore, per Table 3.1-2, the overall impact would be less than significant.

Figure 3.1-15, *KOP E Existing and Proposed Conditions at Brookside Court – Looking Northwest,* shows a moderate change due to introduction of the Project transmission line. Although the visual character of this segment is already influenced by the existing transmission line, the dense development of single-family residences also contributes to the visual quality of this KOP. The residences form a composite roofline in the foreground, which is prominent in the view. The addition of the Project power line would result in an additional linear utility feature on the horizon. Due to its placement on the ridge, these power transmission facilities would become a more dominant feature within the visual setting. In addition, the Project would reduce utility coherence and increase contrast, as the new line appears both shorter and taller than the existing line, depending on the topography. As a result, there would be a moderate visual change. Viewer sensitivity in this area is moderate; therefore, per Table 3.1-2, the overall impact would be less than significant.

Existing

Proposed

D120812.05 - CPUC SDGE TL6975\05 Graphics-GIS-Modeling\Illustrator

SOURCE: SDGE, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.1-14
KOP D Existing and Proposed Conditions at White Sands Dr. & Sea Island Pl. – Looking Southeast

Existing

Proposed

D120812.05 - CPUC SDGE TL6975\05 Graphics-GIS-Modeling\Illustrator

SOURCE: SDGE, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.1-15
KOP E Existing and Proposed Conditions at Brookside Court – Looking Northwest

Segment 2 would be located within the City of San Marcos and unincorporated San Diego County. The City of San Marcos' General Plan conceptually defines valued scenic landforms; however, it does not provide specific goals, policies, or ordinances that provide criteria by which to assess impact. The Project would be located aboveground, and would not be consistent with the San Diego County Zoning Code. The Project would be constructed and routed to minimize detrimental effects on the visual setting of the designated area because it would be placed within an existing transmission line corridor. This segment is not located within a designated scenic area; therefore, San Diego County Zoning Code Scenic Area Regulations are not applicable. The impact related to conflict with applicable regulations would be the same as the physical aesthetic impact described above, less than significant.

Segment 3

In Segment 3, the Project would be installed primarily on existing steel lattice towers and poles. The height and configuration of the lattice towers and poles would be unchanged. Due to the lack of visual change associated with this segment of the Project, overall change in visual character and overall visual sensitivity to the change would be low and no impact on the existing visual character or quality of public views would occur.

Segment 3 traverses the southern portion of the City of San Marcos, portions of undeveloped San Diego County, and the western portion of the City of Escondido. San Marcos' and Escondido's General Plans conceptually define valued scenic landforms and significant visual resources, respectively. However, neither plan provides specific goals, policies, or ordinances that provide criteria by which to assess impact. Segment 3 would be aboveground, but the portion located within unincorporated San Diego County would not conflict with the provisions of the San Diego General Plan requiring new development to place utilities underground because this segment would not be new development, but would reconductor or re-energize an existing transmission line. Most of this segment is not located within a designated scenic area; however, a portion would traverse the northern part of the Sage Hill Preserve. Therefore, San Diego County Zoning Code Scenic Area Regulations are applicable. Segment 3 would be constructed and routed to minimize detrimental effects on the visual setting of the preserve because it would be placed within an existing transmission line corridor on existing towers and poles. No grading would occur within the Preserve, and no new signs or lighting would be introduced. There would be no impact with respect to conflict with applicable regulations.

Escondido Substation

At the Escondido Substation, the existing overhead conductor, three existing 69 kV circuits, and existing overhead power lines would be relocated; a new circuit breaker pad and circuit breaker would be installed; and the old circuit breaker pad and an oil containment wall would be removed. To accommodate these changes, five existing poles located just south of the substation would be replaced with two pier foundation poles. The changes would not substantially change the visual character of the existing substation, and due to the industrial nature of the surrounding area, overall visual sensitivity to the proposed changes would be low. Therefore, no visual impact would occur.

This substation is located in the western portion of the City of Escondido. The city's General Plan conceptually defines significant visual resources; however, it does not provide specific goals, policies, or ordinances that provide criteria by which to assess impact. There would be no impact relative to applicable regulations.

Maintenance

Maintenance of the Project would occur as needed, would be limited in duration, and would 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. Regular operation and maintenance activities of the overhead facilities would be performed from existing access roads, within SDG&E ROW, or within the existing footprint of the substations. Maintenance would be similar to SDG&E activities that currently occur along the alignment. As maintenance would be limited in duration and similar to current maintenance activities, there would not be any degradation to the visual character of the study area and overall visual sensitivity would be low. Therefore, the impact during Project maintenance would be less than significant.

d) Whether the Project would create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area: *LESS THAN SIGNIFICANT IMPACT.*

Construction and Maintenance

Nighttime construction may be required as a result of a condition of an agency permit (e.g., Caltrans encroachment permit) or local traffic control direction from one of the study area jurisdictions. As a result, construction lighting could adversely impact nighttime views in the vicinity of the construction sites. Additionally, some nighttime lighting may be required during emergency situations when SDG&E would need to inspect, maintain, and repair Tie Line 6975 to maintain service continuity. The Project includes 10 temporary construction staging yards that would include temporary security lighting, some of which would be located in developed areas while others would be located in more remote areas. SDG&E has identified candidate staging yards with the size and location to accommodate the scope of the Project (see **Table 2-10**, Potential Staging Yards and **Figure 2-10** in Chapter 2, *Project Description*). Where the staging areas are located in urban areas, there would be other sources of nighttime lighting (e.g., street lights, commercial signage, etc.). Where the staging areas are located in less developed areas, the lighting created by the staging areas would be more noticeable, creating more contrast against the darker surroundings. Due to distance and topography, it is unlikely that the staging areas in more remote areas would adversely affect nighttime views. However, the staging areas south of Escondido would have the highest likelihood for impacts because of lack of topography and how close it is to the new residential development to the west (approximately 500 feet). Project lighting would be directed on-site and shielded downward away from any off-site sensitive receptors and would be removed once the subject work was completed. Overall, visual impacts associated with light and glare would only occur on a temporary basis through the phased sequence of the construction schedule. Therefore, impacts related to Project lighting during construction and maintenance would be less than significant.

Operation

No new sources of substantial light or glare would be created that would adversely affect daytime or nighttime views in the area during operation of the Project. Any construction of alteration of a structure that may affect the National Airspace System is required to notify and comply with obstruction requirements set forth by the Federal Aviation Administration (FAA, 2007). Any structure (i.e., pole, tower) exceeding 200 feet above ground surface would be required to be equipped with obstruction lighting, which typically would be a flashing red beacon at the top of the structure. However, none of the proposed structures for this Project are over 200 feet above ground surface. No new lighting would be required at either of the substations, and neither the existing nor the proposed transmission line facilities require permanent lighting. New pole structures would use dulled galvanized steel or weathered steel designed to minimize the potential for glare. Potential glare from overhead conductors would be minimized through the use of non-specular conductors. Therefore, impacts regarding new substantial sources of light or glare during Project operation would be less than significant.

3.1.5 References

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U.S. Census Bureau, 2010. 2010 Census Urbanized Area Reference Maps: https://www.census.gov/geo/maps-data/maps/2010ua.html. Accessed March 18, 2019.

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3.2 Agriculture and Forestry Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
2. AGRICULTURE AND FORESTRY RESOURCES — In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. **Would the project:**				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) 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))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) 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?	☐	☐	☐	☒

This section identifies and evaluates issues related to agriculture and forestry resources in the context of the Project. It includes a description of agricultural designations and zoning, Williamson Act contracts, forest and timberland zoning, and related uses. This section further provides a discussion of applicable state, regional, and local plans and programs, and an evaluation of potential impacts associated with implementation of the Project. For the purpose of this analysis of agriculture and forestry resources, the study area is defined as the footprint of all components of the Project, including all areas of temporary and/or permanent ground disturbance included in the SDG&E right-of-way (ROW) and the existing access roads.

3.2.1 Environmental Setting

According to the California Department of Conservation (DOC), the Project includes or is adjacent to several parcels of land designated as Unique Farmland. There are no lands within the defined study area that are designated as Prime Farmland or Farmland of Statewide Importance. All proposed staging yards are designated as Urban Built Up Land and/or Other Land and are not classified as Important Farmland (DOC, 2016a).

The Project ROW includes Unique Farmland in the following areas as identified on the DOC's California Important Farmland Finder (DOC, 2016a) and shown in **Figure 3.2-1**, *Farmland Mapping and Monitoring Program: Important Farmland*:

- An 85-foot section of Segment 1 along West San Marcos Boulevard and directly west of Viewpoint Drive in San Marcos;
- A 780-foot section of Segment 3 west of Bresa De Loma Drive in Escondido; and
- A 120-foot section of Segment 3 southwest of Mount Whitney Road in unincorporated San Diego County.

The Project ROW does not include any land enrolled in a Williamson Act (California Land Conservation Act of 1965) contract (DOC, 2017).

Section 12220 (g) of the California Public Resources Code defines forest land 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 as defined by Public Resources Code Section 4526 is land that is available for and capable of growing trees of any commercial species used to produce lumber and other forest products. 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.[1] The study area does not include any forest land or any land with substantial tree cover and would not include any defined forest land, timberland, or timberland production zone.

3.2.2 Regulatory Setting

Federal

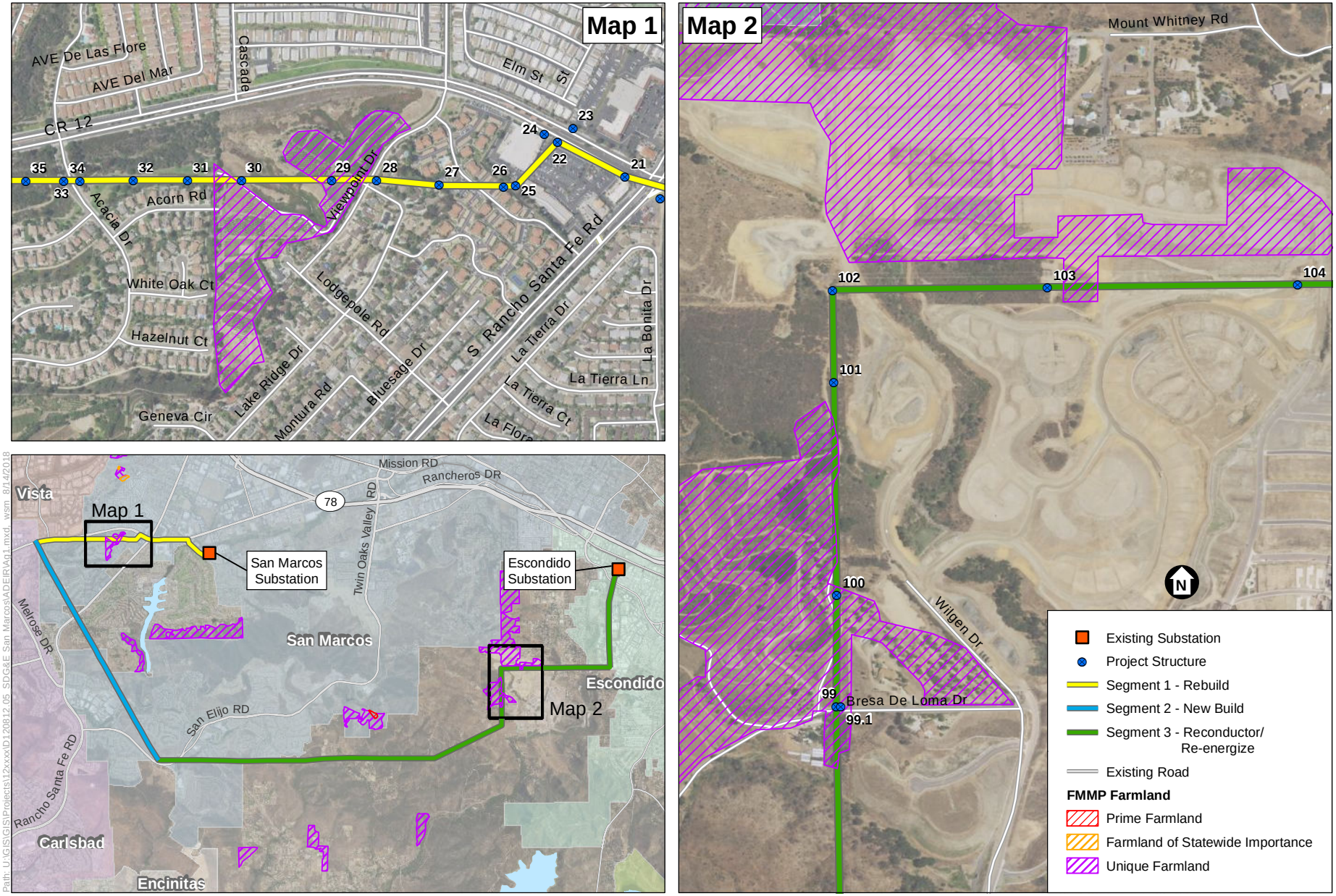
No federal plans or policies concerning agriculture and forestry resources apply to the Project.

State

California Farmland Mapping and Monitoring Program

The DOC maps important farmlands along California through the Farmland Mapping and Monitoring Program (FMMP). Unique Farmland is the only FMMP designation relevant to the Project. The Program classifies farmland based upon suitability of soil conditions for agriculture and their current land use. Unique Farmland is defined as lower quality soils and is used for the production of California's leading agricultural products. This type of farmland is typically irrigated, but may also include non-irrigated vineyards or orchards found in certain climatic zones. Unique Farmland must have been cropped within four years of the mapping date (DOC, 2016b).

[1] "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 §51104(h)).



3.2-3

SOURCE: SDGE, 2018; CDOC, 2016

TL 6975 San Marcos to Escondido Project

Figure 3.2-1

Farmland Mapping and Monitoring Program: Important Farmland

ESA

California Public Utilities Commission General Order No. 131-D

The CPUC has sole and exclusive jurisdiction over the siting and design of the Project because it authorizes the construction, operation, and maintenance of investor-owned public utility facilities. Although, such projects are exempt from local land use and zoning regulations and discretionary permitting (i.e., they would not require discretionary approval from a local decision-making body such as a planning commission, county board of supervisors or city council), General Order No. 131-D, Section XIV.B requires that in locating a project "the public utility shall consult with local agencies regarding land use matters." The public utility would be required to obtain any required non-discretionary local permit (CPUC, 1995).

Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order (GO) 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." The discussion below presents local policies and regulations for purposes of determining whether any adverse environmental impact that might result from a conflict with these policies, but is not intended to identify local land use authority.

Within the study area, no areas designated as agricultural land, timberland, or forest land were identified within the cities of Carlsbad, Vista, or San Diego.

County of San Diego General Plan

The County of San Diego General Plan (2011) Conservation and Open Space Element intends to minimize land use conflicts, preserve agricultural resources, and support the long-term presence and viability of the agricultural industry as an important component of the region's economy and open space linkage. The following policies address agricultural resources in the County (County of San Diego, 2011):

> **COS-6.2: Protection of Agricultural Operations.** Protect existing agricultural operations from encroachment of incompatible land uses by doing the following:
>
> - Limiting the ability of new development to take actions to limit existing agricultural uses by informing and educating new projects as to the potential impacts from agricultural operations
> - Encouraging new or expanded agricultural land uses to provide a buffer of non-intensive agriculture or other appropriate uses (e.g., landscape screening) between intensive uses and adjacent non-agricultural land uses
> - Allowing for agricultural uses in agricultural areas and designing development and lots in a manner that facilitates continued agricultural use within the development
> - Requiring development to minimize potential conflicts with adjacent agricultural operations through the incorporation of adequate buffers, setbacks, and project design measures to protect surrounding agriculture

- Supporting local and state right-to-farm regulations
- Retain or facilitate large and contiguous agricultural operations by consolidation of development during the subdivision process

City of Escondido General Plan

The Resource Conservation Element of the City of Escondido General Plan addresses goals and policies that pertain to agricultural resources (City of Escondido, 2012) as follows:

Goal-4: Preservation of agricultural resources and continuation of agricultural production in appropriate areas within Escondido.

***Policy-4.1*:** Maintain large-lot residential land uses with appropriate zoning designations in agricultural areas that are compatible with preserving agricultural productivity.

City of San Marcos General Plan

The goal and policies from the City of San Marcos General Plan pertaining to agricultural resources (City of San Marcos, 2012a) are presented below:

Goal COS-2: The City is committed to conserving, protecting, and maintain open space, agricultural, limited resources for future generations. By working with property owners, local organizations, and state and federal agencies, the City can limit the conservation of resource lands to urban uses.

***Policy COS-2-1*:** Provide and protect open space areas throughout the City for its recreational, agricultural, safety, and environmental value.

***Policy COS-2.2*:** Limit, to the extent feasible, the conversion of open space to urban uses and place a high priority on acquiring and preserving open space lands for recreation, habitat protection and enhancement, flood hazard management, water and agricultural resources protection, and overall community benefit

Zoning

GIS zoning maps and data for the cities of San Diego, San Marcos, Carlsbad, Escondido, and Vista and for San Diego County were used to identify agricultural and forestry zones within the study area.

In unincorporated San Diego County, the Project includes land zoned as Limited Agriculture (A70) and General Agriculture (A72) (County of San Diego, 2016). A portion of land zoned as A70 is located adjacent to Segment 2 near the overhead crossing of South Rancho Santa Fe Road. The eastern portion of Segment 3 includes four properties totaling approximately 1.5 miles of land zoned as A70. Directly south of and adjacent to Segment 3 is also a portion of land zoned as A72 (SanGIS, 2017).

The portion of Segment 2 that crosses South Rancho Santa Fe Road is located adjacent to two agricultural zones (A-1) in the City of San Marcos. The A-1 zone is classified as a low-intensity Agricultural Zone that is suitable for low-density residential hillside development (City of San Marcos, 2012b, and 2015).

There are no other properties zoned as agricultural zones within or adjacent to the study area in the cities of San Diego, Carlsbad, Vista, or Escondido.

There are also no portions or parcels of land within the Project that are zoned as forest land or timber production zones.

3.2.3 Applicant Proposed Measures

No Applicant Proposed Measures (APMs) have been identified to address potential impacts on agriculture or forestry resources.

3.2.4 Environmental Impacts

Discussion

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use: *NO IMPACT.*

Poles 29 and 30 are proposed within designated Unique Farmland along Segment 1 located directly west of Viewpoint Drive and south of West San Marcos Boulevard. The existing poles at these sites would be replaced with direct-bury steel poles and secured with a concrete backfill. Each direct-bury pole installation would require a temporary work area up to 40 feet in diameter and an additional adjacent work area measuring 25 by 60 feet. All structural removal work would be completed from the existing work pads located at each existing pole site. The replacement poles would be located 6 to 8 feet from the existing poles. Temporary disturbance and some minor vegetation clearance would occur during construction and installation of poles 29 and 30. However, in this location, the parcel designated as Unique Farmland is used as a tree nursery, and all trees appear to be grown in nursery tree boxes. Therefore, trees placed within the temporary work area and/or permanent footprint for pole replacements could feasibly be moved away from the work area without loss of crops. Following construction, temporary work areas would again become available for growing nursery trees.

Additionally, the existing ROW would be expanded in width by 10 feet along approximately 845 linear feet within this parcel of Unique Farmland. However, no vegetation clearance would be necessary for this expansion, and because of the existing use, the nursery trees could feasibly continue to be grown in the ROW. Neither the pole replacements nor the ROW expansion would permanently convert Unique Farmland to non-agricultural use.

Operation and maintenance activities along Segment 1 would remain consistent with maintenance of existing facilities, and therefore would not convert Unique Farmland to non-agricultural use. Therefore, no impact would occur.

Segment 3 includes Unique Farmland in two locations and would consist of re-energizing of the existing power line. Existing Poles 99 and 100 are within Unique Farmland located west of Bresa De Loma Drive in Escondido. Only overhead work would occur at these poles, with no new

ground disturbance. No poles are located within the area of Unique Farmland located west of Mount Whitney Road. Therefore, construction of Segment 3 would not result in any ground disturbance-related impacts within Unique Farmland. The current and existing de-energized line requires insulator washing four times a year; however, this activity would no longer occur once the power line is re-energized and new insulators are installed along Segment 3. As a result, operation and maintenance activities would decrease once the Project is operational. For further details on operation and maintenance of each Segment of the Project, refer to Section 2.0, *Project Description*. No conversion of Unique Farmland to non-agricultural use would occur. This segment of the Project would therefore result in no impact.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract: *NO IMPACT.*

Segment 3 would include land zoned for agricultural use (A70 zoning in unincorporated San Diego County). Project work within this segment would consist of overhead work and no ground disturbance. Therefore, no activities would occur and no new use would be introduced that would conflict with existing zoning, and there would be no impact.

As described in Section 3.2.1, the Project does not include any land that is subject to a Williamson Act contract; therefore, there would be no impact.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined in Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g): *NO IMPACT.*

There is no zoning for forest land or timberland found within the study area. Therefore, the Project would not conflict with existing zoning for or cause rezoning of forest land or timberland; therefore, there would be no impact.

d) Result in the loss of forest land or conversion of forest land to non-forest use: *NO IMPACT.*

As described in Section 3.2.1, none of the Project components would be located in an area zoned as forest land. There would be no impact.

e) 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: *NO IMPACT.*

As described above, under Questions c and d, there is no forest land within or adjacent to the Project elements. Therefore, the Project would have no direct or indirect impact on the conversion of forest land to non-forest use. For portions of the Project that would be constructed or installed within existing agricultural lands, per the analysis under Question a and b, the Project would not permanently convert any Farmland to non-agricultural use and would not result in any necessary vegetation removal. The Project would be compatible with existing agricultural zoning and land uses along the transmission alignment. Furthermore, the Project does not include any features that would indirectly result in the conversion of Farmland. The Project would not result in the

permanent conversion of agricultural land or forest land resulting from other changes in the environment. Therefore, there would be no impact.

3.2.5 References

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3.3 Air Quality

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
3.	**AIR QUALITY —** Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. **Would the project:**				
a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b)	Violate any air quality standard or result in a cumulatively considerable net increase in an existing or projected air quality violation?	☐	☐	☒	☐
c)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d)	Result in substantial emissions (such as odors or dust) adversely affecting a substantial number of people?	☐	☐	☒	☐

The regional study area for the analysis of impacts related to implementation of an air quality plan and violation of air quality standards is the San Diego Air Basin (Air Basin), which is contiguous with the political boundaries of the County of San Diego, encompassing 4,260 square miles. For impacts related to exposing sensitive receptors to substantial pollutant concentrations and emissions of dust, odors, and other potential nuisance emissions, the local study area consists of areas surrounding Project work sites where emissions would be most concentrated, and the analysis focuses on the nearest receptors.

3.3.1 Environmental Setting

Air quality is a function of both the rate and location of pollutant emissions under the influence of meteorological conditions and topographic features that influence pollutant movement and dispersal. Atmospheric conditions such as wind speed, wind direction, atmospheric stability, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants, which affects air quality.

Regional Topography, Meteorology, and Climate

The Air Basin is divided by the Laguna Mountain Range that generally runs parallel to the coast approximately 45 miles inland and separates the coastal area from the desert area. The Laguna Mountains have peaks reaching over 6,000 feet above mean sea level. The coastal region, where the Project would be located, is made up of coastal terraces that rise from the ocean into wide mesas[1] that transform into the Laguna foothills farther to the east. From the foothills, the topography gradually rises to the rugged Laguna Mountain range.

The climate of the Air Basin is dominated by a semi-permanent high pressure cell located over the Pacific Ocean. This cell influences the direction of prevailing winds (westerly to northwesterly) and

[1] A mesa is a flat-topped mountain or hill. It is a wide, flat, elevated landform with steep sides.

maintains clear skies for much of the year. The topography and climate influence air quality in the Air Basin and are considered constraints on efforts to reduce air pollution in the region. During the summer months, a warm air mass frequently descends over the cool, moist marine layer produced by the interaction between the ocean's surface and the lowest layer of the atmosphere. This warm upper layer forms a cap over the cool marine layer and inhibits pollutants in the marine layer from dispersing away from the surface. In addition, light winds during the summer further limit ventilation. The Air Basin experiences more days of sunlight than many other urban areas in the nation, and sunlight triggers the photochemical reactions that produce ozone, a criteria pollutant (San Diego County, 2011).

The study area typically has average maximum and minimum winter (i.e., January) temperatures of 69 degrees Fahrenheit (ºF) and 43 ºF, respectively, while average summer (i.e., July) maximum and minimum temperatures are 87 ºF and 62 ºF, respectively. Rainfall averages approximately 16 inches per year (Weatherbase, 2018).

Criteria Air Pollutants

The U.S. Environmental Protection Agency (USEPA) has identified criteria air pollutants that are a threat to public health and welfare. These pollutants are called "criteria" air pollutants because standards have been established for each of them to meet specific public health and welfare criteria (see Section 3.3.2, *Regulatory Setting*). The following criteria pollutants are a concern in the regional study area.

Ozone

Ozone (O_3) is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and that can cause substantial damage to vegetation and other materials. Ozone is not emitted directly into the atmosphere, but is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) and oxides of nitrogen (NO_x), including nitrogen dioxide (NO_2). ROG and NO_x are known as precursor compounds for ozone. Significant ozone production generally requires ozone precursors to be present in a stable atmosphere with strong sunlight for approximately 3 hours.

Ozone is a regional air pollutant because it is not emitted directly by sources, but is formed downwind of sources of ROG and NO_x under the influence of wind and sunlight. Ozone concentrations tend to be higher in the late spring, summer, and fall, when the long sunny days combine with regional subsidence inversions to create conditions conducive to the formation and accumulation of secondary photochemical compounds, like ozone.

Particulate Matter

Respirable particulate matter (PM_{10}) and fine particulate matter ($PM_{2.5}$) represent fractions of particulate matter that can be inhaled into air passages and the lungs and can cause adverse health effects. Particulate matter in the atmosphere results from many kinds of dust- and fume-producing industrial and agricultural operations, fuel combustion, and atmospheric photochemical reactions. Some sources of particulate matter, such as demolition and construction activities, are more local in

nature, while others, such as vehicular traffic, have a more regional effect. Very small particles of certain substances (e.g., sulfates and nitrates) can cause lung damage directly, or can contain absorbed gases (e.g., chlorides or ammonium) that may be injurious to health. Particulates can also damage materials and reduce visibility.

Other Criteria Pollutants

Carbon monoxide (CO) is a non-reactive pollutant that is a product of incomplete combustion and is mostly associated with motor vehicle traffic. High CO concentrations develop primarily during winter when periods of light winds combine with the formation of ground level temperature inversions (typically from the evening through early morning). These conditions result in reduced dispersion of vehicle emissions. Motor vehicles also exhibit increased CO emission rates at low air temperatures. When inhaled at high concentrations, CO combines with hemoglobin in the blood and reduces the oxygen-carrying capacity of the blood. This results in reduced oxygen reaching the brain, heart, and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease, or anemia.

Sulfur dioxide (SO_2) is produced through combustion of sulfur or sulfur-containing fuels such as coal. SO_2 is also a precursor to the formation of atmospheric sulfate and particulate matter (PM_{10} and $PM_{2.5}$) and contributes to potential atmospheric sulfuric acid formation that could precipitate downwind as acid rain. Lead has a range of adverse neurotoxin health effects, and was formerly released into the atmosphere primarily via leaded gasoline. The phase-out of leaded gasoline has resulted in decreasing levels of atmospheric lead.

Attainment Status

The Air Basin is classified as a non-attainment area for the state 1-hour and 8-hour ozone standards, as well as the federal 8-hour ozone standard. The Air Basin is also a non-attainment area relative to the state $PM_{2.5}$ and PM_{10} standards. For all other criteria pollutants, San Diego County is classified as either unclassified or as attainment with respect to state and federal standards (SDAPCD, 2018). Refer to **Table 3.3-1** for the current attainment status of the Air Basin.

Existing Ambient Air Quality

The San Diego Air Pollution Control District (SDAPCD) is the air district responsible for air quality within the Air Basin. The SDAPCD maintains a regional monitoring network that measures the ambient concentrations of criteria pollutants in the Air Basin. Ambient air quality measurements from air monitoring stations maintained by SDAPCD help to determine the level of air quality in the local area. The closest air quality monitoring stations to the Project alignment are the Camp Pendleton Station (10 miles northwest of Segments 1 and 2) and San Diego-Kearny Villa Road Station (17 miles south of Segment 3). There is an air monitoring station within 3 miles of Escondido Substation (Escondido East Valley Parkway station); however, this station has not published air monitoring data since 2015. **Table 3.3-2** shows a 5-year (2013 through 2017) summary of ozone, NO_2, PM_{10}, and $PM_{2.5}$ data monitored at the Camp Pendleton and San Diego-Kearny Villa Road stations. The data are compared to the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS).

TABLE 3.3-1
SAN DIEGO AIR BASIN CRITERIA POLLUTANT ATTAINMENT STATUS

Pollutant	Federal	State
Ozone (O_3, 1-hour standard)	---[1]	Nonattainment
Ozone (O_3, 8-hour standard)	Nonattainment	Nonattainment
Carbon Monoxide (CO)	Attainment	Attainment
Nitrogen Dioxides (NO_2)	Attainment	Attainment
Inhalable Particulates (PM_{10}) (24-hour)	Attainment	Nonattainment
Inhalable Particulates (PM_{10}) (annual mean)	Unclassifiable[2]	Nonattainment
Fine Particulates ($PM_{2.5}$) (annual mean)	Attainment	Nonattainment

1 The federal 1-hour standard of 12 ppm was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because it was employed for such a long period and because this benchmark is addressed in State Implementation Plans.
2 At the time of designation, if the available data does not support a designation of attainment or nonattainment, the area is designated as unclassifiable.

SOURCE: SDAPCD, 2018

TABLE 3.3-2
LOCAL AMBIENT AIR QUALITY DATA SUMMARY (2013-2017)

Pollutant	Standard	Monitoring Data by Year				
		2013	2014	2015	2016	2017
Ozone, O_3 – Camp Pendleton Station						
Highest 1-Hour Average, ppm		0.078	0.097	0.093	0.083	0.094
Days over State Standard	0.09 ppm	0	0	0	0	0
Highest 8-Hour Average, ppm		0.066	0.079	0.076	0.073	0.081
Days over National Standard	0.070 ppm[a]	0	5	2	4	4
Nitrogen Dioxide, NO_2 – Camp Pendleton Station						
Highest 1-Hour Average, ppm		0.081	0.060	0.060	0.072	0.063
Days over National Standard	0.100 ppm	0	0	0	0	0
Annual Average, ppm		0	0	0	0	0
Exceed State Standard?	0.030 ppm	No	No	No	No	No
Respirable Particulate Matter, PM_{10} – San Diego-Kearny Villa Road Station						
Maximum 24-Hour Average (µg/m^3)		38.0	39.0	37.0	35.0	47.0
Estimated Days over State Standard	50 µg/m^3	0	0	0	0	0
Estimated Days over National Standard	150 µg/m^3	0	0	0	0	0
State Annual Average (µg/m^3)		20	19.5	16.7	*	17.6
Exceed State Standard?	20 µg/m^3	No	No	No	No	No
Fine Particulate Matter, $PM_{2.5}$ – Camp Pendleton Station						
Highest 24-Hour Average (µg/m^3)		42.3	28.0	41.2	28.8	26.0
Estimated days over National Standard	35 µg/m^3	1.1	*	*	*	*
Annual Average (µg/m^3)		*	*	*	*	*
Exceed National and State Standard?	12.0 µg/m^3	Yes	No	No	*	*

NOTES: ppm = parts per million; µg/m^3 = micrograms per cubic meter; * insufficient data

a On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm. An area will meet the standard if the fourth-highest maximum daily 8-hour ozone concentration per year, averaged over 3 years, is equal to or less than 0.070 ppm. USEPA issued final designations by October 1, 2017. Nonattainment areas will have until 2020 to late 2037 to meet the health standard, with attainment dates varying based on the ozone level in the area.

SOURCE: CARB, 2018

Sensitive Receptors

Some people (receptors) are considered more sensitive than others to air pollutants. This may be due to age, pre-existing health problems, proximity to emissions sources, and/or duration of exposure to air pollutants. The term "sensitive receptors" can also refer to places where such people live and work. Schools, hospitals, and convalescent homes are considered to be places relatively sensitive to poor air quality because children, elderly people, and the infirm are more susceptible to respiratory distress and other air quality-related health problems than the general public. Additionally, all residential areas are considered sensitive to poor air quality because people typically spend more time at home than any single other place. Recreational sites are also considered sensitive due to the greater exposure to ambient air quality because vigorous exercise associated with recreation results in breathing in more air than when at rest.

The local study area consists of residential, institutional, recreational, industrial, and commercial land uses. San Marcos Substation is in area surrounded by single-family residences, with the nearest approximately 20 feet from the substation property boundary. The Escondido Substation is located in an area surrounded by industrial uses, and the nearest residences are located approximately 875 feet from the property boundary.

Sensitive receptors adjacent to Segment 1 include single-family residences, High Tech High North County (a high school) and San Marcos High School. The closest single-family residence is located approximately 30 feet from construction areas along Segment 1. High Tech High North County is located 260 feet from onsite construction areas along Segment 1 and San Marcos High School is located approximately 220 feet from onsite construction areas along Segment 1. Sensitive receptors adjacent to Segments 2 and 3 consist of clusters of single-family residences. The closest single-family residence along Segment 2 is located approximately 30 feet from construction areas, while the closest single-family residence along Segment 3 is located approximately 35 feet from construction areas.

Toxic Air Contaminants

Toxic Air Contaminants (TACs) are airborne substances that are capable of causing short-term (acute) and/or long-term (chronic or carcinogenic, i.e., cancer-causing) adverse human health effects (i.e., injury or illness). TACs include both organic and inorganic chemical substances. They may be emitted from a variety of common sources including gasoline stations, automobiles, dry cleaners, industrial operations, and painting operations. The current California list of TACs includes nearly 200 compounds, including Diesel Particulate Matter (DPM) exhaust emissions from diesel-fueled engines (CARB, 2011).

Valley Fever

Valley fever (formally known as Coccidioidomycosis) is an infectious disease caused by the fungus *Coccidioides sp*. Valley fever is also known as San Joaquin Valley fever, desert fever, or Cocci. Infection is caused by inhalation of *Coccidioides immitis* and *Coccidioides posadasii* spores that have become airborne when dry, dusty soil or dirt is disturbed by natural processes

such as wind or earthquakes, or by human induced ground-disturbing activities such as construction and farming.

The California Department of Public Health (CDPH) received reports of 16,108 incident cases of valley fever in the state from 2009 through 2012 (CDPH, 2014). In 2016, the number of valley fever cases in the state rose to 5,509, an increase of 71 percent from the previous year, and in 2017, the number rose again to 7,466 (CDPH, 2018). Coccidioidomycosis is highly endemic in the San Joaquin Valley and remains an important public health problem in California, but is not as prevalent in San Diego County as in other areas of the state. There were 274 reported cases of valley fever in San Diego County in 2017, for a rate of 8.3 cases per 100,000 people, as compared to 28.1 cases per 100,000 people in Ventura County and 150.4 cases per 100,000 people in San Luis Obispo County (CDPH, 2018). Some inland counties such as Kern and Kings counties experienced higher rates than these counties along the coast. There is currently no vaccine; efforts to develop a vaccine are ongoing (CDPH, 2014).

3.3.2 Regulatory Setting

Air quality within the Air Basin is addressed through the efforts of various federal, state, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through regulations, planning, policy-making, education, and a variety of programs. The air pollutants of concern and agencies primarily responsible for improving the air quality within the Air Basin and the pertinent regulations are discussed below.

Criteria Air Pollutants

Regulation of air pollution is achieved through both CAAQS and NAAQS as well as emission limits for individual sources of air pollutants. As required by the federal Clean Air Act (CAA), the USEPA has identified criteria pollutants and has established NAAQS to protect public health and welfare. NAAQS have been established for ozone, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead.

To protect human health and the environment, the USEPA has set “primary” and “secondary” maximum ambient standards for all seven criteria pollutants. Primary standards were set to protect human health, particularly sensitive receptors such as children, the elderly, and individuals suffering from chronic lung conditions such as asthma and emphysema. Secondary standards were set to protect the natural environment and prevent further deterioration of animals, crops, vegetation, and buildings.

The NAAQS are defined as the maximum acceptable concentration that may be reached, but not exceeded more than once per year. California has adopted more stringent ambient air quality standards (i.e., CAAQS) for some of the criteria air pollutants. **Table 3.3-3** presents both sets of ambient air quality standards (i.e., national and state) and provides the attainment status for each. California has also established CAAQS for sulfates, hydrogen sulfide, visibility reducing particles, and vinyl chloride; however, emissions of these pollutants are not expected under the Project and are not further discussed in this IS/MND.

TABLE 3.3-3
NATIONAL AND STATE AMBIENT AIR QUALITY STANDARDS

Criteria Pollutant	Averaging Time	State Standard	Federal Primary Standard
Ozone	8 Hour	0.070 ppm	0.070 ppm
	1 Hour	0.09 ppm	---
Carbon Monoxide	8 Hour	9.0 ppm	9 ppm
	1 Hour	20 ppm	35 ppm
Nitrogen Dioxide	Annual Average	0.030 ppm	0.053 ppm
	1 Hour	0.18 ppm	0.100 ppm
Sulfur Dioxide	Annual Average	---	0.030 ppm
	24 Hour	0.04 ppm	0.14 ppm
	1 Hour	0.25 ppm	0.075 ppm
Respirable Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 mg/m^3	---
	24 Hour	50 mg/m^3	150 mg/m^3
Fine Particulate Matter ($PM_{2.5}$)[h]	Annual Arithmetic Mean	12 mg/m^3	12.0 mg/m^3
	24 Hour	---	35 mg/m^3
Lead	3-Month Rolling Average	---	0.15 mg/m^3
Hydrogen Sulfide	1 Hour	0.03 ppm/42 $\mu g/m^3$	---
Sulfates	24 Hour	25 mg/m^3	---
Vinyl Chloride	24 Hour	0.01 ppm/26 $\mu g/m^3$	---
Visibility Reducing Particles	8 Hour	Extinction of 0.23/km; visibility of 10 miles or more	---

NOTES: ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter; mg/m^3 = milligrams per cubic meter; --- = no applicable standard
SOURCE: CARB, 2016

Federal

The USEPA is responsible for implementing programs established under the federal CAA, such as establishing and reviewing the NAAQS and judging the adequacy of State Implementation Plans (SIPs), but has delegated the authority to implement many of the federal programs to the states while retaining an oversight role to ensure that the programs continue to be implemented.

State

The California Air Resources Board (CARB) is responsible for establishing and reviewing the State standards, compiling the California SIP and securing approval of that plan from USEPA, conducting research and planning, and identifying toxic air contaminants. CARB also regulates mobile sources of emissions in California, such as construction equipment, trucks, and automobiles, and oversees the activities of California's air quality districts, which are organized at the county or regional level. County or regional air quality management districts are primarily responsible for regulating stationary sources at industrial and commercial facilities within their geographic areas and for preparing the air quality plans that are required under the federal CAA and California CAA.

California's Diesel Risk Reduction Plan / Diesel Fuel Regulations

As part of California's Diesel Risk Reduction Plan, CARB has passed numerous regulations to reduce diesel emissions from vehicles and equipment that are already in use. Combining these retrofit regulations with new engine standards for diesel fueled vehicles and equipment, CARB intends to reduce DPM emissions by 85 percent from year 2000 levels by 2020. California Diesel Fuel Regulations (13 Cal. Code Regs. §§2281-2285; 17 Cal. Code Regs. §93114) provide standards for diesel motor vehicle fuel and non-vehicular diesel fuel.

CARB has also adopted a regulation for in-use off-road diesel construction and mining vehicles that is designed to reduce their emissions by imposing idling limitations on owners, operators, renters, or lessees of off-road diesel vehicles. The regulation requires an operator of applicable off-road vehicles (self-propelled diesel-fueled vehicles 25 horsepower and up that were not designed to be driven on-road) to limit idling to no more than 5 minutes (13 Cal. Code Regs. §2249).

Local

San Diego Air Pollution Control District

The Project is located in the San Diego Air Basin, which includes all of San Diego County. The SDAPCD is the local air district with jurisdiction within this region. SDAPCD programs include the adoption and enforcement of regulations and policies, as well as implementation of education and public outreach programs. SDAPCD is responsible for attaining and/or maintaining air quality in the Air Basin relative to the federal and state air quality standards. Specifically, SDAPCD has the responsibility to monitor ambient air pollutant levels throughout the Air Basin and to develop and implement strategies to attain the applicable federal and state standards.

Regional Air Quality Strategy for San Diego County

The Regional Air Quality Strategy (RAQS) addresses state ozone standards and is the only air quality plan applicable to the study area. The RAQS details the measures and regulations that focus on managing and reducing ozone precursors, such as NO_x and ROGs. It is periodically updated as new measures are identified that are technologically feasible, improve air quality, and/or protect public health. The most recent update is the 2016 Revision of the RAQS (SDAPCD, 2016). The measures identified in the RAQS are primarily designed to reduce ozone precursor emissions from stationary sources under the jurisdiction of the SDAPCD, such as industrial operations and manufacturing facilities. Construction, operation, and maintenance of the Project would not include stationary emissions sources; therefore, the RAQS is not applicable.

Particulate Matter Air Quality Management Plan

The California CAA does not require local districts to establish an air quality management plan for State PM_{10} nonattainment, but the SDAPCD has addressed PM_{10} emissions by preparing a report entitled "Measures to Reduce Particulate Matter in San Diego County" (SDAPCD, 2005). The SDAPCD is considering rulemaking for category-specific particulate matter control measures for emissions from residential wood combustion and from fugitive dust generated at construction sites and from unpaved roads.

SDAPCD Regulation IV – Prohibitions, Rule 50 – Visible Emissions

This rule prohibits any activity that would create air contaminant emissions darker than 20 percent opacity for more than an aggregate of 3 minutes in any consecutive 60-minute time period.

SDAPCD Regulation IV – Prohibitions, Rule 51 – Nuisance

This rule prohibits any activity that would discharge air contaminants that cause or have a tendency to cause injury, detriment, nuisance, or annoyance to people and the public or damage to any business or property. This rule also applies to sources of objectionable odors and prohibits the release of such odors that would affect the public.

SDAPCD Regulation IV – Prohibitions, Rule 55 – Fugitive Dust Control

This regulation prohibits any construction or demolition activity that would discharge visible dust emissions into the atmosphere beyond the property line for more than 3 minutes during any 60-minute period. This regulation also prohibits visible roadway dust due to track-out or carry-out.

3.3.3 Applicant Proposed Measures

No Applicant Proposed Measures (APMs) proposed by SDG&E pertain to air emissions.

3.3.4 Environmental Impacts

Discussion

a) Conflict with or obstruct implementation of the applicable air quality plan: *NO IMPACT.*

The only air quality plan applicable to the study area is the RAQS. The measures identified in the RAQS are primarily designed to reduce ozone precursor emissions from stationary sources under the jurisdiction of the SDAPCD, such as industrial operations and manufacturing facilities. Construction, operation, and maintenance of the Project would not include stationary emissions sources; therefore, the RAQS is not applicable to the Project. There would be no impact under this criterion.

b) Violate any air quality standard or result in a cumulatively considerable net increase in an existing or projected air quality violation: *LESS THAN SIGNIFICANT IMPACT.*

As summarized in Table 3.3-1, San Diego County is designated as non-attainment for the state 1-hour ozone standard, federal and state 8-hour ozone standard, state PM_{10} standard, and state $PM_{2.5}$ standard. The thresholds of significance for air pollutants that are used in this analysis were developed based on consideration of when the emission levels for which a project's individual emissions would be cumulatively considerable. If individual project emissions would exceed the identified significance thresholds discussed below, the project's contribution to a potential significant cumulative air quality impact would be cumulatively considerable. If project emissions would not exceed the significance thresholds, then the project's incremental

contribution to any potential cumulative impact would not be cumulatively considerable. As described below, the Project would not cause a cumulatively considerable net increase of any of these pollutants; therefore, the impact would be less than significant.

Construction

Construction would generate criteria air pollutant emissions over a period of up to 11 months. Exhaust emissions would result from construction equipment and machinery as well as from vehicular traffic generated by construction activities, commuting workers, and travel to and from staging yards for equipment and materials access and storage. The types of equipment and vehicles used would include line trucks, concrete trucks, haul trucks, pickup trucks, on-site generators, air compressors, bulldozers, backhoes, loaders, cabling equipment, and cranes. Medium- and light-duty helicopters would be used for overhead conductor stringing, transporting materials and supplies, and installation or removal of power line structures. Fugitive dust emissions would result from earthwork activities and entrained particulates that become airborne from vehicles traveling on paved and unpaved surfaces. Emission levels for the various construction activities would vary with the type of equipment, duration of use, operation schedules, and size of the construction labor force.

With its application for a Permit to Construct, SDG&E provided Project construction-related air pollutant emissions calculations and estimates. SDG&E's emission calculations were independently reviewed by the CPUC's consultant, Environmental Science Associates (ESA), and were found to be technically adequate. However, subsequent to submitting its application, SDG&E revised its Project to include an AC interference mitigation well system; therefore, ESA revised SDG&E's emissions calculations and estimates accordingly (see Appendix C, *Air Quality and Greenhouse Gas Emissions Calculations*). The California Emissions Estimator Model (CalEEMod) version 2016.3.2, and the construction schedule and equipment information presented in Chapter 2 were used to estimate the ground-based emissions of criteria pollutants generated during Project construction. This version of CalEEMod calculates the construction equipment exhaust emissions based on CARB's OFFROAD2011 model equipment emission and load factors and EMFAC2014 for on-road vehicles. Helicopter pollutant emissions were estimated based on emissions factors identified in USEPA's *Air Pollutant Emissions for Military and Civil Aircraft* (USEPA, 1978). All modeling details and assumptions can be found in Appendix C, *Air Quality and Greenhouse Gas Emissions Calculations*.

Table 3.3-4, *Maximum Daily Construction Emissions Summary*, presents the estimated peak daily Project construction emissions. These emissions would be dispersed throughout the study area at the various Project sites where activities would occur concurrently. For information on the types and amounts of construction equipment that would be used, refer to Table 2-6, *Estimated Construction Equipment and Personnel*, in Chapter 2.

To determine whether a significant impact would occur during construction, the SDAPCD and San Diego County recommend quantifying construction emissions and comparing them to Air Quality Impact Analysis trigger levels (pounds per day) found in the SDAPCD regulations for stationary sources (pursuant to Rule 20.2, et seq.) (SDAPCD, 1998). The SDAPCD did not establish these trigger levels specifically for CEQA purposes or to assess mobile source or construction emissions, but it considers any project emissions that would exceed the trigger levels to

TABLE 3.3-4
MAXIMUM DAILY CONSTRUCTION EMISSIONS SUMMARY

Year/Source	Emissions (pounds per day)					
	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
2019						
Construction Emissions	3.15	30.09	18.85	0.04	48.00	6.08
Total	**3.15**	**30.09**	**18.85**	**0.04**	**48.00**	**6.08**
2020						
Construction Emissions	18.42	173.06	112.53	0.32	87.60	14.74
Helicopter Emissions	4.32	18.08	8.88	2.50	2.92	2.89
Total	**22.74**	**191.14**	**121.41**	**2.82**	**90.52**	**17.63**
Maximum Daily Emissions	**22.74**	**191.14**	**121.41**	**2.82**	**90.52**	**17.63**
Threshold	**75**	**250**	**550**	**250**	**100**	**55**
Significant?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

SOURCES: SDG&E, 2017; ESA, 2018; see Appendix C

potentially cause or contribute to a violation of an ambient air quality standard (SDAPCD, 1998). Therefore, the CPUC has determined that use of the SDAPCD significance thresholds are appropriate for a conservative evaluation as to whether Project construction or operation emissions could cause a violation of an air quality standard or contribute to an exceedance of an ambient air quality standard.

Since Rule 20.2 does not have trigger levels for ROG and $PM_{2.5}$, thresholds for these pollutants identified in San Diego County's *Land Use and Environment Group's Draft Guidelines for Determining Significance and Report Format and Content Report Format and Content Guidance Requirements, Air Quality* were used (San Diego County, 2007). The County found, and CPUC agrees, that use of these thresholds to evaluate projects in the County are appropriate because the ROG[2] threshold has been adopted by the South Coast Air Quality Management District's (SCAQMD) Air Quality Significance Thresholds (SCAQMD, 2015), which borders the county to the north and generally has stricter emissions thresholds than SDAPCD, and because the $PM_{2.5}$ threshold is based on USEPA's *Proposed Rule to Implement the Fine Particle National Ambient Air Quality Standards* (USEPA, 2005).

As disclosed in Table 3.3-4, maximum daily construction emissions would not exceed any of the thresholds of significance. Therefore, exhaust and fugitive dust emissions from Project construction would not result in a violation or contribute to a violation of an air quality standard. The associated impact would be less than significant.

[2] For the purposes of this analysis, ROG ozone precursors are assumed to be the same as volatile organic compounds (VOC) ozone precursors.

Operation and Maintenance

In general, routine Project operation and maintenance would be substantially the same as current conditions, but could result in a small number of additional worker vehicle trips. These additional trips would result in substantially lower emissions than the construction emissions presented in Table 3.3-4, which do not exceed the SDAPCD/County significance thresholds. Therefore, operation and maintenance of the Project would not result in a violation or contribute to a violation of an air quality standard, and the impact would be less than significant.

c) Expose sensitive receptors to substantial pollutant concentrations: *LESS THAN SIGNIFICANT IMPACT.*

Diesel particulate matter (DPM) was identified as a TAC by CARB in 1998. Project construction would result in temporary and short-term generation of DPM emissions from the use of off-road diesel equipment and from material deliveries and debris hauling using on-road heavy-duty trucks. Long-term sources of Project DPM emissions would be negligible and limited to a few vehicle trips per month related to inspection and maintenance activities.

The dose to which receptors are exposed is the primary factor affecting health risk from TACs. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. According to the Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments, which determine the exposure of sensitive receptors to TAC emissions, should be based on 9, 30, and/or 70-year exposure periods when assessing TACs (such as DPM) that have only cancer or chronic non-cancer health effects. However, such health risk assessments should be limited to the duration of the emission-producing activities associated with the Project, unless the activities occur for less than 6 months. Activities that would last more than 2 months, but less than 6 months, are recommended to be evaluated as if they would last for 6 months. The OEHHA does not recommend assessing cancer risk for projects lasting less than 2 months near the maximum exposed individual resident, or MEIR. (OEHHA, 2015)

Construction would occur over a period of up to 11 months along 12 miles of 69 kilovolt (kV) overhead and underground electric power line from the existing San Marcos Substation to the existing Escondido Substation. As described in Section 2.5.1, *Construction Schedule and Sequencing*, construction along the power line alignment segments would move along the alignment and would not be expected to expose any one receptor along the corridors for longer than three weeks. The total construction emissions and duration of exposure at any one sensitive receptor location along the power line alignment would be relatively minor compared to the exposure periods used in health risk assessments. In addition, the long-term operation of the Project would not result in any sources of TAC emissions. As a result, existing sensitive receptors would not be exposed to substantial TAC emissions from the Project, and this impact would be less than significant.

d) Result in substantial emissions (such as odors or dust) adversely affecting a substantial number of people: *LESS THAN SIGNIFICANT IMPACT.*

Project operation and maintenance would not create odorous or fugitive dust emissions. However, Project construction would include emissions sources, such as the operation of diesel equipment, which could result in the creation of objectionable odors and fugitive dust. Since construction activities would be limited to an 11-month period (at most) and would be spatially dispersed, these activities would not affect a substantial number of people in a given location for more than three weeks at a time. In addition, the Project would be required to comply with the SDAPCD's Regulation IV, which prohibits any construction or demolition activity that would discharge visible dust emissions into the atmosphere beyond the property line for more than 3 minutes during any 60-minute period. Therefore, impacts from odors and fugitive dust generated by construction would be less than significant.

Construction activities that include ground disturbance would have the potential to release *coccidioides immitis* spores. Although emissions of spores that cause valley fever could have the potential to adversely affect a substantial number of people, valley fever-related impacts associated with the Project would not be considered significant because ongoing ground-disturbing activities in the County currently represent a continual source of spores that contribute to the low number of valley fever cases reported each year. Project construction would result in localized ground-disturbing activities similar to those that occur continually within the County and the Project would not result in a substantial increase in spore release compared to baseline conditions. Therefore, Project construction would not represent an increased risk to public health. In addition, implementation of SDAPCD's Regulation IV, which requires implementation of fugitive dust control measures, would ensure that fugitive dust that could contain *coccidioides immitis* spores would be controlled to the maximum extent feasible. Valley fever-related impacts would be less than significant.

3.3.5 References

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3.4 Biological Resources

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
4.	**BIOLOGICAL RESOURCES — Would the project:**				
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c)	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

This section describes the existing environment for wildlife, botanical, and wetland resources within and adjacent to the Project site, as well as adjacent habitats and habitat suitability considered for biological resources within an approximate 500-foot buffer from the limits of the Project area that could reasonably be affected by Project construction, operation and maintenance activities. This is the biological study area (BSA) analyzed for potential Project impacts to biological resources.

The setting information presented herein was compiled from available scientific literature and database searches, general biological reconnaissance and focused species surveys, and the Biological Technical Report (ICF, 2017a; included in this IS/MND as Appendix D.2). Additionally, a reconnaissance-level site-visit was performed by Environmental Science Associates (ESA) on April 11, 2018, to verify field conditions.

3.4.1 Environmental Setting

Regional Setting

The Project site is located in the coastal hills of San Diego County's northern valley within the cities of Carlsbad, Escondido, Vista, San Marcos, and unincorporated areas of San Diego County. San Diego County is a biologically diverse region that supports rare and declining native habitats, federal and State-listed plant and animal species, and federally designated critical habitat for listed species. Topography in the BSA varies between flat terrain and steep slopes. The elevation of the Project site ranges from approximately 500 feet to 1,150 feet above mean sea level (amsl).

The Project would traverse developed residential neighborhoods, industrial facilities, open space preserves, and commercial and vacant lots. All construction would occur within existing rights-of-way (ROW), franchise positions (city/county roadways), and SDG&E fee-owned property.

Vegetation Communities

Vegetation communities and the plants that typically occur within these vegetation communities were classified according to Holland (1986) as modified by Oberbauer et al. (2008). Twenty-three distinct Holland/Oberbauer vegetation communities or land cover types occur within the approximate 680-acre BSA (ICF, 2017a). The BSA is dominated by Holland/Oberbauer classifications of urban/developed areas, disturbed habitat, Diegan coastal sage scrub, and coastal sage-chaparral transition. The approximate acreages for each vegetation community and land cover type within the BSA are listed in **Table 3.4-1**. Maps depicting the distribution of the vegetation communities throughout the BSA are presented in Appendix D.1, Figures 3.4-1.1 through 3.4-1.22.

Disturbed Habitat

Disturbed habitat consists of areas supporting densely to sparsely distributed weedy, non-native vegetation, compacted dirt roads, and other areas that do not support vegetation due to human interference. In the BSA, disturbed habitat consists of dirt roads and areas supporting non-native herbaceous species such as fennel (*Foeniculum vulgare*), redstem filaree (*Erodium cicutarium*), longbeak filaree (*Erodium botrys*), wild oat (*Avena fatua*), tocalote (*Centaurea melitensis*), and African fountain grass (*Pennisetum setaceum*). Some of the disturbed habitat in the BSA occurred in areas that appeared to have been used for agricultural purposes in the past.

Urban/Developed

Urban/developed areas consist of pavement, asphalt, permanent or semi-permanent structures, hardscape, and associated landscaping. These areas are typically devoid of vegetation with the exception of landscaped areas. Within the BSA, urban/developed areas consisted of paved roads, gravel roads, private residences, buildings, and associated landscaping.

Orchard/Vineyard

Orchard/vineyards describes areas supporting the cultivation of non-native plants, such as fruit trees. These trees are typically artificially irrigated and the understory is kept clear of vegetation or support scattered non-native herbaceous plant species. Within the BSA, orchards/vineyards consist of cultivated ornamental bushes including book-leaf mallee (*Eucalyptus kruseana*), citrus (*Citrus* sp.), and waxflower (*Chamelaucium* sp.).

TABLE 3.4-1
VEGETATION COMMUNITIES WITHIN THE BSA

NCCP[a] Vegetation Community	Holland/Oberbauer Vegetation Community[b]/ Land Cover Type	Approximate Acreage in BSA
Developed/Disturbed Land Cover Types		
Disturbed Habitat	Disturbed Habitat	124.0
	Urban/Developed	247.9
	Orchard/Vineyard	10.7
Agricultural	Intensive Agriculture	0.8
Uplands		
Coastal Sage Scrub	Diegan Coastal Sage Scrub*	103.5
	Diegan Coastal Sage Scrub-Burned*	0.6
	Diegan Coastal Sage Scrub-Disturbed*	18.7
Coastal Sage/Chaparral Mix	Coastal Sage-Chaparral Transition*	125.6
Southern Maritime Chaparral	Southern Maritime Chaparral*	20.8
	Southern Maritime Chaparral-Burned*	1.0
Grassland	Non-Native Grassland*	9.9
Open Oak Woodland	Coast Live Oak Woodland*	5.9
	Coast Live Oak Woodland-Disturbed*	0.3
Eucalyptus Forest	Non-Native Woodland	1.0
	Eucalyptus Woodlands	3.6
Riparian and Wetland		
Freshwater Marsh	Emergent Wetlands*	0.6
	Coastal and Valley Freshwater Marsh*	0.2
Riparian Forest	Southern Riparian Forest*	3.9
Coast Live Oak Riparian Forest	Southern Coast Live Oak Riparian Forest*	0.7
Riparian Scrub	Mule Fat Scrub*	0.1
	Southern Willow Scrub*	0.4
	Southern Willow Scrub-Disturbed*	0.0
Inland Water	Fresh Water	0.2
Total		**680.3**

NOTES:

[a] The SDG&E Subregional NCCP is discussed below in Section 3.4.2, Regulatory Setting, under the subheading "Other Technical Plans"

[b] Vegetation community codes correspond to Oberbauer et al. (2008), which also mirror Holland's (1986) element code. These codes help define the vegetation hierarchy inherent in a classification system. Similarly coded vegetation communities exhibit similar assemblages of plant and animal species, and typically exist in similar macro-habitat types.

* Indicates a sensitive natural community.

SOURCE: ICF, 2017a

Intensive Agriculture

Intensive agriculture includes dairies, nurseries, chicken ranches, and open spaces used to keep livestock, such as corrals. Agricultural areas on site included corrals and associated unvegetated areas. Some of these areas support weedy plant species similar to those listed under disturbed habitat.

Diegan Coastal Sage Scrub

Diegan coastal sage scrub is composed of low-growing, aromatic, drought-deciduous, soft-woody shrubs that have an average height of 3 to 4 feet. This habitat is typically found on sites with steep, dry slopes or on clay-rich soils that are slow to release stored water. These sites often include drier south- and west-facing slopes and occasionally north-facing slopes, where the community can act as a successional phase of chaparral development.

In the BSA, Diegan coastal sage scrub supports California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), California buckwheat (*Eriogonum fasciculatum*), laurel sumac (*Malosma laurina*), deerweed (*Acmispon glaber* var. *brevialatus*), spreading goldenbush (*Isocoma menziesii*), California encelia (*Encelia californica*), blue-eyed-grass (*Sisyrinchium bellum*), fascicled tarplant (*Deinandra fasciculata*), windmill catchfly (*Silene gallica*), and dotseed plantain (*Plantago erecta*).

The abundance of non-native plant species, as well as the sparse distribution of typically dominant shrub species, are the characteristics that distinguish Diegan coastal sage scrub-disturbed from undisturbed Diegan coastal sage scrub. In the BSA, Diegan coastal sage scrub-disturbed is predominated by black sage, California buckwheat, or spreading goldenbush. Other plants commonly found in Diegan coastal sage scrub-disturbed included shortpod mustard (*Hirschfeldia incana*), California sagebrush, prickly Russian thistle (*Salsola tragus*), wild oat, fascicled tarplant, and coyote bush (*Baccharis pilularis*).

Portions of Diegan coastal sage scrub occurring in the southwestern portion of the BSA burned during the Poinsettia Fire in 2014. In the vegetation communities maps these areas are labeled, “Diegan Coastal Sage Scrub-Burned” (Appendix D.1). Shrubs in “Diegan Coastal Sage Scrub-Burned” were re-sprouting at the time of the survey and include laurel sumac, spreading goldenbush, California sagebrush, and wild cucumber (*Marah macrocarpa*).

Coastal Sage-Chaparral Transition

Coastal sage-chaparral transition consists of a mixture of herbaceous, woody, and shrubby species that forms a community with features of both coastal sage scrub and chaparral. It appears to be a post-fire successional community.

In the BSA, coastal sage-chaparral scrub is dominated by chamise and California sagebrush and occurred adjacent to Diegan coastal sage scrub. This vegetation community also supports coyote bush, black sage, sawtooth goldenbush, and laurel sumac.

Southern Maritime Chaparral

Southern maritime chaparral is typically a low-growing chaparral with open vegetation and occurs in areas within the fog belt. This habitat type is dominated by wart-stem-lilac (*Ceanothus verrucosus*) with Del Mar manzanita (*Arctostaphylos glandulosa* ssp. *crassifolia*) often occurring as a co-dominant.

In the BSA, southern maritime chaparral is dominated by wart-stem-lilac and for the most part consists of a tall, impenetrable stand of woody shrubs. Other plants detected in this vegetation community include chamise (*Adenostoma fasciculatum*), black sage, sawtooth goldenbush (*Hazardia squarrosa*), mission manzanita (*Xylococcus bicolor*), bushrue (*Cneoridium dumosum*), white flowering currant (*Ribes indecorum*), Nuttall's snapdragon (*Antirrhinum nuttallianum*), heartleaf bush penstemon (*Keckiella cordifolia*), California brickellbush (*Brickellia californica*), slender sunflower (*Helianthus gracilentus*), and blue dicks (*Dichelostemma capitatum*).

Portions of southern maritime chaparral occurring in the southwestern portion of the BSA burned during the Poinsettia Fire in 2014. In the vegetation communities maps these areas are labeled southern maritime chaparral-burned (Appendix D.1). Shrubs in southern maritime chaparral-burned were re-sprouting and these areas supported additional species including large flower phacelia (*Phacelia grandiflora*), Fendler's meadow-rue (*Thalictrum fendleri*), and pineapple weed (*Matricaria discoidea*).

Non-native Grassland

Non-native grassland consists of a dense to sparse cover of annual grasses with flowering culms measuring approximately 1-meter-high (i.e., 3.28 feet), which may include numerous native wildflowers, particularly in years of high rainfall (Holland 1986). These annuals germinate with the onset of the rainy season and set seeds in the late spring or summer.

In the BSA, non-native grassland supports wild oat, ripgut brome (*Bromus diandrus*), shortpod mustard, fascicled tarplant, Crete weed (*Hedypnois cretica*), prickly Russian thistle, and spreading goldenbush. Some of the non-native grasslands in the survey area occurred in areas that appeared to have been used for agricultural purposes in the past.

Coast Live Oak Woodland

Coast live oak (*Quercus agrifolia*) is the dominant tree occurring in coast live oak woodland, reaching 30 to 80 feet in height. The shrub layer is usually poorly developed, and the herb layer is continuous and dominated by non-native grasses. This community typically occurs on north-facing slopes and shaded ravines.

In the BSA, coast live oak woodland is dominated by dense groupings of coast live oaks. The understory consists of blessed milkthistle (*Silybum marianum*), tumble mustard (*Sisymbrium altissimum*), toyon (*Heteromeles arbutifolia*), coastal woodfern (*Dryopteris arguta*), ripgut brome, soft brome (*Bromus hordeaceus*), shepherd's purse (*Capsella bursapastoris*), and sticky mouse-ear chickweed (*Cerastium glomeratum*).

The abundance of non-native tree species is the characteristic that distinguishes disturbed coast live oak woodland from undisturbed coast live oak woodland. In the BSA, disturbed coast live oak woodland supports coast live oak, red gum (*Eucalyptus camaldulensis*), and European olive (*Olea europaea*). The understory consisted of ripgut brome, soft brome, tumble mustard, and shortpod mustard.

Non-native Woodland

Non-native woodland describes a woodland composed primarily of non-native trees (with possible minimal presence of native species) that were planted, typically for landscaping purposes, but are not maintained or irrigated. In the BSA, non-native woodland consists of Peruvian pepper tree (*Schinus molle*), European olive, and to a lesser degree, red gum and coast live oak.

Eucalyptus Woodland

Eucalyptus woodland is similar to non-native woodland, but consists of a monotypic stand of eucalyptus trees (*Eucalyptus* spp.). Eucalyptus woodlands with a dense canopy typically do not support vegetation in the understory, while woodlands in which trees are scattered may support a shrubby or herbaceous understory.

Emergent Wetlands

Emergent wetlands occur in areas with relatively persistent wetlands hydrology and shallow water conditions, often in previously disturbed areas where wetlands are emerging. Although the vegetation community is directly affected by flooding, the presence of emergent wetlands is typically controlled by the presence of groundwater.

Emergent wetland in the BSA supports spikerush (*Eleocharis* sp.), annual saltmarsh aster (*Symphyotrichum subulatum*), rabbit foot beard grass (*Polypogon monspeliensis*), ditch beard grass (*Polypogon interruptus*), and great marsh evening primrose (*Oenothera elata*). This vegetation community within the BSA occurs within a detention basin, approximately 0.2 acre in size, south of the staging yards adjacent to Citracado Parkway along Segment 3.

Coastal and Valley Freshwater Marsh

Coastal and valley freshwater marsh occurs in areas flooded by freshwater that lack a significant current. It is typically dominated by perennial, emergent monocots typically measuring 13 to 16 feet in height. In the BSA, coastal and freshwater marsh consists of southern cattail (*Typha domingensis*), California bulrush (*Schoenoplectus californicus*), great marsh evening primrose, and curly dock (*Rumex crispus*). This vegetation community occurs within a detention basin, approximately 0.2 acre in size, south of the staging yards adjacent to Citracado Parkway along Segment 3.

Southern Riparian Forest

Southern riparian forest is a winter-deciduous forest dominated by moderately tall broadleafed trees with a closed or moderately closed canopy. This vegetation community is typically found along streams and rivers. Southern riparian forest in the BSA is predominated by red willow

(*Salix laevigata*), mule fat (*Baccharis salicifolia*), Goodding's black willow (*Salix gooddingii*), San Diego marsh-elder (*Iva hayesiana*), great marsh evening primrose, western ragweed (*Ambrosia psilostachya*), and yerba mansa (*Anemopsis californica*). This vegetation community occurs along streams and canyon bottoms within the BSA.

Southern Coast Live Oak Riparian Forest

Southern coast live oak riparian forest is a dense forest dominated by coast live oak. It has a closed or almost closed canopy and has an understory that is typically richer in herbs and poorer in shrubs compared to other riparian communities. This vegetation community occurs in association with bottomlands and the outer floodplains along larger streams.

This portion of the BSA burned during the 2014 Poinsettia fire. The coast live oaks are still alive and present, but the understory consists mostly of non-native species including ripgut brome, blessed milkthistle, soft brome, scarlet pimpernel (*Anagallis arvensis*), tocalote, and tumble mustard.

Mule Fat Scrub

Mule fat scrub is a, tall, herbaceous riparian scrub strongly dominated by mule fat. This early seral community is maintained by frequent flooding. It is usually found in intermittent stream channels with fairly coarse substrate and moderate depth to the water table. In the BSA, mule fat scrub was identified in one location: a small, narrow stand of mule fat shrubs adjacent to a detention basin supporting coastal freshwater marsh.

Southern Willow Scrub

Southern willow scrub is described as dense, broadleafed, winter-deciduous riparian thickets dominated by several willow species. Most stands are too dense to allow much understory development. This early seral community requires repeated flooding to prevent succession to southern cottonwood-sycamore riparian forest. It is usually found in loose, sandy or fine gravelly alluvium deposited near stream channels during flood flows. In the BSA, southern willow scrub supports young red willow within a detention basin.

The abundance of non-native plant species, as well as the sparse distribution of typically dominant shrub species, are the characteristics that distinguish southern willow scrub-disturbed from undisturbed southern willow scrub. In the survey areas, disturbed southern willow scrub was supported arroyo willow (*Salix lasiolepis*) and Peruvian pepper tree. This vegetation community occurs adjacent to non-native woodland along the margins of a pond.

Fresh Water

Fresh water refers to a body of water that is present year-round, such as a lake or a pond. Within the BSA fresh water consists of a pond located along a drainage. This pond had water at the time of the survey.

Sensitive Natural Communities

The California Department of Fish and Wildlife (CDFW) provides an inventory of vegetation communities that are considered sensitive by State and federal resource agencies, academic institutions, and various conservation groups in the California Natural Diversity Database (CNDDB). Determination of the sensitivity level of the vegetation communities is based on the Nature Conservancy Heritage Program Status Ranks, which ranks vegetation communities on a global and statewide basis according to the number and size of remaining occurrences and recognized threats.

The following 16 sensitive natural communities occur within the BSA and may be affected by the Project:

- Diegan Coastal Sage Scrub
- Diegan Coastal Sage Scrub-Burned
- Diegan Coastal Sage Scrub-Disturbed
- Coastal Sage-Chaparral Transition
- Southern Maritime Chaparral
- Southern Maritime Chaparral-Burned
- Non-Native Grassland
- Emergent Wetlands
- Coastal and Valley Freshwater Marsh
- Southern Riparian Forest
- Southern Coast Live Oak Riparian Forest
- Mule Fat Scrub
- Southern Willow Scrub
- Southern Willow Scrub-Disturbed
- Coast Live Oak Woodland
- Coast Live Oak Woodland-Disturbed

Special-Status Species

Special status species include those listed as threatened or endangered under the Federal Endangered Species Act (FESA) or the California Endangered Species Act (CESA); animals listed as "fully protected" under the California Fish and Game Code; animals designated as "Species of Special Concern" by CDFW (formerly California Department of Fish and Game); and plants listed as rare or endangered by the California Native Plant Society (CNPS).

This analysis treats species that meet the CEQA Guidelines Section 15380(b)(1)-(2) definition of rare or endangered as special-status. As species of plants and animals become restricted in range and limited in population numbers, species may become listed or candidates for listing as Endangered or Threatened and become recognized under CEQA as a significant resource. Examples of such species are vernal pool fairy shrimp and burrowing owl; the former is listed by the federal government and the latter is considered a California species of special concern.

Species Surveys

KP Environmental and ICF biologists conducted general plant and wildlife surveys and vegetation mapping in 2015 and 2017 (ICF, 2017a). Focused biological surveys were conducted by ICF for special-status plant species, least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), and coastal California gnatcatcher (*Polioptila californica californica*) (ICF, 2016a; see Appendix B of IS/MND Appendix D.2). A habitat assessment for arroyo toad (*Anaxyrus californicus*) was conducted by KP Environmental in 2015 and ICF in 2016 (ICF, 2016b; see Appendix E of IS/MND Appendix D.2); however, no suitable habitat was found and so focused

surveys were not conducted. These surveys and assessments were conducted at a time when the corresponding resource or sign of its presence would have been observable.

Potential for Occurrence

ESA, on behalf of the CPUC, compiled a list of special-status species reported or expected to occur within the BSA based on SDG&E's biological studies (ICF, 2017a), and search results from CNDDB (CDFW, 2018), CNPS's Online Inventory of Rare and Endangered Plants (CNPS, 2018), and the U.S. Fish and Wildlife Service (USFWS) Trust Resource List (USFWS, 2018). The list is presented in **Table 3.4-2**. Special status species occurrences within a 5-mile radius of the Project are shown in **Figures 3.4-2a** through **3.4-2c**). In addition to physical occurrences, this database search radius also captures species with nesting and/or foraging habitat coinciding with the BSA.

A total of 37 special-status wildlife species are known to potentially occur in the BSA (Table 3.4-2). Of these special status wildlife species, five avian species were identified as present during surveys conducted, and 21 have potential to occur within the Project area based on the proximity of historical records and/or the presence of suitable habitat. These five avian species present are (the status code following each is defined at bottom of Table 3.4-2):

- Least Bell's vireo (FE, SE)
- Coastal California gnatcatcher (FT, SSC)
- Cooper's hawk (*Accipiter cooperii*; WL)
- Yellow warbler (*Setophaga petechia*; SC)
- Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*; WL)

Ten species are unlikely to occur within the BSA because they are associated with vernal pools (permanent or nearly permanent bodies of water with vegetated banks and basking sites or emergent wetlands with open water for foraging), which do not occur within the BSA. These species are the San Diego fairy shrimp (*Branchinecta sandiegonensis*), arroyo toad, southwestern pond turtle (*Actinemys marmorata pallida*), Belding's Savannah sparrow (*Passerculus sandwichensis beldingi*), burrowing owl (*Athene cunicularia*), light-footed Ridgeway's rail (*Rallus longirostris levipes*), western snowy plover (*Charadrius alexandrinus nivosus*), yellow-billed cuckoo (*Coccyzus americanus*), big free-tailed bat (*Nyctinomops macrotis*), and Townsend's big-eared bat (*Corynorhinus townsendii*).

Birds

Focused surveys were conducted for three avian species: coastal California gnatcatchers, least Bell's vireo, and southwestern willow flycatcher. Of these, only coastal California gnatcatchers and least Bell's vireo were identified as present in the BSA. Within the BSA, surveys identified 33 coastal California gnatcatcher territories. Of these, 22 were confirmed as being occupied by paired gnatcatchers, with three pairs identified to have nests and four pairs identified to have nestlings or fledglings. In addition, two least Bell's vireo migrants were detected within the BSA in 2016. The Cooper's hawk, yellow warbler, and southern California rufous-crowned sparrow were also detected within the BSA (ICF, 2017a).

TABLE 3.4-2
SPECIAL-STATUS WILDLIFE SPECIES WITH POTENTIAL TO OCCUR IN THE BSA

Species Name	Covered under the NCCP[a] (Yes/No)	Status[b] Federal/ State/ Local	Habitat Requirements	Potential to Occur
Amphibians				
Western spadefoot toad (*Spea* (=*Scaphiopus) hammondii*)	Yes	SSC	Temporary pools with water temperatures between 9 degrees Celsius (°C) and <30°C that last at least 3 weeks within areas of open vegetation.	Habitat requirements necessary for this species are limited within the BSA. **Low Potential**
Reptiles				
California glossy snake (*Arizona elegans occidentalis*)	No	SSC	Sandy habitat in grasslands, coastal sage scrub, and chaparral.	Historical records from 1946 from within 5 miles of the site. No modern records. The BSA generally does not support the sandy habitat preferred by this species. **Low Potential**
Coastal whiptail (*Aspidoscelis tigris stehnegeri*)	No	SSC	Inhabits coastal sage scrub, chaparral, riparian, oak woodlands, and rocky areas. Occurs in habitats with gravel or sandy soils, often associated with washes.	The BSA contains habitat suitable to support this species. Also, the CNDDB lists two occurrences within 1 mile of the BSA. **High Potential**
Coast horned lizard (*Phrynosoma blainvillii*)	Yes	SSC	Grasslands, brushlands, woodlands, and open coniferous forest with sandy or loose soil; requires abundant ant colonies for foraging.	The BSA contains habitat suitable to support this species. The CNDDB lists four occurrences within 1 mile of the BSA. **High Potential**
Coronado skink (*Plestiodon skiltonianus interparietalis*	Yes	WL	Forest, open woodland, and grassy areas. Usually found under leaf litter, logs, or rocks.	The BSA contains habitat suitable to support this species. CNDDB records within 5 miles of the BSA. **High Potential**
Coast patched-nosed snake (*Salvadora hexalepis virgultea*)	Yes	SSC	Inhabits semi-arid brushy areas and chaparral in canyons, rocky hillsides, and plains.	The BSA contains habitat suitable to support this species. Also, the CNDDB lists one occurrence within 1 mile of the BSA. **High Potential**
Orange-throated whiptail (*Aspidoscelis hyperythra*)	Yes	WL	Occurs in semi- arid, brushy areas typically with loose soil and rocks, including washes, streamsides, rocky hillsides, coastal sage scrub, and chaparral. Can also occur in weedy, disturbed areas adjacent to these habitats.	The BSA contains habitat suitable to support this species. Also, the CNDDB lists two occurrences within 1 mile of the BSA. **High Potential**
Two-striped garter snake (*Thamnophis hammondii*)	Yes	SSC	Inhabits perennial and intermittent streams with rocky beds and bordered by willow thickets or other dense vegetation.	While this species has been recorded within 1 mile of the BSA (CNDDB), the BSA contains limited habitat suitable to support this species. **Moderate Potential**

TABLE 3.4-2 (CONTINUED)
SPECIAL-STATUS WILDLIFE SPECIES WITH POTENTIAL TO OCCUR IN THE BSA

Species Name	Covered under the NCCP[a] (Yes/No)	Status[b] Federal/ State/ Local	Habitat Requirements	Potential to Occur
Birds				
Bells sage sparrow (*Artemisiospiza belli belli*)	No	WL	Open chaparral and sage scrubs.	Widespread but uncommon species. Appropriate habitat present in the BSA, but not observed during focused avian surveys in 2016. **Moderate Potential**
California horned lark (*Eremophila alpestris actia*)	No	WL	Grasslands, recently disturbed habitat where seeds and insects are easy to find.	Appropriate habitat present in the BSA, but not observed during focused avian surveys in 2016. **Moderate Potential**
Coastal California gnatcatcher (*Polioptila californica californica*)	Yes	FT, SSC	Prefers open scrubby habitats such as coastal sage scrub and some forms of chaparral.	Species was detected during the 2016 focused surveys. **Present**
Cooper's hawk (*Accipiter cooperii*)	Yes	WL	Oak groves and mature stands of riparian woodland. This species has adapted well to development and is abundant in urban canyons with eucalyptus trees.	Species was detected incidentally during site visits. **Present**
Least Bell's vireo (*Vireo bellii pusillus*)	Yes	FE, CE	Riparian thickets either near water or in dry portions of river bottoms; nests along margins of bushes and forages low to the ground; may also be found using mesquite and arrow weed in desert canyons.	Species was detected during the 2016 focused surveys. **Present**
San Diego cactus wren (*Campylorhynchus brunneicapillus sandiegensis*)	Yes	SSC	Resident in coastal sage scrub with extensive or large cactus. Normally nests in large cactus thickets, with nests over 3 feet aboveground.	Not detected during focused California gnatcatcher surveys in coastal sage scrub. Limited potential habitat present. **Low Potential**
Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)	Yes	WL	Fairly common, widespread, and generally fairly conspicuous resident of rocky grassland and patchy shrub habitats, often including areas with disturbance from fire, trash, soil compaction, and non-native vegetation.	Species was detected during the 2016 focused surveys. **Present**
Southwestern willow flycatcher *(Empidonax trallii extimus)*	Yes	FE CE	Will forage over a variety of habitats; primarily riparian habitats with stratified canopy layers and presence of water.	Potentially suitable nesting and foraging habitat for this species is located within the BSA and was surveyed in 2016. Species was not detected during 2016 focused USFWS-protocol surveys. **Low Potential**
Tricolored blackbird (*Agelaius tricolor*)	No	CT	Breeds primarily in freshwater marshes with tall emergent vegetation; also stinging nettle and upland habitats such as thickets of Himalayan blackberry. Forages in rangelands, shrublands and agricultural fields.	Suitable acreage of breeding and foraging is not present within the BSA. **Low Potential**

TABLE 3.4-2 (CONTINUED)
SPECIAL-STATUS WILDLIFE SPECIES WITH POTENTIAL TO OCCUR IN THE BSA

Species Name	Covered under the NCCP[a] (Yes/No)	Status[b] Federal/ State/ Local	Habitat Requirements	Potential to Occur
Birds (cont.)				
White-tailed Kite (*Elanus leucurus*)	No	CFP	Nests in trees or large shrubs. Forages in grasslands and coastal sage scrub.	Shrubs in chaparral provide suitable nesting habitat for this species. Kite is known from the region. Not observed during focused avian surveys of the BSA. **Moderate Potential**.
Yellow-breasted chat (*Icteria virens*)	No	SSC	Associated with mature riparian woodland. Common summer resident in appropriate habitat throughout San Diego County.	Species was not detected during 2016 focused riparian bird surveys; however, nesting and foraging habitat suitable to support this species is located within the BSA. **Moderate Potential**
Yellow warbler (*Setophaga petechia*)	No	SSC	Associated with mature riparian woodland. Common summer resident in appropriate habitat throughout San Diego County.	Species was detected during the 2016 focused surveys. **Present**
Mammals				
American badger (*Taxidea taxus*)	Yes	SSC	Inhabits a diversity of habitats with principal requirements of sufficient food, friable soils, and relatively open, uncultivated ground. Grasslands, savannas, mountain meadows, and desert scrub.	The BSA contains habitat suitable to support this species. This is a wide-ranging but uncommon species. The CNDDB lists one occurrence within 1 mile of the BSA. **Moderate Potential**
Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)	Yes	SSC	Coastal sage scrub, sage scrub/ grassland ecotones, and chaparral communities.	The BSA contains habitat suitable to support this species. Also, the CNDDB lists one occurrence within 1 mile of the BSA. **High Potential**
Pallid bat (*Antrozous pallidus*)	No	SSC	Throughout Southern California from coast to mixed conifer forest; grasslands, shrublands, woodlands, & forest; most common in open, dry habitats with rocky areas for roosting; yearlong resident in most of range. Roosts in rock crevices, caves, mine shafts, under bridges, in buildings and tree hollows.	Limited potential habitat within the BSA **Low Potential**
San Diego black-tailed jackrabbit (*Lepus californicus bennettii*)	Yes	SSC	Mostly found on the coastal side of local mountains in open habitats, usually avoiding dense stands of chaparral or woodlands.	The BSA contains habitat suitable to support this species. Also, the CNDDB lists one occurrence within 1 mile of the BSA. **High Potential**
San Diego desert woodrat (*Neotoma lepida intermedia*)	Yes	SSC	Variety of shrub and desert habitats primarily associated with rock outcroppings, boulders, cacti, or areas of dense undergrowth.	The BSA contains habitat suitable to support this species. CNDDB lists two occurrences within 1 mile of the BSA. **High Potential**

TABLE 3.4-2 (CONTINUED)
SPECIAL-STATUS WILDLIFE SPECIES WITH POTENTIAL TO OCCUR IN THE BSA

Species Name	Covered under the NCCP[a] (Yes/No)	Status[b] Federal/ State/ Local	Habitat Requirements	Potential to Occur
Mammals (cont.)				
Mule deer (*Odocoileus hemionus*)	Yes		Species can be found in a variety of habitats.	The BSA contains habitat suitable to support this species. **High Potential**

NOTES:
[a] SDG&E Subregional Natural Community Conservation Plan
[b] Explanation of State and federal listing codes:

Federal listing codes:
FE: Federally Endangered Species
FT: Federally Threatened Species
FC: Candidate for Federal Listing

California listing codes:
CE: State-listed Endangered Species
CR: State-listed Rare Species
CT: State-listed Threatened Species
SSC: California Species of Special Concern
CFP: California Fully Protected
WL: CDFW Watch List

SOURCE: CDFW, 2018

Mammals

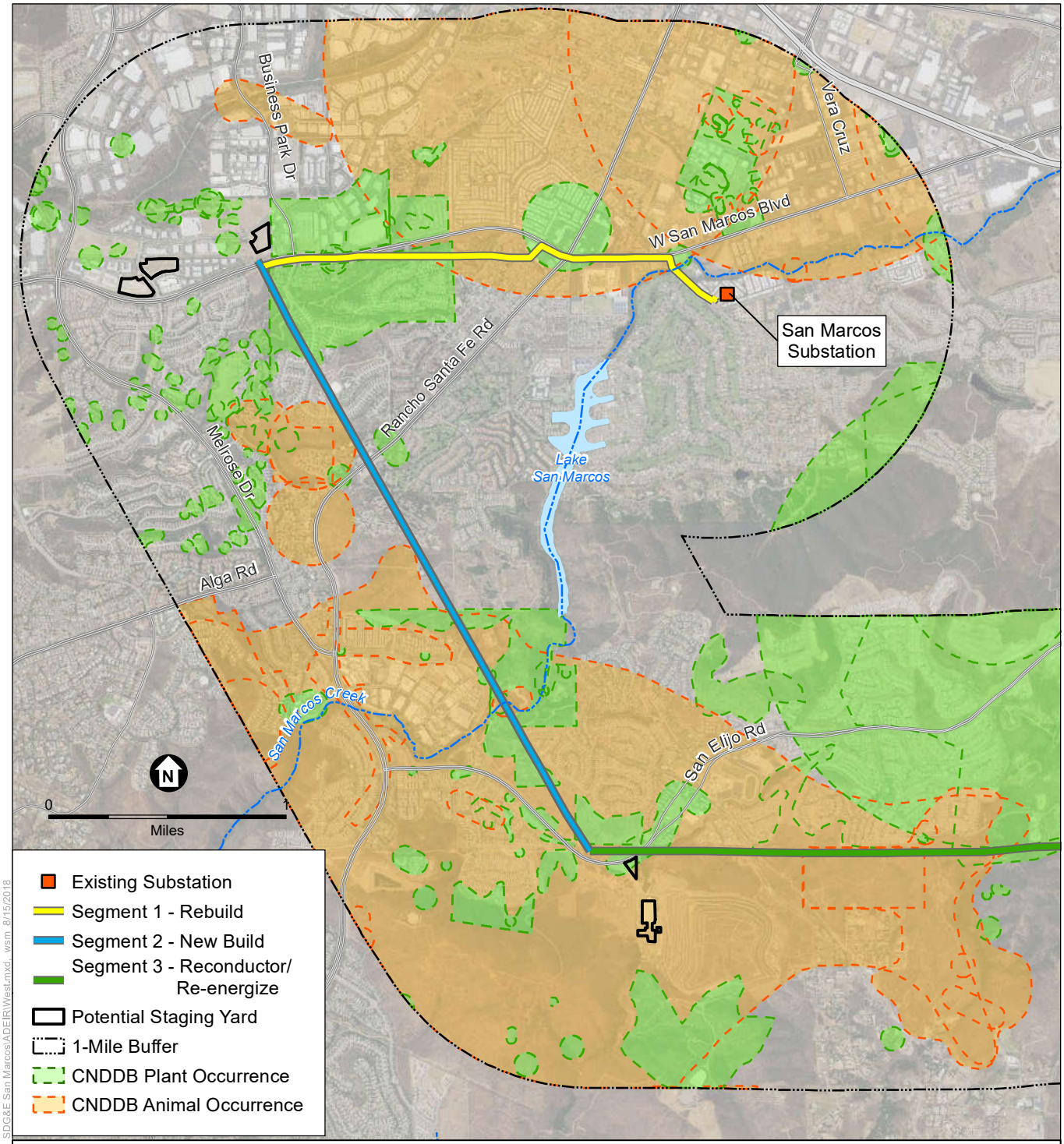
Five mammal species have moderate to high potential to occur within the BSA. The American badger has moderate potential to occur given that the BSA supports foraging and breeding habitat. In addition, northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), San Diego desert woodrat (*Neotoma lepidia intermedia*), and mule deer (*Odocoileus hemionus*) have high potential to occur within the BSA.

Reptiles

Six reptile species have moderate to high potential to occur within the BSA. The coastal whiptail (*Aspidoscelis tigris stehnegeri*), coast horned lizard (*Phrynosoma blainvillii*), Coronado skink (*Plestiodon skiltonianus interparietalis*), coast patch-nosed snake (*Salvadora hexalepis virgultea*), and orange-throated whiptail (*Aspidoscelis hyperythra*) have a high potential to occur within the BSA. The two-striped garter snake (*Thamnophis hammondii*) has a moderate potential to occur within the BSA.

Special-Status Plants

Thirty-five special-status plant species were evaluated for their potential to occur within 5 miles of the BSA. Of these, 13 special-status plant species were determined to be present during field surveys. One plant species has a moderate potential to occur, nine species have a low potential to occur, and 12 species are not expected to occur within the BSA (ICF, 2017a; see Appendix D of IS/MND Appendix D.2). These species are listed in **Table 3.4-3** below.



Animal Occurrences
American badger
Bell's sage sparrow
coast horned lizard
coastal California gnatcatcher
coastal whiptail
hoary bat
least Bell's vireo
northwestern S.D. pocket mouse
orange-throated whiptail
San Diego desert woodrat
San Diego fairy shrimp
So. Cal. rufous-crowned sparrow
Townsend's big-eared bat
two-striped gartersnake

Plant Occurrences
California adolphia
decumbent goldenbush
Del Mar manzanita
Encinitas baccharis
felt-leaved monardella
Nuttall's scrub oak
Orcutt's brodiaea
Palmer's grapplinghook
San Diego button-celery
San Diego goldenstar
San Diego marsh-elder
San Diego thorn-mint
southern tarplant
spreading navarretia
summer holly
thread-leaved brodiaea
wart-stemmed ceanothus

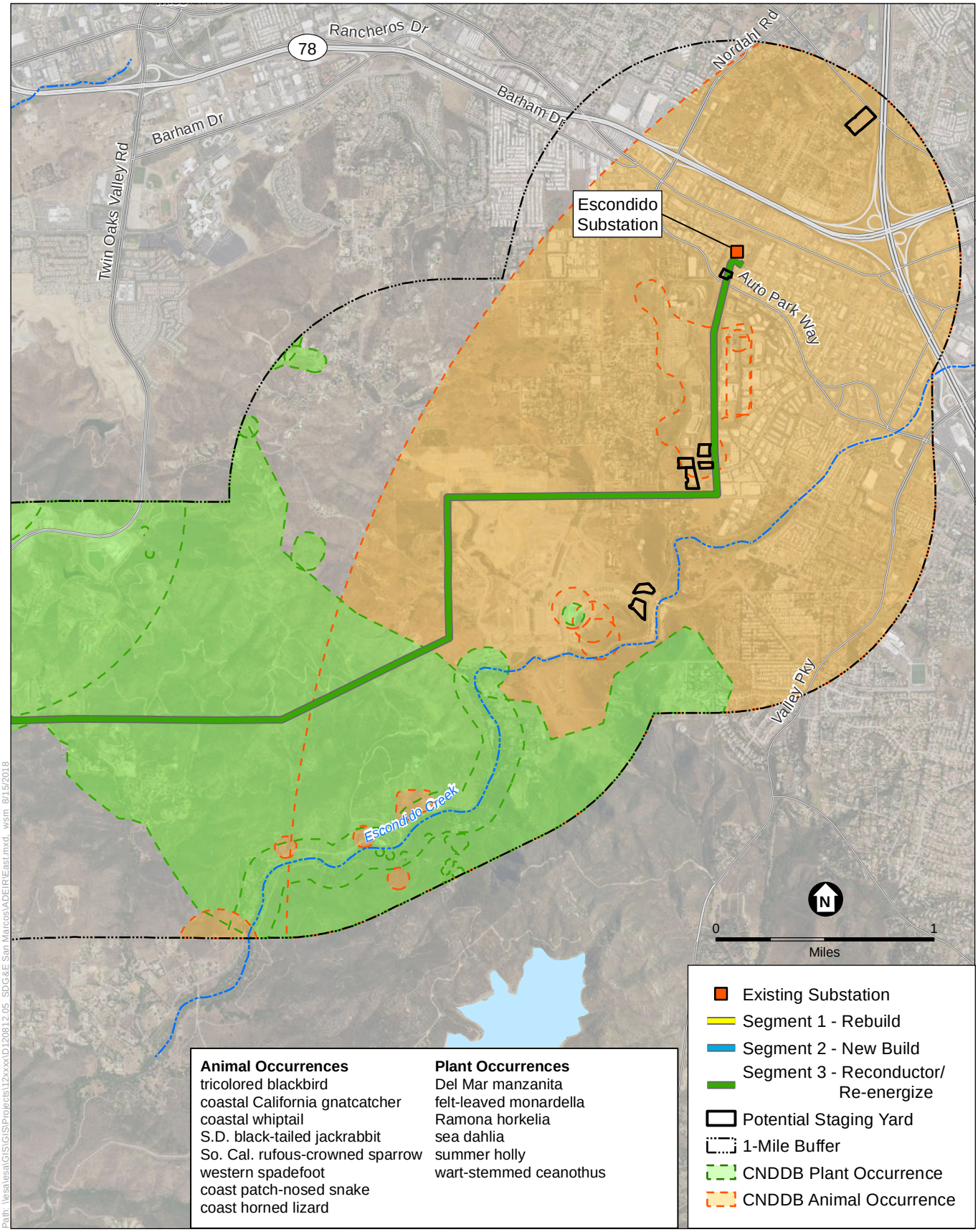
Path: J:\GIS\Projects\12xxxx\D120812.05_SDG&E San Marcos\ADEIR\West.mxd wsm 8/15/2018

Note: Only species within the extent of this map were included in the list above. Specific species locations are not shown per CNDDB mapping guidelines

SOURCE: SDGE, 2018; CDFW, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.4-2a
CNDDB Occurrences:
Western Project Area



Path: \\esa\esa\GIS\GIS\Projects\12xxxx\D120812.05_SDG&E San Marcos\ADEIR\East.mxd wsm 8/15/2018

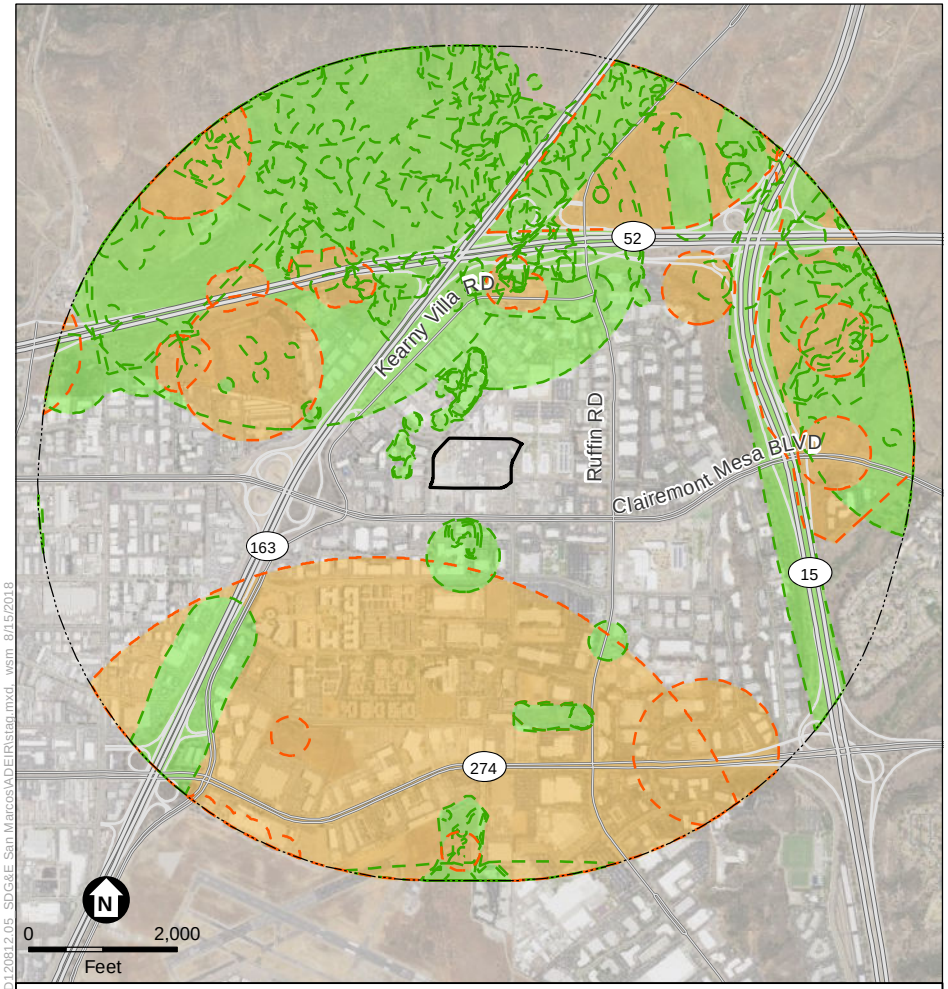
Note: Only species within the extent of this map were included in the list above. Specific species locations are not shown per CNDDB mapping guidelines

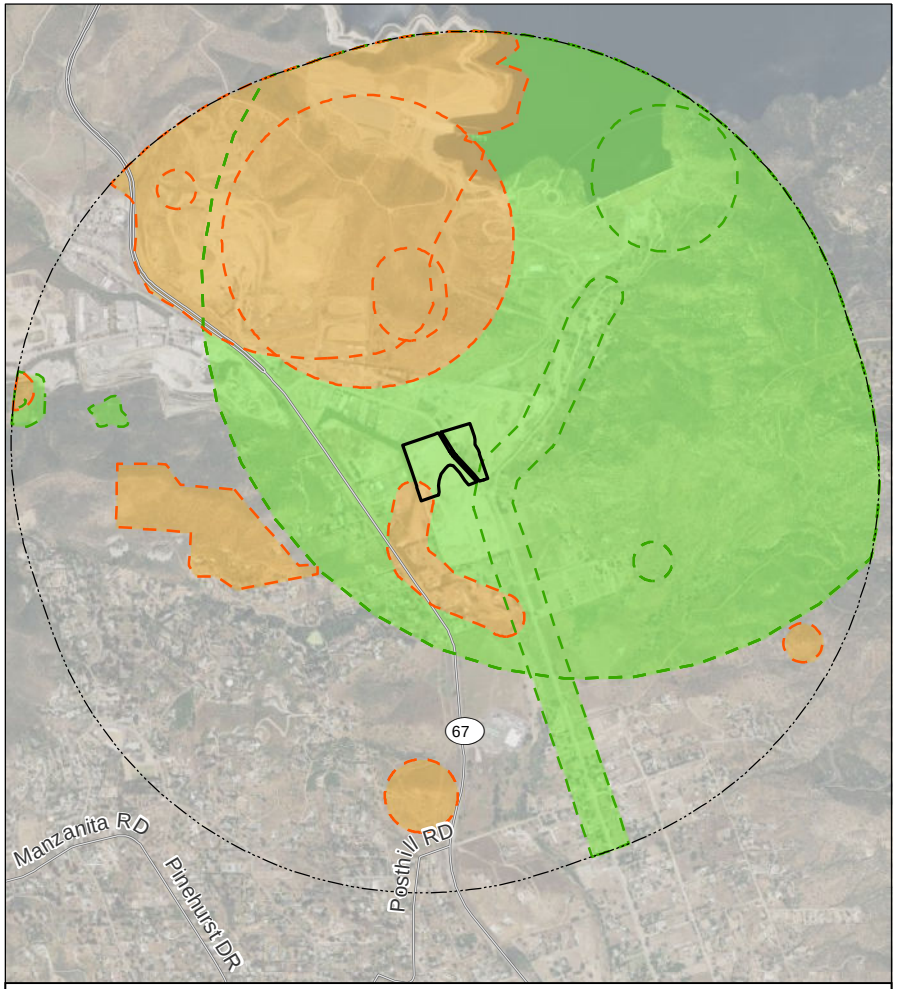
SOURCE: SDGE, 2018; CDFW, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.4-2b

CNDDB Occurrences: Eastern Project Area





Animal Occurrences
California glossy snake
coast horned lizard
coastal California gnatcatcher
Coronado skink
orange-throated whiptail
San Diego fairy shrimp

Plant Occurrences
California Orcutt grass
long-spined spineflower
oil neststraw
Orcutt's brodiaea
Palmer's grapplinghook
prostrate vernal pool navarretia
San Diego barrel cactus
San Diego button-celery
San Diego goldenstar
San Diego mesa mint
singlewhorl burrobrush
spreading navarretia
variegated dudleya
wart-stemmed ceanothus
willowy monardella
woven-spored lichen

Potential Staging Yard
1-Mile Buffer
CNDDB Plant Occurrence
CNDDB Animal Occurrence

Animal Occurrences
coastal California gnatcatcher
coastal whiptail
least Bell's vireo
orange-throated whiptail
quino checkerspot butterfly
red-diamond rattlesnake

Plant Occurrences
California adolphia
coastal triquetrella
decumbent goldenbush
delicate clarkia
Orcutt's brodiaea
San Diego goldenstar
San Diego thorn-mint

Path: \\esa\esa\GIS\GIS\Projects\12xxxx\D120812.05_SDG&E_San Marcos\ADE\R\stag.mxd_wsm_8/15/2018

Note: Only species within the extent of this map were included in the list above. Specific species locations are not shown per CNDDB mapping guidelines

SOURCE: SDGE, 2018; CDFW, 2018

ESA

TL 6975 San Marcos to Escondido Project

Figure 3.4-2c
CNDDB Occurrences:
Southern Project Area

TABLE 3.4-3
POTENTIAL FOR SPECIAL-STATUS PLANT SPECIES TO OCCUR IN THE BSA

Species Name	Covered under the NCCP[a] (Yes/No)	Listing Status[b]	Habitat Requirements	Potential to Occur
San Diego goldenstar (*Bloomeria clevelandii*)	No	1B.1	Perennial bulbiferous herb. Clay soils in chaparral, coastal sage scrub, valley grasslands, particularly near mima mound topography or the vicinity of vernal pools; 164–1,526 ft. Blooming period: April–May	Suitable habitat for this species occurs within the survey area. If present on- site this species would have been observed. **Low potential.**
Thread-leaved brodiaea (*Brodiaea filifolia*)	Yes	FT, SE, 1B.1	Perennial bulbiferous herb. Often found in clay soils in openings in chaparral, cismontane woodland, coastal scrub, playas, valley and foothill grassland, and vernal pools; 82–3,673 ft. Blooming period: March–June	Suitable habitat for this species occurs within the survey area. Surveys were conducted during an appropriate time of year to observe the species, and the species was not observed during surveys. However, all corms do not flower every year therefore there is a moderate potential for the species to occur. **Moderate potential**.
Orcutt's brodiaea (*Brodiaea orcuttii*)	Yes	1B.1	Bulbiferous herb. Found on mesic, clay, sometimes serpentinite soils in closed- cone coniferous forest, chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, and vernal pools; 98–5,550 ft. Blooming period: May–July	Approximately 147 individuals were observed within the southwestern portion of the survey area. **Present**.
Wart-stemmed ceanothus (*Ceanothus verrucosus*)	Yes	2B.2	Evergreen shrub. Chaparral; 3–1,240 ft. Blooming period: December–May	This species is found in extensive stands throughout the western half of the survey area**.** **Present**.
Orcutt's spineflower (*Chorizanthe orcuttiana*)	Yes	FE, SE 1B.1	Annual herb. Sandy openings in closed- cone coniferous forest, maritime chaparral, and coastal scrub; 9-410 ft. Blooming period: March - May	Primarily a coastal species. No current or historical records from inland areas such as the BSA occurs in. **Low Potential**
Summer holly (*Comarostaphylis diversifolia* ssp. *diversifolia*)	No	1B.2	Evergreen shrub. Chaparral and cismontane woodland; 98–2,590 ft. Blooming period: April–June	Approximately 57 individuals were observed in the western portion of the survey area. **Present.**
Del Mar sand aster (*Corethrogyne filaginifolia* var. *linifolia*)	Yes	1B.1	Perennial herb. Sandy soils in coastal bluff scrub, coastal scrub, and openings in maritime chaparral; 49-492 ft. Blooming period: May-September	Primarily a coastal species (w/in one mile of shore). No current or historical records from inland areas such as the BSA occurs in. **Low Potential**
Western dichondra (*Dichondra occidentalis)*	No	4.2	Perennial rhizomatous herb. Chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland; 164–1,640 ft. Blooming period: January–July	Approximately 200 individuals were detected within the western portion of the survey area. **Present.**

TABLE 3.4-3 (CONTINUED)
POTENTIAL FOR SPECIAL-STATUS PLANT SPECIES TO OCCUR IN THE BSA

Species Name	Covered under the NCCP[a] (Yes/No)	Listing Status[b]	Habitat Requirements	Potential to Occur
Blochman's dudleya (*Dudleya blochmaniae* ssp. *Blochmaniae)*	Yes	1B.1	Perennial herb. Rocky, often clay or serpentine soils in coastal bluff scrub, chaparral, coastal scrub, and valley and foothill grassland; 16-1476 ft. Blooming period: April - June	Primarily a coastal species, localized in the Camp Pendleton area. No current or historical records from inland areas such as the BSA occurs in. **Low Potential**
Variegated dudleya (*Dudleya variegata*)	Yes	1B.2	Perennial herb. Clay soils in chaparral, cismontane woodland, coastal scrub, valley and foothill grassland, and vernal pools; 9-1903 ft. Blooming period: April - June	Marginally suitable habitat present within the BSA. Rare plant surveys were done at an appropriate time of year to detect the blooms of this species. Not observed during rare plant surveys. **Low Potential**
Sticky Dudleya (*Dudleya viscida*)	Yes	1B.2	Perennial herb. Rocky soils in coastal bluff scrub, chaparral, cismontane woodland, and coastal scrub; 32-1804 ft. Blooming period: May - June	Primarily a coastal bluff species, localized in the Camp Pendleton area. No current or historical records from inland areas such as the BSA. **Low Potential**
Palmer's grapplinghook (*Harpagonella palmeri*)	Yes	4.2	Annual herb. Clay soils in chaparral, grasslands, coastal sage scrub; 65–3,132 ft. Blooming period: March–May	Approximately 300 individuals were detected in the northwestern portion of the survey area. **Present**.
Ramona horkelia (*Horkelia truncata*)	No	1B.3	Perennial herb. Clay and gabbroic soils in chaparral and cismontane woodland; 1,312–4,265 ft. Blooming period: May–June	Suitable gabbroic/granitic soils are limited within the survey area. Not observed during rare plant surveys. **Low Potential**.
San Diego marsh-elder (*Iva hayesiana*)	No	2B.2	Perennial herb. Marshes and swamps, wetland areas, and playas; 32–1,640 ft. Blooming period: April–October	Several individuals were detected in a riparian area in the western portion of the survey area. **Present**.
Small-flowered microseris (*Microseris douglasii* ssp. *platycarpha*)	No	4.2	Annual herb. Clay soils in cismontane woodland, coastal scrub, valley and foothill grassland, and vernal pools; 49–3,510 ft. Blooming period: March–May	Approximately 15 individuals were detected in the western portion of the survey area. **Present.**
Golden-rayed pentachaeta (*Pentachaeta aurea* ssp. *aurea*)	No	4.2	Annual herb. Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland, and valley and foothill grassland; 262–6,068 ft. Blooming period: March–July	Approximately 271 individuals were detected within the western portion of the survey area. **Present.**
Nuttall's scrub oak (*Quercus dumosa*)	No	1B.1	Perennial evergreen shrub. Sandy or clay loam in closed-cone coniferous forest, chaparral, and coastal scrub; 49–1,312 ft. Blooming period: February–August	Several large stands of this species were detected within the western portion of the survey area. **Present.**

TABLE 3.4-3 (CONTINUED)
POTENTIAL FOR SPECIAL-STATUS PLANT SPECIES TO OCCUR IN THE BSA

Species Name	Covered under the NCCP[a] (Yes/No)	Listing Status[b]	Habitat Requirements	Potential to Occur
Ashy spike-moss (*Selaginella cinerascens)*	No	4.1	Perennial rhizomatous herb. Chaparral and coastal sage scrub; 65–2,100 ft.	This species is found in several small patches on exposed rock outcrops and open soils in the western portion of the survey area. **Present.**

NOTES:
[a] SDG&E Subregional Natural Community Conservation Plan
[b] Explanation of State and federal listing codes:

Federal
FE = Endangered under the FESA
FT = Threatened under the FESA

State
SE = Endangered under the CESA
SR = Rare under the Native Plant Protection Act (NPPA)
ST = Threatened under CESA
FP = California Fully Protected
SSC = Species of Special Concern

Local
covered = covered species under the City/County MSCP
NEP = City of San Diego Narrow Endemic Plant

California Rare Plant Rank (CRPR)
1A = Plants presumed extinct in California
1B = Plants, rare, threatened, or endangered in California and elsewhere
2 = Plants rare, threatened, or endangered in California, but more common elsewhere
3 = Plants for which more information is need to determine status
4 = Plants of limited distribution – a watch list
0.1 = Seriously threatened in California
0.2 = Fairly threatened in California

SOURCES: CNPS, 2018; CDFW, 2018; ICF, 2017a, Appendix D, *Special-Status Plant and Wildlife Species Known or with Potential to Occur in the Survey Area*

The 13 special-status plant species detected within the BSA during spring 2016 special-status plant species surveys are: ashy spike-moss (*Selaginella cinerascens*), California adolphia (*Adolphia californica*), golden-rayed pentachaeta (*Pentachaeta aurea* ssp. *aurea*), Nuttall's scrub oak (*Quercus dumosa*), Orcutt's brodiaea (*Brodiaea orcuttii*), Palmer's grapplinghook (*Harpagonella palmeri*), San Diego marshelder (*Iva hayesiana*), San Diego sagewort (*Artemisia palmeri*), San Diego sunflower (*Bahiopsis laciniata*), small-flowered microseris (*Microseris douglasii* ssp. *platycarpha*), summer holly (*Comarostaphylis diversifolia* ssp. *diversifolia*), wart-stemmed ceanothus (*Ceanothus verrucosus*), and western dichondra (*Dichondra occidentalis*).

Other species addressed in Appendix D, *Special-Status Plant and Wildlife Species Known or with Potential to Occur in the Survey Area*, of IS/MND Appendix D.2 either were determined to have a low potential for occurrence or are not expected to occur within the BSA based on lack of observations during surveys and/or lack of suitable microhabitat conditions within the BSA. Species not expected to occur or with a low potential to occur will not be discussed further in this document; however, species, such as raptors, that could have nesting or foraging habitat overlapping the BSA are not excluded from this evaluation.

Preserve Areas

The BSA includes a number of preserve areas identified by the cities of Carlsbad, San Marcos, and Escondido, and unincorporated County of San Diego. This includes lands permanently protected as part of regional habitat conservation planning efforts and includes the County-owned Sage Hill Preserve, the Center for Natural Lands Management-managed University Commons, the Rancho Dorado Homeowners Association (HOA) Preserve, Carlsbad Raceway Open Space Preserve, San Elijo Hills Open Space, and the Carrillo Ranch Reserve. The Project would be located within SDG&E's ROW within these conserved lands.

Critical Habitat

The USFWS designates Critical Habitat for the survival and recovery of federally listed endangered and/or threatened species under the FESA (16 USC §1533 (a)(3)). Protected habitat includes areas for foraging, breeding, roosting, shelter, and movement or migration.

The USFWS has designated Critical Habitat for the coastal California gnatcatcher, San Diego fairy shrimp, spreading navarretia (*Navarretia fossalis*), and thread-leaved brodiaea (*Brodiaea filifolia*) in areas within 1 mile of the Project. The Project is located within Critical Habitat designated for coastal California gnatcatcher (ICF, 2017a). Approximately 151 acres of the BSA is within Critical Habitat for coastal California gnatcatcher.

Jurisdictional Wetlands and Waters

An aquatic resources mapping effort (Jurisdictional Delineation) was performed in 2017 to gather field data at potential wetland and non-wetland water resource areas under State or federal jurisdiction (ICF, 2017b; see in Appendix C of IS/MND Appendix D.2). A combination of pedestrian and vehicular surveys was conducted at all pole locations and Project access roads within the BSA.

A total of 157 aquatic features were evaluated for State and federal and jurisdiction within the BSA. Of these, 79 aquatic features were considered to be potentially State and federally jurisdictional. The 79 features fall into four categories: wetlands and riparian habitats, ephemeral streams, intermittent streams, and perennial streams. The remaining non-jurisdictional features consisted of swales, erosional features, and concrete ditches constructed as best management practices (BMPs) in upland areas.

Wetlands and/or riparian vegetation were identified within 26 of the 157 features in the BSA. The locations of these features are shown in the mapping included in the Jurisdictional Delineation Report (ICF, 2017b; see Figures 6b-01 to 6b-72). Wetlands and/or riparian vegetation were predominantly associated with intermittent and perennial streams and were dominated by black, red, and arroyo willows, mule fat, cattail (*Typha* sp.), and bulrush (*Schoenoplectus* sp.). Some wetlands held water at the time of the site visit.

CDFW-jurisdictional riparian areas included the wetland features above as well as Feature ID Nos. 067 and 091 (ICF, 2017b; Figures 6b-30 and 6b-47), which occurred within ephemeral streams and supported patches of mule fat, tamarisk (*Tamarix* sp.), and/or coast live oaks. A total of 59 ephemeral streams, four intermittent streams, and 12 perennial streams were identified within the BSA. These features had clear bed and bank, as well as multiple Ordinary High Water Mark (OHWM) indicators. OHWM indicators commonly included shelving, changes in particle size, water staining, changes in vegetation cover/species, and changes in slope from the active floodplain to the low terrace. The ephemeral streams in the BSA were variable in size and ranged from 1 to 15 feet wide measured from bank to bank. The majority of the intermittent streams identified throughout the Project alignment were associated with tributaries to San Marcos Creek and Escondido Creek. These features often supported riparian vegetation and wetlands.

Intermittent streams were typically identified in conjunction with perennial streams and were variable in size, ranging from 9 to 92 feet, measured from bank to bank. Perennial streams were associated with San Marcos Creek and associated unnamed tributaries. Each perennial stream contained flowing waters and evidence of inundation, and always supported wetlands and riparian vegetation. Also identified during the surveys were several non-jurisdictional features including erosional features, swales, and concrete v-ditches.

Wildlife Movement and Corridors

Wildlife corridors provide linkages (wildlife travel corridors) between otherwise fragmented patches of habitat caused by changes in vegetation communities, rugged terrain, and human disturbances. These linkages may be drainages, canyons, or ridgelines that provide access to foraging areas, water, breeding sites, and dispersal areas. These corridors provide cover and shelter during travel. Disturbance of wildlife corridors from human disturbance and development can cause harm to migrating species, cause species to exceed their population thresholds, and/or prevent healthy gene flow between populations.

Terrestrial wildlife species travel and migrate through both upland and riparian areas. Species that need protective cover from predators (e.g., mammals, reptiles, and smaller avian species) tend to migrate along natural drainages and riparian corridors. There are numerous riparian corridors in

the BSA, including multiple unnamed tributaries to San Marcos Creek and Escondido Creek. Riparian areas supply food, cover, and water for a large diversity of animals, and serve as migration routes and connectors between habitats for a variety of wildlife (Manci, 1989). The linear nature of riparian ecosystems provides distinct corridors that are important as migration and dispersal routes and as forested connectors between other types of habitats for wildlife. Woody vegetation must be present for many terrestrial species to find needed cover while traveling across otherwise open areas. Animals undergoing population dispersal use food and water from riparian areas during their movements. The value of waterway corridors for migratory movements are more accentuated in arid regions than in humid, more heavily vegetated areas (Montgomery, 1996). These areas may be used as migration corridors by a variety of species. Predator species such as bobcat (*Lynx rufus*) and mountain lion (*Puma concolor*) require larger portions of intact habitat, including interconnected upland and riparian systems such as these for viable home ranges and dispersal. Portions of the BSA do connect to these larger areas of connected upland and riparian systems.

The Project is located in the Pacific Flyway, which is a major north-south avian migratory corridor that extends along the West Coast from Alaska to Patagonia and links breeding grounds in the north to more southerly wintering areas. Over 60 percent of the species which are identified as neotropical migratory birds use riparian areas in the west as stopover areas during migration or for breeding habitat (Krueper, 1993). The riparian corridors in the BSA, including multiple unnamed tributaries to San Marcos Creek and Escondido Creek, function as important wildlife corridors for a variety of terrestrial and avian species.

3.4.2 Regulatory Setting

Federal

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) (7 USC §136, 16 USC §1531 et seq.) protects fish and wildlife that are listed as endangered or threatened by the USFWS. The FESA prohibits unauthorized "take" of endangered and threatened species, with take defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct." Harm has been defined to include significant habitat modification or degradation. For plants, this statute governs removing, possessing, maliciously damaging, or destroying any listed plant on federal land and removing, cutting, digging up, damaging, or destroying any listed plant on non-federal land in knowing violation of the law. Effects on critical habitat are considered by the USFWS when determining the degree to which a proposed action may adversely affect listed species.

Under Section 7 of the FESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, may adversely affect a threatened or endangered species, including plants, or its designated critical habitat. Through consultation and the issuance of a Biological Opinion, the Service may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity, provided the action would not jeopardize the continued existence of the species.

Under Section 10 of the FESA, an incidental take permit (ITP) may be issued to a non-federal entity if take is incidental to an otherwise lawful activity, the ITP application meets all issuance criteria, and a Habitat Conservation Plan is developed for the activity.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 (16 USC §§703–711) protects all migratory birds, including active nests and eggs, and prohibits killing, possessing, or trading in migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. Birds protected under the MBTA include all native waterfowl, shorebirds, hawks, eagles, owls, doves, and other common birds such as ravens, crows, sparrows, finches, swallows, and others.

Clean Water Act of 1972

The U.S. Army Corps of Engineers (USACE) administers Section 404 of the Clean Water Act of 1972 (33 USC §1251 et seq.), as amended. Section 404 regulates activities in wetlands and "other waters of the United States." Wetlands are a subset of "waters of the United States" that are defined in the Code of Federal Regulations as waters used for interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide; interstate waters including wetlands; all other waters—such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds—which could affect interstate or foreign commerce; water impoundments; tributaries of waters; territorial seas; and adjacent wetlands.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 USC §668) provides protection for both the bald eagle (*Haliaeetus leucocephalus*) and the golden eagle (*Aquila chrysaetos*) by prohibiting the take of either of these species, including their parts, nests or eggs. This Act defines take as to "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb" any bald or golden eagle. It is administered by the USFWS, which grants limited take authorizations for qualifying activities. Persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner any bald eagle… [or golden eagle], alive or dead, or any part, nest, or egg thereof" without prior approval are subject to criminal penalties.

State

California Environmental Quality Act

The California Environmental Quality Act is the regulatory framework by which California public agencies identify and mitigate significant environmental impacts. In addition to threatened and endangered species, a species not listed under the federal or State endangered species act may be considered rare if the species exists in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens. A species also may be considered rare if it is likely to become "threatened" as that term is used in the Federal Endangered Species Act (CEQA Guidelines §15380).

California Endangered Species Act

CESA (Fish and Game Code §2050 et seq.) generally parallels the main provisions of FESA. CDFW administers the listing of endangered and threatened species under CESA through Title 14, CCR Sections 670.2 and 670.5, and regulates these species under Fish and Game Code Section 2050 et seq. CDFW may allow take of such species through its issuance of permits pursuant to Fish and Game Code Section 2081, except for species designated "Fully Protected." Unlike its federal counterpart, CESA adopts a narrower definition of "take," and CESA's protections apply to candidate species that have been petitioned for listing. CESA defines "take" to "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." State lead agencies are required to consult with CDFW to ensure that any action undertaken would not jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat.

Native Plant Protection Act

The Native Plant Protection Act (Fish and Game Code §1913) is intended to preserve, protect, and enhance endangered or rare native plants in California. Vascular plants identified as rare or endangered by the CDFW and the CNPS, but which may have no designated status or protection under federal or State endangered species legislation, are defined according to a California Rare Plant Rank (CRPR) as follows:

- **Rank 1A:** Plants presumed extinct
- **Rank 1B:** Plants rare, threatened, or endangered in California and elsewhere
- **Rank 2:** Plants rare, threatened, or endangered in California, but more numerous elsewhere
- **Rank 3:** Plants about which more information is needed (a review list)
- **Rank 4:** Plants of limited distribution (a watch list)

Consistent with CEQA Guidelines Section 15380, plants designated with a CRPR of 1A, 1B, or 2 are considered to meet the criteria of endangered, rare, or threatened, and so are analyzed as "special-status species" in this document. Also pursuant to CEQA Guidelines Section 15380, CRPR 3 and 4 species deemed Locally Unusual and Significant may be analyzed under CEQA if there is sufficient information to assess potential impacts.

The Native Plant Protection Act exempts utility companies such as SDG&E from the requirement to obtain a "take" permit when only CESA-listed plants, and not habitat for CESA-listed wildlife species, would be affected by a project. Section 1913(b) states that "…the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, or other right-of-way by the owner of the land or his agent, or the performance by a public agency or a publicly or privately owned utility of its obligation to provide service to the public, shall not be restricted…because of the presence of rare or endangered plants, except as provided in subdivision (c)." Subdivision (c) requires the utility to provide CDFW 10 days' notice to salvage affected plants prior to construction.

Protection of Birds and Birds' Nests

Under Fish and Game Code Section 3503, it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided. Section 3503.5 makes it unlawful to take, possess or destroy birds of prey in the orders Falconiformes (e.g., bald eagle, golden eagle, Swainson's hawk, American kestrel, peregrine falcon, prairie falcon) and Strigiformes (e.g., burrowing owl, short-eared owl), or to take, possess, or destroy the nests or eggs of these birds. Disturbance that causes nest abandonment and/or reproductive failure is prohibited under the Fish and Game Code. This statute does not provide for the issuance of an ITP. Under California Fish and Game Code Section 3513, it is unlawful to take or possess any migratory non-game bird except as provided by rules and regulations adopted under the Migratory Bird Treaty Act.

Species of Special Concern

Species of Special Concern is a category conferred by CDFW on animal species that meet the State definition of threatened or endangered, but have not been formally listed (e.g., federally or State-listed species), or are considered at risk of qualifying for threatened or endangered status in the future based on known threats. The designation is considered an administrative classification only, but CEQA lead agencies frequently consider these "special-status" for the purposes of their analyses and therefore any species that can be shown to meet the definition of "rare" or "endangered" under CEQA Guidelines Section 15380 has been evaluated within the discussion below.

Fully Protected Species

California Fish and Game Code Sections 3511, 4700, 5050, and 5515 apply "fully protected" status to 37 birds, mammals, reptiles, amphibians, and fish. CDFW may authorize incidental "take" of Fully Protected species for necessary scientific research, or if the species is covered under an approved Natural Community Conservation Plan (NCCP) (Fish and Game Code §2835). Fully protected species with potential to occur in the BSA are shown in Table 3.4-2.

California Special-status Natural Communities

CDFW maintains a list of vegetation communities that are of limited distribution, either statewide or in a county or region. Communities of special concern are assigned a State rank, based on their degree of imperilment (as measured by rarity, threats, and ecological trends). These communities do not necessarily contain special-status species or their habitat. Most wetlands and riparian plant communities are considered special-status natural communities. As noted in Section 3.4.1, *Environmental Setting*, the BSA includes wetlands and riparian plant communities.

California Fish and Game Code Wetlands Regulations

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. The regulatory definition of a stream is a body of water that flows at least periodically or intermittently through a bed or channel having banks, and supports wildlife, fish, or other aquatic life. These activities are regulated under Fish and Game Code Section 1600 et seq. Requirements to protect the integrity of biological resources and water quality are often conditions of Streambed Alteration Agreements. As noted in Section 3.4.1, *Environmental Setting*, the BSA includes streams that may support wildlife, fish, or other aquatic life.

State and Regional Water Quality Control Boards

Responsibility for the protection of State waters resides with the State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs), including the San Diego Region RWQCB. "Waters of the state" are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (Water Code §13050(e)). All waters of the United States that are within the borders of California also are "waters of the state." The Federal government, through the USACE, may have concurrent jurisdiction over such waters, but California retains authority to regulate discharges. Any person discharging, or proposing to discharge, waste within any region that could affect "waters of the state" first must file a report of waste discharge with the appropriate RWQCB (Water Code §13260).

Local

It is noted that while local jurisdictions are preempted from regulating the Project pursuant to CPUC General Order No. 131-D, Section XIV.B, the plans, policies, and regulations described below are used in the impact analysis to determine whether any actual adverse environmental impact could occur as a result of a conflict with these plans, policies, and regulations.

County of San Diego

General Plan

The County of San Diego General Plan (2011) contains the following Conservation and Open Space (COS) policies regarding minimization of impacts and management of the regional preserve system:

> **Policy COS-1.2:** Minimize Impacts. Prohibit private development within established preserves. Minimize impacts within established preserves when the construction of public infrastructure is unavoidable.
>
> **Policy COS-1.3:** Management. Monitor, manage, and maintain the regional preserve system facilitating the survival of native species and the preservation of healthy populations of rare, threatened, or endangered species.

San Diego County Multiple Habitat Conservation Program

The Multiple Habitat Conservation Plan (MHCP) (2003) is a comprehensive conservation planning process that addresses the needs of multiple plant and animal species in northwestern San Diego County. The MHCP encompasses the cities of Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, Solana Beach, and Vista (i.e., "North County"). Its goal is to conserve approximately 19,000 acres of habitat for the protection of more than 80 rare, threatened, or endangered species. A specific policy of the MHCP is to direct land development to areas outside the Focused Planning Area in exchange for conservation inside, resulting in the creation of a preserve system. The MHCP preserve system is intended to protect viable populations of native plant and animal species and their habitats in perpetuity, while accommodating continued economic development and quality of life for residents of North County.

Portions of the Project would occur within limits of the following subarea plans:

- City of Carlsbad Subarea Plan, approved in 2004
- City of San Marcos Subarea Plan, still in draft form
- City of Escondido Subarea Plan, approved in 2001

Draft San Diego County North County Multiple Species Conservation Program

The draft North County Multiple Species Conservation Plan (MSCP) plan area encompasses land in and around the unincorporated communities of Bonsall, De Luz, Fallbrook, Harmony Grove, Rancho Santa Fe, Lilac, Pala, Pauma Valley, Rainbow, Ramona, Rincon Springs, Twin Oaks Valley, and Valley Center. The draft North County MSCP (2009) has designated preapproved mitigation areas (PAMAs), which are areas with high biological value in which conservation will be encouraged by providing mitigation ratios that favor developing outside of the PAMA and mitigating inside the PAMA. The unincorporated areas of the Project, primarily within the middle of the Project alignment, are within areas included in the draft North County MSCP. Some portions of the alignment occur within areas currently designated as PAMA in the draft North County MSCP. However, the Project would be located primarily within SDG&E's ROW. The new ROW required in Segment 1 does not contain any PAMA designated by the draft North County MSCP.

County of San Diego Tree Ordinance

The San Diego Regulatory Code of Ordinances, Title 7, Division 1, Chapter 5 regulates the planting, trimming, and removal of trees on County-owned property and County highways.

City of Carlsbad

General Plan

The City of Carlsbad General Plan (2013) Open Space and Conservation Element of the General Plan establishes goals and policies for the development of a comprehensive, connected open space system and for the protection and conservation of the City's natural and historic resources.

> **4-G.3:** Protect environmentally sensitive lands, wildlife habitats, and rare, threatened or endangered plant and animal communities.
>
> **4-G.4:** Promote conservation of hillsides and ridgelines.

Tree and Shrub Ordinance

The Carlsbad Municipal Code, Title 11, Chapter 11.12 regulates the planting, trimming, and removal of trees within the public right-of-way of the city.

City of San Marcos

General Plan

The City of San Marcos General Plan (2013) Conservation and Open Space Element of the General Plan identifies natural, cultural, historic, and open space resources and provides goals, policies, and programs related to open space and conservation.

Goal COS-1: Identify, protect, and enhance significant ecological and biological resources within San Marcos and its adaptive Sphere of Influence.

***Policy COS-1.1*:** Support the protection of biological resources through the establishment, restoration, and conservation of high quality habitat areas.

***Policy COS-1.2*:** Ensure that new development, including Capital Improvement Projects, maintain the biotic habitat value of riparian areas, oak woodlands, habitat linkages, and other sensitive biological habitats.

***Policy COS-1.3*:** Continue to work with other federal, State, regional, and local agencies to implement SANDAG's MHCP.

Tree Ordinance

Section 14.20.010 of the San Marcos Municipal Code prohibits trimming, damaging, or removing trees, hedges or large shrubs from any public property or public right-of-way unless a permit is first obtained.

City of Vista

General Plan

The City of Vista General Plan (2012) contains the following Resource Conservation Strategy (RCS) goals regarding protection and conservation of resources within the City:

RCS Goal 5: Preserve and protect, to the extent practicable, the range of natural biological communities and species native to the City and region; and conserve viable populations of endangered, threatened, and key sensitive species and their habitats.

RCS Goal 6: Implement the provisions of the regional Multiple Habitat Conservation Plan (MHCP).

Tree Ordinance

The Vista Municipal Code, Chapter 12.04, prohibits trimming, damaging, or removing trees, shrubs, or flowers from any public place within the city unless a permit is first obtained

City of Escondido

General Plan

The City of Escondido General Plan Resource Conservation Chapter contains goals related to resource conservation policies intended to protect, promote, and preserve a vibrant community:

Goal 1: Preservation and enhancement of Escondido's open spaces and significant biological resources as components of a sustainable community.

***Policy 1.4*:** Coordinate the planning and development of the overall open space system with other public facilities and services within Escondido.

***Policy 1.5*:** Participate in the planning and preservation of an interconnected biological resources and open space plan with appropriate federal, state, and local agencies that enhances the viability of the regional ecosystem.

***Policy 1.6*:** Preserve and protect significant wetlands, riparian, and woodland habitats as well as rare, threatened or endangered plants and animals and their habitats through avoidance. If avoidance is not possible, require mitigation of resources either on- or off-site at ratios consistent with State and federal regulations, and in coordination with those agencies having jurisdiction over such resources.

***Policy 1.7*:** Requite that a qualified professional conduct a survey for proposed development project located in areas potentially containing significant biological resources to determine their presence and significance. This shall address any flora or fauna of rare and/or endangered status, declining species, species and habitat types of unique or limited distribution, and/or visually prominent vegetation.

***Policy 1.8*:** Require that proposed development projects implement appropriate measure to minimize potential adverse impacts on sensitive habitat areas, such as buffering and setbacks. In the event that significant biological resources are adversely affected, consult with appropriate State and federal agencies to determine adequate mitigation or replacement of the resource.

***Policy 1.9*:** Encourage proposed development projects to minimize the removal of significant stands of trees unless needed to protect public safety and to limit tree removal to the minimum amount necessary to assure continuity of functionality of building spaces.

***Policy 1.10*:** Prohibit any activities in riparian areas other than those permitted by appropriate agencies to protect those resources.

***Policy 1.11*:** Construct appropriate barriers to be maintained by property owners or homeowners' associations that restrict access to areas containing sensitive biological resources.

Tree Ordinance

The Escondido Municipal Code, Section 18-143, prohibits trimming, damaging, or removing trees, shrubs, or ornamental plants growing or located upon any public street, sidewalk, recreational area or public way unless a permit is first obtained.

Permitting Agreements

SDG&E Subregional NCCP

In December 1995, the USFWS and CDFW approved the SDG&E Subregional NCCP (SDG&E, 1995; included in this IS/MND as Appendix D.3) which was developed for the purpose of minimizing potential impacts on species and habitat associated with SDG&E's ongoing installation, use, maintenance, and repair of its gas and electric systems. The NCCP was developed by following the multiple species and habitat conservation planning approach. Also included in the NCCP are guidelines pertaining to the typical expansion of SDG&E's systems throughout much of its existing service territory.

The SDG&E Subregional NCCP includes avoidance and minimization measures and 61 Operational Protocols that apply to construction, as well as to operations and maintenance activities. In agreeing to implement the NCCP, SDG&E has committed to implementing these

measures for all its activities related to the siting, design, installation, construction, use, maintenance, repair, and removal of its facilities within the Subregional NCCP area. Those that would apply to this Project are identified and discussed, as appropriate, in the following impact analyses.

In approving the SDG&E Subregional NCCP, the USFWS and CDFW determined that implementation of the avoidance and minimization measures and Operational Protocols would avoid potential impacts and provide appropriate mitigation where such impacts are unavoidable. The agencies also determined that the NCCP ensured the protection and conservation of federal and State listed species and covered species. Thus, as a part of the NCCP, SDG&E was issued an ITP (Permit PRT-809637) in 1995 by the USFWS and CDFW for 110 covered species. The 1995 permit is subject to SDG&E's compliance with its Subregional NCCP and a 400-acre cap on habitat impacts. SDG&E developed a Low-Effect HCP and applied for a 5-year ITP for 15 animal species and 22 plant species through the USFWS pursuant to FESA Section 10(1)(1)(B) in late 2016. The Low-Effect HCP is designed to support the continuation of activities covered by the NCCP. Under the 2017 HCP, SDG&E would continue to apply all of the conservation efforts, mitigation measures, and Operational Protocols implemented under the NCCP. The 2017 HCP, as approved under Permit No. TE26660C-0, authorized in March 2017, would allow a maximum of 60 acres of impact over a 5-year permit term. SDG&E intends to utilize mitigation credits authorized under the 2017 HCP ITP to mitigate for impacts on sensitive habitats for the Project.

The Project would be located within the area where SDG&E’s utility operations are governed by the NCCP. SDG&E has indicated that it would seek incidental take coverage for temporary and permanent impacts to natural habitat resulting from construction of the Project through the NCCP, and may rely on the mitigation bank associated with the NCCP to fulfill the mitigation requirements for those impacts (ICF, 2017a). SDG&E proposes to authorize take under the 2017 HCP. For operation and maintenance of the Project, SDG&E would implement the NCCP to comply with the FESA and CESA (SDG&E, 1995; ICF, 2017a).

3.4.3 Applicant Proposed Measures

SDG&E has proposed the following Applicant Proposed Measures (APMs) to address impacts to biological resources attributable to Project construction, operations, and maintenance. Based on the following impact analyses, in instances where certain APMs were found not to adequately reduce an impact to a less-than-significant level, those APMs have been superseded by mitigation measures put forth by the CPUC.

APM BIO-1: SDG&E will conduct all construction and operation and maintenance activities in accordance with NCCP Operational Protocols to avoid and minimize impacts on biological resources.

APM BIO-2: All earth-moving equipment will be free of mud and vegetative material before being mobilized onto work areas associated with the Project.

APM BIO-3: Except when not feasible due to physical or safety constraints, all Project construction vehicle movement will be restricted to the Project work areas, existing roads, and access roads constructed as a part of the Project and mapped by SDG&E in advance of

construction. Approval from a biological monitor will be obtained prior to vehicle travel off of existing access roads.

APM BIO-4: Civil and land survey personnel will keep survey vehicles on existing roads. During Project surveying activities, brush clearing for footpaths, line-of-sight cutting, and land surveying panel point placement in sensitive habitat prior approval will be required from the Project's biological monitor. Hiking off roads or paths for survey data collection will be allowed year-round as long as all of the other applicable APMs are met.

APM BIO-5: Prior to the start of construction, the boundaries of sensitive plant populations that require protection will be delineated with clearly visible flagging or fencing by a qualified biologist. The flagging and/or fencing will be maintained in place for the duration of construction. Flagged and fenced areas will be avoided to the extent practicable during construction activities in that area. If impacts on sensitive plant species are unavoidable, SDG&E will perform soil and plant salvage activities to enhance recovery of these special-status plants, consistent with the provisions in the Enhancement Section 7.2.1 of the NCCP. These include the stockpiling of native soil in the area where Nuttall's scrub oak and wart-stemmed ceanothus occur and top soil replacement after construction. Quality assurances and success criteria milestones for the restoration area as a whole will conform to the standards provided in Enhancement Section 7.2.1 of the NCCP.

APM BIO-6: ***Coastal California Gnatcatcher.*** Prior to construction, SDG&E shall retain a qualified biologist to conduct surveys for the coastal California gnatcatcher in suitable habitat, to determine if any active nests are within or in the immediate vicinity of proposed construction activities. If feasible, SDG&E will avoid construction during the peak breeding season (February 15 – August 31) for coastal California gnatcatcher and migratory birds. When it is not feasible to avoid trimming or removal of vegetation or during the peak breeding season, SDG&E will perform a site survey in the area where the work is to occur. Trimming or removal of vegetation during the peak breeding season will require a preconstruction survey by a qualified biologist to confirm that active nests will not be affected. This survey will be performed to determine the presence or absence of nesting birds. If an active nest (i.e., containing eggs or young) is identified within the construction area during the survey, work will be temporarily halted and redirected away from the site. The qualified biologist in the field will determine a no-work buffer zone around the nest of sufficient size and dimensions that construction activities will not result in disturbance or direct removal of the active nest, or will not cause a breeding bird to abandon its nest. If the nesting and/or breeding activities are being conducted by a federal or State-listed species, SDG&E will consult with the USFWS and CDFW as necessary. Monitoring of the nest will continue until the birds have fledged or construction is no longer occurring on site.

Migratory Birds. Trimming or removal of vegetation during the peak breeding season (February 15 to August 31) will require a pre-construction survey by a qualified biologist to confirm that active nests will not be affected. If an active nest is detected within the construction area during the survey, work will be temporarily halted and redirected away from the site. The qualified biologist in the field will determine a no-work buffer zone around the nest of sufficient size and dimensions that construction activities will not result in disturbance or direct removal of the active nest, or will not cause a breeding bird to abandon its nest.

APM BIO-7: If a raptor nest is observed during preconstruction surveys, a qualified biologist would determine if it is active. If the nest is determined to be active, the biological monitor

would monitor the nest to ensure nesting activities and/or breeding activities are not substantially adversely affected. If the biological monitor determines that Project activities are disturbing or disrupting nesting and/or breeding activities, the monitor will make recommendations to reduce the noise and/or disturbance in the vicinity of the nest.

APM BIO-8: A biological monitor will be present during all ground-disturbing and vegetation removal activities. Immediately prior to initial ground-disturbing activities and/or vegetation removal, the biological monitor will survey the site to ensure that no special-status species will be impacted.

APM BIO-9: Wherever possible, vegetation will be left in place or mowed, instead of grubbed, to avoid excessive root damage and to allow for regrowth and to minimize soil erosion.

3.4.4 Environmental Impacts and Mitigation Measures

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service: *LESS THAN SIGNIFICANT WITH MITIGATION INCORPORTATED.*

Construction

Special-Status Plant Species

Based on the results of the special-status plant species surveys, 13 special-status plant species are known to occur within the BSA, including ashy spike-moss, California adolphia, golden-rayed pentachaeta, Nuttall's scrub oak, Orcutt's brodiaea, Palmer's grapplinghook, San Diego marsh-elder, San Diego sagewort, San Diego sunflower, small-flowered microseris, summer holly, wart-stemmed ceanothus, and western dichondra. Of these, 11 species—ashy spike-moss, California adolphia, golden-rayed pentachaeta, Orcutt's brodiaea, Palmer's grapplinghook, San Diego marsh-elder, San Diego sagewort, San Diego sunflower, small-flowered microseris, summer holly, and western dichondra—occur outside of all proposed permanent and temporary impact areas. Impacts on these species would not occur. The Project would result in direct permanent impacts on the remaining two species: Nuttall's scrub oak and wart-stemmed ceanothus, as summarized in **Table 3.4-4**.

TABLE 3.4-4
IMPACTS ON SPECIAL-STATUS PLANT SPECIES

Species	CRPR Listing Status	Occupied Area Mapped in the BSA (acres)	Area of Temporary Impact (acre) (percent of total)	Area of Permanent Impact (acre) (percent of total)	Area of Total Impacts (acre) (percent of total)
Nuttall's scrub oak	1B.1	26.0	0.06 (0.2 %)	0.11 (0.4 %)	0.17 (0.7%)
Wart-stemmed ceanothus	2B.2	514.7	0.68 (<0.1%)	0.27 (0.1 %)	0.95 (0.1%)

SOURCE: ICF, 2017a

Indirect temporary impacts on these plant species within and near construction areas could result from construction-related runoff, dust, sedimentation, and erosion, which have the potential to alter site conditions and degrade the quality of the habitat through the introduction of noxious weeds.

To minimize construction impacts on special-status plants, SDG&E would use a project biologist in accordance with NCCP Operational Protocol #13, who would flag occurrences of special-status plants outside of impact areas for avoidance in accordance with Operational Protocol #14. The Environmental Surveyor would also check that flagged areas of these special-status plants have been avoided and would document that compliance. In addition, SDG&E would implement Operational Protocol #39 to minimize fugitive dust by regularly watering construction areas and limiting onsite vehicle speeds to 15 miles per hour (mph).

Temporary impacts potentially resulting from erosion and sedimentation would be minimized through implementation of Operational Protocols #16, #19, and #20. Operational Protocol #16 requires that SDG&E design and implement maintenance, repair and construction activities to minimize new disturbance, erosion on manufactured and other slopes, and off-site degradation from accelerated sedimentation, and to reduce maintenance and repair costs. Operational Protocol #19 requires SDG&E to minimize erosion on access roads and other locations with water bars made from mounds of soil, or berms, shaped to direct flow and prevent erosion. Operational Protocol #20 requires SDG&E to use technological design and construction techniques to avoid erosion and siltation from construction into creeks, streams, or other waterways.

SDG&E would further avoid or reduce impacts on special-status plants by reducing impacts associated with the spread of noxious weeds in construction areas. APM BIO-2 requires that earth-moving equipment be free of mud and vegetative material before being mobilized to the BSA. APM BIO-3 restricts Project construction vehicle movement to the Project work area and existing roads to minimize the potential for collecting and spreading noxious weeds.

APM BIO-4 requires land surveying activities in sensitive habitat obtain prior approval from the Project's biological monitor. APM BIO-5 would reduce impacts on sensitive plant populations by requiring fencing and avoidance, and soil and plant salvage in accordance with habitat enhancement procedures in NCCP Section 7.2 where effects cannot be avoided. To further minimize impacts on special-status plant species, APMs BIO-8 and BIO-9 would be implemented, which would require a biological monitor to be present during all ground disturbing and vegetation removal activities and to survey the site immediately prior to initial ground-disturbing activities and/or vegetation removal to ensure that no special-status species would be impacted and that, wherever possible, vegetation would be left in place or mowed, instead of grubbed, to avoid excessive root damage and to allow for regrowth and to minimize soil erosion.

As noted in the discussion of the NCCP in Section 3.4.2, *Regulatory Setting*, in approving the NCCP, USFWS and CDFW determined that implementation of avoidance and minimization measures and Operational Protocols would avoid or reduce potential impacts on special-status plant and wildlife species and provide appropriate mitigation where impacts occur. However, there are currently no assurances that sufficient take or mitigation credits provided under the NCCP would be available at the time Project construction would commence or if additional take

authorization would be required by the wildlife agencies. If the take of listed species goes beyond the available take authorized under the NCCP, this additional take and/or adverse modification of habitat could result in a significant impact beyond what is covered under the NCCP. Therefore, in the event that there are not sufficient take or mitigation credits provided under the NCCP at the time of Project construction, **Mitigation Measure BIO-1** is proposed to avoid and reduce impacts. Implementation of this mitigation measure would ensure that the Project would comply with all regulatory requirements addressing special-status plant species, reducing this impact to less than significant.

> **Mitigation Measure BIO-1: Project Compliance with the Federal and California Endangered Species Acts.** Prior to approval of the Notice to Proceed (NTP), SDG&E shall provide CPUC with a written commitment to implement its 1995 Subregional Natural Community Conservation Plan (NCCP) or 2017 Low Effect HCP (LEHCP), including proof that sufficient mitigation/take credits are assigned to the Project to cover potential impacts on all special-status plant and animal species present in the BSA or having moderate or high potential to occur in the biological study area (BSA).
>
> If there are not sufficient mitigation/take credits available in the NCCP or LEHCP at the time of NTP approval, then prior to the commencement of Project construction, SDG&E shall secure take authorization from the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW), as appropriate, for all federal and State-listed special-status plant and animal species present in the BSA or having moderate or high potential to occur in the BSA that are impacted by the Project. The conditions of these authorizations shall be equally or more effective than the protocols and practices included in the NCCP/LEHCP. SDG&E shall provide the CPUC with copies of these authorizations to show that compliance with permitting conditions would be equal to or more effective than the approved NCCP/LEHCP protocols and practices. SDG&E shall also submit to CPUC any monitoring reports, incident reports, etc., required by USFWS and/or CDFW when submitted to those agencies.
>
> **Significance after Mitigation:** There is no documented assurance that there would be sufficient mitigation/take credits available to the Project under the current NCCP at the time of construction to address impacts on federal and State-listed sensitive plant species. With implementation of Mitigation Measure BIO-1, compliance with the requirements of the 1995 NCCP and the 2017 HCP, or with equally or more effective conditions imposed by new authorizations, would be required. Therefore, impacts on the special-status plant species attributable to the Project would be reduced to less than significant.

Special-Status Invertebrate and Amphibian Species

No special-status invertebrate or amphibian species were observed during site surveys or identified through the literature review as having high potential to occur within the BSA. In addition, no suitable habitat for special-status invertebrate or amphibian species is present in the BSA. Therefore, no impacts on special-status invertebrate or amphibian species would occur during construction.

Special-Status Reptile Species

Six special-status reptile species have a moderate or high potential to occur in the BSA: coastal whiptail, coast horned lizard, Coronado skink, coast patch-nosed snake, orange-throat whiptail,

and two-striped garter snake. Construction activities could directly and permanently impact these six special-status reptile species through the permanent removal of suitable foraging and breeding habitat, such as Diegan coastal sage scrub and nonnative grassland. Permanent impacts on habitat could be caused by the grading, trenching, and installation of the permanent placement of steel poles and structure foundations. Other permanent direct impacts on special-status reptiles could occur as a result of vehicular or excavation equipment strikes. Temporary direct impacts may result from the removal of upland habitat, such as Diegan coastal sage scrub and nonnative grassland, due to grading and trenching for the installation of the poles, and short-term disturbances to their foraging and breeding behaviors that result from implementation of the Project.

Temporary indirect impacts could occur due to construction noise and ground vibration, as animals may be deterred from inhabiting or foraging in areas near such activities. Additional indirect impacts could occur from construction-related dust, sedimentation, and erosion, which have the potential to alter site conditions and the use of the site by reptile species. In addition, temporary impacts associated with nighttime construction activities may result in temporary avoidance of construction areas due to lighting. Furthermore, the Project may result in impacts on these species if noxious weed seeds are spread within occupied habitats during construction; if allowed to establish and spread, these weeds could alter the habitat for these species.

Impacts on special-status reptile habitat associated with approximately 1.1 acres of permanent impact on native vegetation communities and 1.1 acres of temporary impact on native vegetation communities (Table 3.4-5) would be relatively small compared to the habitat that is available and contiguous with impacted habitat regionally, and the 1.1 acres of permanent impacts would not result in the long-term decline or threaten the long-term survival of any of these species. Therefore, permanent and temporary direct and indirect impacts on these species from the Project would be less than significant.

SDG&E would implement all applicable measures outlined in SDG&E Subregional NCCP, Section 7.1, Operational Protocols, to prevent potential impacts on special-status reptile species. In addition, implementation of the measures outlined in NCCP Section 7.2, Habitat Enhancement Measures, would further reduce impacts on habitat for special-status reptile species. SDG&E would implement Operational Protocol #1, which requires construction vehicles to maintain a 15 mph speed limit, reducing the potential for collisions, as well as Operational Protocol #11, in which all employees receive environmental training on special-status species potentially occurring within the Project footprint. Operational Protocol #38 requires that all steep-walled trenches be inspected twice daily to protect against wildlife entrapment. If wildlife is located in the excavation, the project biologist would remove the animal if they cannot escape unimpeded. SDG&E also would implement Operational Protocols #2, #4, #5, #7, and #10, which prohibit construction personnel from conducting activities that may harm or harass special-status wildlife species (i.e., hunting, feeding, harassing, relocating, and collecting wildlife).

SDG&E would reduce impacts associated with the spread of noxious weeds in the construction areas by conforming to the habitat reclamation procedures outlined in NCCP Section 7.2. Implementation of NCCP Section 7.1 (including the NCCP Operational Protocols) and Section 7.2

would ensure potential impacts on special-status reptiles would be less than significant. SDG&E would further minimize the impact by implementing APMs BIO-1 through BIO-5, BIO-8, and BIO-9, as discussed in above under "Special-Status Plant Species." These APMs would require a biological monitor to be present during all ground-disturbing and vegetation removal activities and to survey the site immediately prior to initial ground-disturbing activities and/or vegetation removal to ensure that no special-status reptile species would be impacted and that, wherever possible, vegetation would be left in place or mowed, instead of grubbed, to avoid impacts on special-status reptile species.

As noted in the discussion of the NCCP in Section 3.4.2., *Regulatory Setting*, in approving the NCCP, USFWS and CDFW determined that implementation of avoidance and minimization measures and Operational Protocols would avoid or reduce potential impacts on special-status plant and wildlife species and provide appropriate mitigation where impacts occur. However, there are currently no assurances that sufficient take or mitigation credits provided under the NCCP would be available at the time Project construction would commence. If the take of listed species goes beyond the available take authorized under the NCCP, this additional take and/or adverse modification of habitat could result in a significant impact beyond what is covered under the NCCP. Therefore, in the event that there are not sufficient take or mitigation credits provided under the NCCP at the time of Project construction, **Mitigation Measure BIO-1** is proposed to avoid or reduce impacts. Implementation of this mitigation measure would ensure that the Project would comply with all regulatory requirements addressing special-status reptile species, reducing this impact to less than significant.

> **Mitigation Measure BIO-1: Project Compliance with the Federal and California Endangered Species Acts.** See full text of this Mitigation Measure under the analysis of *Special-Status Plant Species*, above.
>
> **Significance after Mitigation:** There is no documented assurance that there would be sufficient mitigation/take credits available to the Project under the current NCCP at the time of its construction to address impacts on federal and/or State-listed sensitive reptile species. With implementation of Mitigation Measure BIO-1, compliance with the federal and California Endangered Species Acts would be required in the absence of sufficient NCCP credits. Therefore, impacts on the special-status reptile species attributable to the Project would be reduced to less than significant.

Special-Status Avian Species and Other Nesting Avian Species

Nine special-status avian species are known to occur or have a potential to occur within the BSA: Bell's sage sparrow, California horned lark, coastal California gnatcatcher, Cooper's hawk, least Bell's vireo, southern California rufous-crowned sparrow, white-tailed kite, yellow-breasted chat, and yellow warbler. These special-status species and other nesting birds protected by the MBTA and the California Fish and Game Code could be directly permanently impacted by the removal of habitat used for foraging and nesting by avian species, as well as by other activities related to Project construction, such as conflicts with construction equipment. Permanent direct impacts on individuals may occur from vehicular strikes or excavation equipment strikes. Vehicular collisions occur most frequently during the vegetation clearing stage of construction, and involve nestlings and recently fledged young that cannot safely avoid equipment. In addition,

electrocution of avian species can occur from wing contact with two conductors, as avian species perching, landing, or taking off from a utility pole can complete the electrical circuit. Avian electrocutions can also occur through simultaneous contact with energized phase conductors and other equipment or simultaneous contact with an energized wire and a grounded wire. Electrocution of avian species poses a greater potential hazard to larger birds, such as raptors, because their body sizes and wing spans are large enough to bridge the distance between the conductor wires and, thus, complete the electrical circuit. Project activities that could temporarily directly affect special-status avian species habitat include general construction-related activities, including vegetation trimming and vegetation removal. Vegetation trimming and vegetation removal could result in temporary removal of nesting or foraging habitat and/or the removal of some food sources during construction.

Potential indirect impacts on avian species include those resulting from decreased suitability of habitat in the BSA due to various factors such as increased noise from construction activities and vehicles, vehicle emissions, helicopter use, dust, and other human activity. Noise from construction activities can affect avian species in multiple ways, such as depressing breeding success by acoustical masking, interfering with intra-specific communication, and interfering with detection of predators. Construction activities could disrupt breeding and foraging activities, and could prevent birds from attending to nests or could cause birds to flush from their nests, endangering eggs and chicks. Dust could have an adverse effect on the health of chicks and adults as well as on the viability and presence of prey insects and on the overall health of vegetation. Temporary indirect impacts on all avian species include the disruption of nesting behavior due to a temporary increase in the presence of humans, as well as noise from construction equipment and vehicles. Temporary impacts may also result from unauthorized actions from construction personnel, such as hunting or feeding of avian species. Night lighting associated with construction activities may also temporarily affect avian species roosting and foraging behavior, especially for avian species that are active after dark. As part of Operational Protocol #35, SDG&E would conduct biological monitoring during construction if such is recommended in the pre-activity survey report.

Indirect impacts on avian species may also occur if oak trees are killed as a result of construction personnel parking under oak driplines; the risk of damaging oak trees would be reduced through implementation of Operational Protocol #6, which prohibits construction personnel from parking or driving under oak trees.

SDG&E would further avoid or reduce impacts on avian species by implementing APMs BIO-1 through APM BIO-5, which keep work confined to existing roads and Project work areas and outside of nesting and foraging habitat. Further, APM BIO-6 would require avoidance of construction during the nesting or breeding season and would require a nesting survey in the area where the work is to occur when such avoidance is not feasible to determine the presence or absence of nesting birds protected under the MBTA. Upon discovery of nesting federal or State-listed species, SDG&E would consult with the USFWS and CDFW as necessary. Per APM BIO-7, if a raptor nest is observed during preconstruction surveys, a qualified biologist would determine if it is active. If the qualified biologist determines that Project activities are disturbing

or disrupting nesting and/or breeding activities, the qualified biologist would implement measures described in APM BIO-7 to reduce the noise and/or disturbance in the vicinity of the nest.

Impacts associated with the spread of noxious weeds in the construction areas would be addressed by conforming to the habitat reclamation procedures outlined in NCCP Section 7.2. In addition, temporary lighting at staging and storage areas would be directed on site and away from any sensitive receptors as part of the NCCP Operational Protocols. The power line structures would be constructed in compliance with the Avian Power Line Interaction Committee (APLIC) Suggested Practices for Avian Protection on Power Lines (Edison Electric Institute, et al, 2012). The APLIC standards are in addition to SDG&E's current construction standard, which includes increased phase spacing and cover-ups to reduce avian mortality from electrocution. Therefore, the potential for avian electrocution would be reduced to a less-than-significant level.

Additional avian species-specific detail is provided below.

Coastal California Gnatcatcher. The Project could have permanent and temporary impacts on the coastal California gnatcatcher, which is known to occur within the BSA based on results of the focused, protocol-level, breeding season surveys conducted in spring 2016. Additionally, the Project would result in 0.7 acre of direct permanent impacts and 3.4 acres of direct temporary impacts within Critical Habitat for coastal California gnatcatcher at multiple locations throughout the alignment due to vegetation clearing and ground disturbance. The Project would result in the permanent loss of 0.8 acre of coastal sage scrub habitat which would be mitigated for in accordance with acreage requirements stipulated in NCCP Table 7.4 for new facilities, as authorized through the revised 5-year HCP ITP. With implementation of the SDG&E Subregional NCCP Operational Protocols (see above), these impacts on the coastal California gnatcatcher would be less than significant.

Least Bell's Vireo. The Project could have temporary impacts on least Bell's vireo, which is known to occur within the BSA based on results of the focused, protocol-level, breeding season surveys conducted in spring 2016. The Project has been designed to avoid impacts on the riparian vegetation communities that may support the species. With implementation of the SDG&E Subregional NCCP Operational Protocols (see above), these impacts on least Bell's vireo would be less than significant.

All Other Special-Status Avian Species. The Project could cause impacts on suitable habitat for the remaining special-status avian species—Cooper's hawk, Southern California rufous-crowned sparrow, California horned lark, white-tailed kite, yellow breasted chat, and yellow warbler. Three of these species—the white-tailed kite, yellow-breasted chat, and yellow warbler—are typically associated with riparian areas. All other sensitive upland vegetation that may be used by the remaining special-status avian species also would be mitigated in the same manner. For all avian species, SDG&E would implement all applicable measures outlined in SDG&E Subregional NCCP, Section 7.1, Operational Protocols, to avoid and/or minimize potential impacts on special-status avian species. Avoidance and minimization measures from the NCCP would address impacts on non-NCCP covered species such as white-tailed kite, which have similar ecological requirements as NCCP-covered raptors.

Implementation of NCCP Section 7.1 (including the NCCP Operational Protocols) and Section 7.2, as well as APMs BIO-1 through BIO-9, would occur as part of the Project and would avoid or minimize most impacts on special-status avian species with the exception of helicopter impacts. Significant impacts related to helicopter use are described below.

As noted in the discussion of the NCCP in Section 3.4.2, *Regulatory Setting*, in approving the NCCP, USFWS and CDFW determined that implementation of avoidance and minimization measures and Operational Protocols would avoid or reduce potential impacts on special-status plant and wildlife species and provide appropriate mitigation where impacts occur. However, there are currently no assurances that sufficient take or mitigation credits provided under the NCCP would be available at the time Project construction would commence. If the take of listed species goes beyond the available take authorized under the NCCP, this additional take and/or adverse modification of habitat could result in a significant impact beyond what is covered under the NCCP. Therefore, in the event that there are not sufficient take or mitigation credits provided under the NCCP at the time of Project construction, **Mitigation Measure BIO-1** is proposed to avoid and reduce impacts. Implementation of this mitigation measure would ensure that the Project would comply with all regulatory requirements addressing special-status avian species, reducing this impact to less than significant.

Additionally, although APM BIO-7 requires avoidance measures for raptor nests, implementation of APM BIO-7 would not avoid or mitigate impacts on avian species resulting from potential helicopter use to the maximum extent feasible because it does not prohibit the use of helicopters or other potential disturbances within proximity of an active nest, and helicopter pass-bys may result in adverse impacts that could not be avoided through the monitoring protocol proposed under APM BIO-7. **Mitigation Measure BIO-2** is proposed to avoid or minimize potential helicopter impacts not reduced to a less-than-significant level by APM BIO-7. Implementation of these mitigation measures would ensure that the Project would comply with all regulatory requirements addressing special-status avian species.

> **Mitigation Measure BIO-1: Project Compliance with the Federal and California Endangered Species Acts.** See full text of this Mitigation Measure under the analysis of *Special-Status Plant Species*, above.
>
> **Mitigation Measure BIO-2: Establishment of Cylindrical Construction Buffers.** The biological monitor shall establish a three-dimensional cylinder-shaped buffer around active nests that have the potential to be affected by helicopter use or ground-based activities associated with helicopter use. A vertical buffer shall extend at least 300 feet vertically above the location of the nest and at least 300 feet horizontally for passerines (or 500 feet vertically and horizontally for raptors and 500 feet vertically and 0.5 mile horizontally for white-tailed kite). The biological monitor and SDG&E project manager shall monitor the helicopter tracks (i.e., flight patterns, durations) daily to ensure compliance with these established buffers. This buffer assumes the helicopter activities are temporary or infrequent in nature (no longer than one minute [e.g., pass-by] or visit the site once in a day) If helicopter work occurs in the vicinity of an active nest for an extended period of time, the biological monitor may determine, based on the nature of the work and nest monitoring observations, that the buffer is insufficient for the nest and adjust the buffer distance appropriately.

Significance after Mitigation: There is no documented assurance that there would be sufficient mitigation/take credits available to the Project under the current NCCP at the time of its construction to address impacts on federal and/or State-listed sensitive avian species. With implementation of Mitigation Measure BIO-1, compliance with the federal and California Endangered Species Acts would be required in absence of sufficient NCCP credits. Avoidance of impacts resulting from helicopter use is not currently covered within NCCP Section 7.1 Operational Protocols or the APMs proposed for this Project. With implementation of Mitigation Measure BIO-2, impacts of helicopter use on the special-status avian and other nesting avian species would be sufficiently reduced to avoid disruption to nesting avian species. Therefore, impacts on special-status avian species would be reduced to less than significant.

Special-Status Mammal Species

Five special-status mammal species have a moderate or high potential to occur within the BSA based on the presence of CNDDB occurrences nearby and suitable habitat within the BSA: American badger, northwestern San Diego pocket mouse, San Diego black-tailed jackrabbit, San Diego desert woodrat, and mule deer.

The Project could result in both permanent and temporary impacts on these special-status mammal species. Direct permanent impacts would occur as a result of removal of vegetation for the permanent placement of steel poles within their habitat, specifically within the sensitive natural communities identified in Table 3.4-5, Impacts on Vegetation Communities. Permanent impacts may include the loss of suitable foraging habitat resulting from removal of vegetation communities that have the potential to support these species. The Project may also result in impacts on special-status mammal species if non-native noxious weed seeds are spread within occupied habitats during construction. If allowed to establish and spread, these noxious weeds could alter the habitat for these species. Power lines and other Project-related structures provide potential perching opportunities for raptor species, which can increase the potential for predation of wildlife, including special-status mammal species, by raptors.

Temporary direct impacts may result from construction noise, lighting, groundborne vibration, and other construction-related short-term disturbances that could temporarily disrupt their typical daily foraging activities. Temporary indirect impacts on special-status mammal species include the temporary loss of habitat from vegetation trimming resulting from Project construction activities.

Because the Project involves installing an additional power line in Segment 2 within SDG&E ROW, the extent of predation on special-status mammals would increase slightly as a result of additional structures available for predators like raptors. Because these species are most active at night, temporary impacts associated with nighttime construction activities may result in temporary avoidance of construction areas due to lighting, temporarily reducing the animal's ability to forage at night. These temporary impacts would be short-term and located in only a few work areas at a time during construction of the Project. None are expected to result in a long-term decline of any special-status mammal species.

SDG&E would implement all applicable measures outlined in SDG&E Subregional NCCP, Section 7.1, Operational Protocols, to prevent potential impacts on special-status mammal species. These measures include, but are not limited to, restricting vehicle access to existing roads to the extent feasible, avoiding vehicle collisions with wildlife species to the extent practicable, conducting preconstruction surveys in suitable habitat, restricting the handling of all wildlife to expert handlers, and having a biological monitor on site to avoid and minimize impacts on biological resources, such as vegetation communities that have the potential to support these species. SDG&E would further minimize or reduce impacts on special-status mammal species by implementing APMs BIO-1 through BIO-4, BIO-8, and BIO-9. Furthermore, implementation of the measures outlined in SDG&E Subregional NCCP, Section 7.2, Habitat Enhancement Measures, would further reduce impacts on habitat for special-status mammal species.

As noted in the discussion of the NCCP in Section 3.4.2., *Regulatory Setting*, in approving the NCCP, USFWS, and CDFW determined that implementation of avoidance and minimization measures and Operational Protocols would avoid or reduce potential impacts to special-status plant and wildlife species and provide appropriate mitigation where impacts occur. However, there are currently no assurances that sufficient take or mitigation credits provided under the NCCP would be available at the time Project construction would commence. If the take of listed species goes beyond the available take authorized under the NCCP, this additional take and/or adverse modification of habitat could result in a significant impact beyond what is covered under the NCCP. Therefore, in the event that there are not sufficient take or mitigation credits provided under the NCCP at the time of Project construction, **Mitigation Measure BIO-1** is proposed to avoid and reduce impacts. Implementation of this mitigation measure would ensure that the Project would comply with all regulatory requirements addressing special-status mammal species, reducing this impact to less than significant.

> **Mitigation Measure BIO-1: Project Compliance with the Federal and California Endangered Species Acts.** See full text of this Mitigation Measure under the analysis of *Special-Status Plant Species*, above.
>
> **Significance after Mitigation:** There is no documented assurance that there would be sufficient mitigation/take credits available to the Project under the current NCCP at the time of its construction to address impacts on federally- and/or State-listed sensitive mammal species. With implementation of Mitigation Measure BIO-1, compliance with the federal and California Endangered Species Acts would be required in the absence of sufficient NCCP credits. Therefore, impacts on special-status mammal species attributable to the Project would be reduced to less than significant.

Operation and Maintenance

SDG&E currently maintains and operates extensive existing electric utility, transmission, distribution, and substation facilities throughout the BSA. The frequency of operation and maintenance activities for the Project would increase slightly. Although the proposed steel poles would require less maintenance and repair than the existing wood poles, the added structures in Segment 2 would require an increase in frequency of maintenance trips. However, as noted in Question a in Section 3.17, Transportation and Traffic, this increase would be minimal and the

potential impact on the environment would be negligible. As such, impacts to special-status species would be less than significant.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service: ***LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED.***

Construction

The SDG&E Subregional NCCP and HCP allow for impacts on sensitive vegetation communities when incidental to otherwise lawful activities and conducted in full compliance with the NCCP measures. Compliance with the NCCP measures is intended to avoid or minimize impacts on sensitive natural resources.

Potential permanent and temporary impacts that may result from construction of the Project were calculated and analyzed by using the vegetation map produced during the 2016 field surveys, as well as additional information in SDG&E Subregional NCCP Section 3.1, Data Base References. Total impacts on vegetation communities are summarized in **Table 3.4-5**.

The Project could cause impacts on sensitive vegetation communities. These communities include the NCCP Community types coastal sage scrub, coastal sage/chaparral mix, southern maritime chaparral, grassland, open oak woodland, freshwater marsh, riparian forest, coast live oak riparian forest, and riparian scrub. Project construction could result in permanent loss and/or temporary disturbance of sensitive vegetation communities. Direct permanent impacts on sensitive natural vegetation communities could result from the permanent placement of steel poles within southern maritime chaparral and Diegan coastal sage scrub associated with Segment 2. Segments 1 and 3 are existing power lines with existing poles; all existing facilities would be completely removed where feasible when they are replaced (Appendix D.1, Figures 3.4-1.1 through 3.4-1.3 and Figures 3.4-1.8 through Figures 3.4-1.18). Additionally, most poles associated with Segment 1 would be located in existing disturbed habitat. In Segment 3, 29 existing steel lattice towers would be used for the project, minimizing the need for new construction. Temporary direct impacts would result from grading, brush removal, and vegetation trimming required during construction for pole removal, installation, staging yards, stringing sites, laydown areas, footpaths, and guard structures. No temporary or permanent impacts would occur within riparian habitat.

Indirect impacts on sensitive vegetation communities may include the increased exposure to exotic plant species. Non-native exotic plant species are opportunistic and often occupy disturbed soils such as those within electric utility line corridors and areas of exposed bare ground that may occur within the disturbance area. Wildfires caused by downed electric lines are rare but may occur. Exotic species often frequent areas adjacent to and within burn areas following a wildfire. Once introduced, these exotic plant species often outcompete natives for resources, resulting in a reduction in growth, future dispersal, and recruitment of native species, and the eventual degradation of the vegetation community. Erosion and stormwater contaminant runoff also may degrade adjacent vegetation communities. Finally, dust deposition on leaf surfaces may result from construction traffic on dirt roads or lots.

TABLE 3.4-5
IMPACTS ON VEGETATION COMMUNITIES

NCCP[a] Vegetation Community	Holland/Oberbauer Vegetation Community[b]/ Land Cover Type	Permanent Impact (Acres)	Temporary Impact (Acres)
Disturbed/Developed			
Disturbed Habitat	Disturbed Habitat	0.7	22.0
	Urban/Developed	0.3	56.1
	Orchard/Vineyard	<0.1	0.2
Agricultural	Intensive Agriculture	--	--
Uplands			
Coastal Sage Scrub	Diegan Coastal Sage Scrub*	0.8	0.7
	Diegan Coastal Sage Scrub-Burned*	--	<0.1
	Diegan Coastal Sage Scrub-Disturbed*		<0.1
Coastal Sage/Chaparral Mix	Coastal Sage-Chaparral Transition*	--	--
Southern Maritime Chaparral	Southern Maritime Chaparral*	0.3	0.3
	Southern Maritime Chaparral-Burned*	--	<0.1
Grassland	Non-Native Grassland*	--	<0.1
Open Oak Woodland	Coast Live Oak Woodland*	--	--
	Coast Live Oak Woodland-Disturbed*	--	--
Eucalyptus Forest	Non-Native Woodland	--	--
	Eucalyptus Woodlands	--	<0.1
Riparian/Wetlands			
Freshwater Marsh	Emergent Wetlands*	--	--
	Coastal and Valley Freshwater Marsh*	--	--
Riparian Forest	Southern Riparian Forest*	--	--
Coast Live Oak Riparian Forest	Southern Coast Live Oak Riparian Forest*	--	--
Riparian Scrub	Mule Fat Scrub*	--	--
	Southern Willow Scrub*	--	--
	Southern Willow Scrub-Disturbed*	--	--
Inland Water	Fresh Water	--	--
	Total	**2.0**	**79.4**

NOTES:
[a] SDG&E Subregional Natural Community Conservation Plan.
[b] Vegetation community codes correspond to Oberbauer et al. (2008), which also mirror Holland's (1986) element code. These codes help define the vegetation hierarchy inherent in a classification system. Similarly coded vegetation communities exhibit similar assemblages of plant and animal species, and typically exist in similar macro-habitat types.
* Indicates a sensitive natural community.

SOURCE: ICF, 2017a

The SDG&E Subregional NCCP allows for impacts on sensitive habitats when incidental to otherwise lawful activities and when conducted in full compliance with the NCCP. Compliance with the NCCP is designed to avoid impacts whenever possible and to implement protection measures to avoid and minimize take to the maximum extent possible. Consistent with the NCCP, the Project has been designed to avoid sensitive habitat areas when possible, and includes such directives as not placing new poles in drainage areas, using existing access roads where feasible,

and placing any new facilities, staging areas, stringing sites, guard structures, and helicopter landing zones outside sensitive habitats when feasible.

Where avoidance of sensitive habitat areas is not possible, or where sensitive habitat areas exist adjacent to the Project work areas, implementation of the measures in NCCP Sections 7.1 and 7.2 would further minimize impacts in sensitive natural communities. Specifically, SDG&E would mark the boundaries of work limits and sensitive habitats and resources that would be avoided in accordance with Operational Protocol #14. Operational Protocols #1 and #39 would reduce fugitive dust resulting from construction vehicles by requiring that vehicles drive at speeds of 15 mph or less, and that regular watering occurs, respectively. Operational Protocol #20 requires SDG&E to use BMPs to minimize erosion and sedimentation effects of stormwater. The Project would also be required to comply with the Construction General Permit, as discussed in Section 3.10, *Hydrology and Water Quality*, requiring preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP), which would include BMPs to control run-on and runoff from construction work sites. The SWPPP BMPs would include, but would not be limited to, physical barriers to prevent erosion and sedimentation, construction of sedimentation basins, limitations on work periods during storm events, use of infiltration swales, protection of stockpiled materials, and a variety of other measures that would substantially reduce or prevent erosion from occurring during construction. NCCP Section 7.2 would be implemented to enhance habitat and minimize invasive species establishment and spread. SDG&E would further reduce impacts by implementing APMs BIO-1 through BIO-5, BIO-8, and BIO-9 as discussed under Question a.

SDG&E proposes to withdraw credit from the SDG&E mitigation bank for approximately 1.1 acres (46,443 square feet) of permanent impacts on sensitive vegetation communities (not categorized as disturbed/developed land cover types) as identified in Table 3.4-5, which would be mitigated at a 2:1 ratio for impacts within a preserve and a 1:1 mitigation ratio for impacts outside of a preserve (as discussed in NCCP Section 7.4). Total mitigation credit withdrawal requirements would be further refined during the pre-activity survey report (PSR) phase of the Project, prior to the beginning of construction.

Temporary impacts of approximately 47,324 square feet (1.1 acres) would occur on sensitive vegetation communities (not categorized as disturbed/developed land cover types) from the Project as identified in Table 3.4-5. Temporary impacts are mitigated through basic site remediation, which includes native hydroseed for erosion control. If roots are not grubbed during temporary impacts, then hydroseeding may not be necessary. As discussed in NCCP Section 7.4, this applies to areas greater than 500 square feet, and only where grubbing occurred. For all temporary impacts greater than 500 square feet that are located outside of a preserve, acreage not meeting success criteria shall be deducted from SDG&E mitigation credits at a 1:1 ratio. Within a preserve, any areas not meeting success criteria shall be deducted from SDG&E mitigation credits at a 1:1 ratio.

Habitat that is expected to recover on its own consists of non-native grassland, in which the majority of species are non-native in origin. Because SDG&E does not actively enhance nonnative vegetation, and because this habitat type is generally considered resilient enough to completely regenerate to pre-activity levels without active enhancement measures, these areas would be monitored in order to determine whether or not they meet success criteria. With

implementation of the required mitigation for permanent impacts, Operational Protocols, revegetation and habitat rehabilitation in accordance with NCCP Section 7.2, impacts on sensitive habitats would be less than significant.

Implementation of the measures in SDG&E Subregional NCCP Section 7.1, Operational Protocols, Section 7.2, Habitat Enhancement Measures, and/or Section 7.4, Mitigation Credits will reduce impacts to sensitive vegetation communities to less than significant. NCCP Section 7.2, Habitat Enhancement Measures, includes mitigation measures for the protection of sensitive habitats. NCCP Section 7.4, Mitigation Credits, describes the procedure to implement mitigation credits and provides the mitigation ratios to be used. SDG&E would further minimize the impact by implementing APMs BIO-1 through BIO-5, BIO-8, and BIO-9. These measures would require a biological monitor to be present during all ground-disturbing and vegetation removal activities and to survey the site immediately prior to initial ground-disturbing activities and/or vegetation removal to ensure that no sensitive vegetation communities would be impacted and that, wherever possible, vegetation would be left in place or mowed, instead of grubbed, to avoid impacts on sensitive vegetation communities and associated dependent wildlife species. With implementation of the NCCP and APMs, impacts on sensitive vegetation communities would be less than significant.

USFWS Critical Habitat

Some temporary and permanent Project impact areas are within USFWS-designated Critical Habitat for coastal California gnatcatcher (refer to Appendix D.2, Biological Technical Report, Figure 3, Preserves and Critical Habitat). The Project would result in 0.7 acre of direct permanent impacts and 3.4 acres of direct temporary impacts within Critical Habitat for coastal California gnatcatcher at multiple locations throughout the alignment due to vegetation clearing and ground disturbance. This area is small compared to the habitat that is available regionally for the species, and much of the habitat mapped as Critical Habitat that would be permanently impacted is disturbed.

The Project may result in additional indirect impacts on Critical Habitat if non-native invasive weeds are spread during construction; if allowed to establish and spread, non-native invasive weeds may change the species composition of Critical Habitat. Additionally, construction vehicles and equipment may cause temporary indirect impacts such as an increase in sedimentation, erosion, and trampling, and an increase in the amount of fugitive dust.

Consistent with the SDG&E Subregional NCCP, the Project has been designed to avoid sensitive habitat areas. SDG&E would further minimize impacts on Critical Habitat with the implementation of the APMs BIO-1 through BIO-5, BIO-8, and BIO-9, as discussed in previous sections. In addition, SDG&E would implement BIO-6, which would require surveys for coastal California gnatcatcher by a qualified biologist during the nesting season and appropriate work buffers around nests and appropriate agency consultation.

As noted in the discussion of the NCCP in Section 3.4.2., in approving the NCCP, USFWS and CDFW determined that implementation of avoidance and minimization measures and Operational Protocols would avoid potential impacts and provide appropriate mitigation where impacts occur.

With implementation of NCCP Section 7.1 (including the NCCP Operational Protocols) and Section 7.2, and APMs BIO-1 through BIO-6, BIO-8, and BIO-9, potential impacts on USFWS critical habitat for coastal California gnatcatcher would be less than significant.

Preserve Areas

The Project would intersect with various designated preserves and open space easements. The Project would traverse San Elijo Hills Open Space in the City of San Marcos, and permanent impacts would occur on two areas. The Project would traverse University Commons Preserve managed by the Center for Natural Lands Management and includes several temporary and permanent impacts adjacent to existing access roads. The Project would temporarily and permanently impact several areas within the Rancho Dorado HOA Preserve in the City of San Marcos and Carrillo Ranch Reserve and Carlsbad Raceway Open Space Preserve in the City of Carlsbad. Temporary impacts would occur within the County of San Diego Sage Hill Preserve, primarily within existing disturbed areas of an existing SDG&E access road. Direct and indirect permanent and temporary impacts on preserves and HCP lands would be minimal, and the overall function, viability, and purpose of the preserves would not be adversely affected. The Project would use existing roads within the preserves, and permanent installations would occur on disjoint features that would not permanently adversely interfere with drainages, topography, jurisdictional features, wildlife corridors, wildlife movement, or preserve assembly. Moreover, all temporary impacts would be revegetated in accordance with the standards in NCCP Section 7.2. Therefore, impacts on preserve lands would be less than significant.

SDG&E would avoid or reduce potential impacts and ensure the protection and conservation of these lands in accordance with the SDG&E Subregional NCCP and would implement Operational Protocols that apply to construction and operation and maintenance activities. As described in previous sections, SDG&E also would implement APMs BIO-1 through BIO-6, BIO-8, and BIO-9.

Operation and Maintenance

SDG&E currently maintains and operates extensive existing electric utility, transmission, distribution, and substation facilities throughout the BSA. The frequency of operation and maintenance activities for the Project would increase slightly. Although the proposed steel poles would require less maintenance and repair than the existing wood poles, the added structures in Segment 2 would require an increase in frequency of maintenance trips. However, this increase would be so slight the potential impact on sensitive habitats would be negligible. As such, impacts would be less than significant.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means: *LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.*

Construction

The Project has been designed to avoid impacts to wetlands and non-wetland waters that are regulated by USACE, CDFW, RWQCB, and/or pursuant to the applicable federal and State regulations. No existing or proposed poles are or would be located within an aquatic feature. Five

existing poles and one associated work area are within 25 feet of a jurisdictional feature: Poles 7 and 35, the work area between Poles 70 and 71, and Poles 72, 97, and 99. All work areas associated with these poles have been sited to ensure no impacts on these features occur.

A full discussion of each aquatic resource adjacent to a Project component is presented in the Jurisdictional Delineation Report (see Appendix C of IS/MND Appendix D.2) and summarized below, including detail on implementation of Mitigation Measure BIO-3:

- **Pole 7:** Located approximately 5 feet from jurisdictional feature 002. Work would include the replacement of a pier foundation. The work area has been revised to avoid the mapped extent of this feature. Work area limits would be flagged to ensure the work avoids this feature.
- **Pole 35:** Located approximately 1 foot from jurisdictional feature 10b. The impact footprint occurs near the top of the bank of feature 10b. Work would be limited to the east side of the pole.
- **Work area between Poles 70 and 71:** Located approximately 1 foot from jurisdictional feature 060. The work area has been revised to avoid impacts to feature. Work would be confined to the existing road.
- **Pole 72:** Located approximately 5 feet from feature 056. Work would consist of overhead work to the existing pole. Work area limits would be flagged to ensure that the work area avoids feature 056.
- **Pole 97:** Located 5 feet from feature 089b. Feature is within 5 feet of temporary impact area. Work area limits would be flagged to avoid impact to this feature.
- **Pole 99:** Located within 3 feet of feature 092. Work area limits would be flagged to ensure all work occurs within the access road limits and avoids impacts to the feature.

In addition, there are a number of existing access road crossings through jurisdictional aquatic features; these existing crossings would be used and no new or additional grading or road improvements are proposed. If installed, a bridge would be required to comply with all applicable resource regulations if the subject drainage is determined to be jurisdictional. Proposed staging yards also support aquatic features; therefore, impact areas associated with these yards have been located to avoid all aquatic features.

APMs BIO-1 through BIO-5 require implementation of the NCCP Operational Protocols, keeping equipment free of mud and vegetative material, staying within designated work area and existing roads, and flagging work area limits and installing silt fencing around sensitive plant populations adjacent to the work areas of the six pools would help avoid impacts to these resource. However, the APMs do not specifically address jurisdictional resources. Therefore, **Mitigation Measure BIO-3** is proposed to provide specific avoidance measures to protect aquatic features considered jurisdictional, but not currently covered in NCCP Section 7.1 Operational Protocols or the APMs proposed for the Project.

> **Mitigation Measure BIO-3: Avoid Jurisdictional Resources.** To avoid impacts on jurisdictional areas, SDG&E and its contractor shall flag work area limits and work shall be restricted to the flagged limits. Additionally, silt fencing shall be installed on the side of the work area closest to the jurisdictional feature, to minimize construction-generated

run-off or sedimentation. A qualified biologist shall verify that silt fencing and construction work is properly installed and are located outside of jurisdictional areas to confirm their avoidance. Monitoring shall take place during rain events to confirm the integrity of silt fencing and verify runoff does not enter jurisdictional areas.

Significance after Mitigation: SDG&E would avoid or reduce potential impacts and ensure the protection and conservation of these lands in accordance with the SDG&E Subregional NCCP and implement Operational Protocols that apply to construction and operation and maintenance activities. As described above, SDG&E would implement APMs BIO-1 through BIO-5 to further reduce impacts on jurisdictional resources. As these measures provide general protection for biological resources, Mitigation Measure BIO-3 is proposed to provide specific protections to avoid impacts on jurisdictional resources. Thus, Mitigation Measure BIO-3 would ensure potential impacts jurisdictional resources would be reduced to less than significant.

Operation and Maintenance

The frequency of operation and maintenance activities near jurisdictional features would increase slightly as a result of additional maintenance needs at the five poles and the associated work area near jurisdictional features. Although the proposed steel poles would require less maintenance and repair than the existing wood poles, the added structures in Segment 2 would require an increase in frequency of maintenance trips, including on those existing access road crossings through jurisdictional aquatic features. However, this increase would be so slight that the potential impact on federally protected wetlands would be negligible. Work could occur adjacent to jurisdictional features; however, this work would be limited in duration and in area, and SDG&E would comply with standard BMPs described above. If necessary, SDG&E would obtain any permits required to conduct maintenance activities that would impact wetlands. As such, impacts would be less than significant.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites: *LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED.*

The Project would not result in significant permanent or temporary impacts on local or regional wildlife movement corridors, including migratory bird routes. Construction activities within areas that serve as wildlife corridors may temporarily disrupt normal animal movement due to the presence of construction equipment and materials, excavations associated with the pole removals and new pole installation, increased human presence, increased noise levels, and increased vehicular traffic along access roads. Construction vehicles have the potential to result in accidental injury or mortality of onsite species during construction; however, wildlife would be mobile and would likely temporarily leave an area where construction activity is occurring.

Construction would not occur in all areas simultaneously, as noted in Section 2.5.1 in Chapter 2, *Project Description*, thus resulting in only a minor potential for impact on wildlife movement at any point in time and at any given location. Temporary restrictions on wildlife movement would also be localized to only a portion of the potential wildlife movement area that animals can use at any one time because wildlife species would be able to use areas outside of the proposed construction areas.

In addition, permanent impact areas have small footprints that are discontinuous, with breaks of natural habitat between them that would therefore not restrict or impede wildlife movement. Therefore, impacts on migratory wildlife corridors or the use of native wildlife nursery sites, including nesting bird sites as discussed in Question a above, would be less than significant. SDG&E would conduct activities in accordance with NCCP Operational Protocols to avoid and minimize impacts on biological resources. SDG&E would also implement APMs BIO-1 through BIO-9.

However, certain nesting bird habitats and jurisdictional resources that serve as riparian corridors for wildlife movement are not currently covered within the NCCP Section 7.1 Operational Protocols or the APMs proposed for the Project, and as described under Question a with respect to helicopter impacts on nesting birds (i.e., nursery sites) and under Question c with respect to construction-generated runoff and sedimentation into jurisdictional areas (i.e., riparian corridors), significant impacts could occur. Mitigation Measures BIO-1, BIO-2, and BIO-3 require specific actions to ensure avoidance and minimization of impacts on these habitat types.

> **Mitigation Measure BIO-1: Project Compliance with the Federal and California Endangered Species Acts.** See full text of this Mitigation Measure under Question a, above.
>
> **Mitigation Measure BIO-2: Establishment of Cylindrical Construction Buffers.** See full text of this Mitigation Measure under Question a, above.
>
> **Mitigation Measure BIO-3: Avoid Jurisdictional Resources.** See full text of this Mitigation Measure under Question c, above.
>
> **Significance after Mitigation:** Implementation of Mitigation Measures BIO-1, BIO-2, and BIO-3 would reduce the disruption of normal animal movement due to helicopter use and construction-generated runoff and sedimentation into jurisdictional areas used for wildlife movement, including riparian corridors. With implementation of Mitigation Measures BIO-1, BIO-2, and BIO-3, impacts would be mitigated to a less-than-significant level.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance: *NO IMPACT.*

Project construction would not conflict with any of the local environmental policies or ordinances to protect biological resources identified in Section 3.4.2, *Regulatory Setting*. The Project is located within the cities of Carlsbad, Escondido, San Marcos, and Vista, and in unincorporated San Diego County. Based on a review of applicable local policies, the Project would not conflict with local policies and plans, which include the tree ordinances and biological resource-related general plan policies of each of these jurisdictions. Therefore, the Project would not conflict with any local policies or plans protecting biological resources. No impact would occur.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan: *NO IMPACT.*

The Project is not subject to local discretionary regulations related to biological resources because the CPUC has exclusive jurisdiction over the siting, design, and construction of the Project; however, the Project would also occur within the area covered by, and would follow the requirements of, the SDG&E Subregional NCCP and Low Effect HCP. SDG&E's existing NCCP and HCP supersede the County of San Diego MSCP and approved City and County Subarea Plans and, therefore, are the only conservation plans that apply to the Project. The Project would not conflict with the provisions of either of these conservation plans. SDG&E would follow the Operational Protocols identified in the NCCP for construction and operations and maintenance of the Project.

The Project includes areas within the City of Carlsbad MHCP Subarea Plan, City of San Marcos MHCP Subarea Plan, City of Escondido MHCP Subarea Plan, and the planning area of the draft County of San Diego North County MSCP. Although these local plans are not applicable under CPUC jurisdiction, the Project would not conflict with local HCPs and NCCPs, including these plans. In addition, the Project would not conflict with the monitoring, management, or maintenance of either the County of San Diego Subarea Plan of the MSCP, and specifically the MHPA. Therefore, the Project would not conflict with any local policies or plans protecting biological resources and there would be no impact.

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3.5 Cultural Resources

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
5.	**CULTURAL RESOURCES — Would the project:**				
a)	Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines §15064.5?	☐	☒	☐	☐
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?	☐	☒	☐	☐
c)	Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

Cultural resources include historic architectural resources; archaeological resources; and human remains. This section provides an assessment of potential impacts on cultural resources as a result of Project implementation.

The cultural resources study area for the Project includes a 150-foot buffer on either side of the center line of the entire Project alignment, as well as including all Project components, access roads, staging yards, substation locations, and pole replacement sites.

3.5.1 Environmental Setting

Prehistoric Period

The chronology of coastal southern California is typically divided into three general time periods: the Early Holocene (11,000 to 8,000 before present [B.P.]), the Middle Holocene (8,000 to 4,000 B.P.), and the Late Holocene (4,000 B.P. to A.D. 1769). Within this general timeframe, the archaeology of southern California is generally described in terms of cultural "complexes." A complex is a specific archaeological manifestation of a general mode of life, characterized archaeologically by technology, particular artifacts, economic systems, trade, burial practices, and other aspects of culture.

Early Holocene (11,000 to 8,000 B.P.)

While it is not certain when humans first came to California, their presence in southern California by about 11,000 B.P. has been well documented. At Daisy Cave, on San Miguel Island (located in the Pacific Ocean off the coast of Los Angeles, cultural remains have been radiocarbon dated to between 11,100 and 10,950 years B.P. (Byrd and Raab, 2007). On the mainland, radiocarbon evidence confirms occupation of the Orange County and San Diego County coasts by about 9,000 B.P., primarily in lagoon and river valley locations (Gallegos, 2002). During the Early Holocene, the climate of southern California became warmer and more arid and the human population, residing mainly in coastal or inland desert areas, began exploiting a wider range of plant and animal resources (Horne and McDougall, 2003).

The primary Early Holocene cultural complex in coastal southern California was the San Dieguito Complex. The people of the San Dieguito Complex (about 10,000–8,000 B.P.) inhabited the chaparral zones of southwestern California, exploiting the plant and animal resources of these ecological zones (Moratto, 1984; Warren, 1967). Leaf-shaped and large-stemmed projectile points are typical of San Dieguito Complex material culture.

Middle Holocene (8,000 to 4,000 B.P.)

During the Middle Holocene, there is evidence for the processing of acorns for food and for the increased importance of hunting (Horne and McDougall, 2003). The processing of plant foods, particularly acorns, increased, a wider variety of animals were hunted, and trade with neighboring regions intensified (Horne and McDougall, 2003). Major technological changes appeared as well, particularly with the advent of the bow and arrow, which largely replaced the use of the dart and atlatl, or spear thrower.

The Middle Holocene La Jolla Complex (about 8,000–4,000 B.P.) is essentially a continuation of the San Dieguito Complex. La Jolla groups lived in chaparral zones or along the coast, often migrating between the two. Coastal settlement focused around the bays and estuaries of coastal Orange and San Diego counties. La Jolla peoples produced large, coarse stone tools, but also produced well-made projectile points, and milling slabs. The La Jolla Complex represents a period of population growth and increasing social complexity, and it was also during this time period that the first evidence of the grinding of seeds for flour, as indicated by the abundance of millingstones in the archaeological record, appears (Horne and McDougall, 2003).

Late Holocene (4,000 B.P. to A.D. 1769)

During the Late Holocene, native populations of southern California were becoming less mobile and populations began to gather in small sedentary villages with satellite resource-gathering camps. Evidence indicates that the overexploitation of larger, high-ranked food resources may have led to a shift in subsistence. This shift focused on acquiring greater amounts of smaller resources, such as shellfish and small-seeded plants (Byrd and Raab, 2007). In coastal southern California, conditions became dryer and many lagoons had been transformed into saltwater marshes. Because of this, populations abandoned mesas, flat elevated landforms, and ridge tops to settle nearer to permanent freshwater resources (Gallegos, 2002). Although the intensity of trade had already been increasing, it reached its zenith during this time period, with asphaltum (tar), seashells and steatite being traded from southern California to the Great Basin.

Ethnographic Period

Luiseño

The Luiseño were named after the Mission San Luis Rey, to which many of them were relocated. The language of the Luiseño people has been identified as belonging to the Cupan group of the Takic subfamily, which is part of the larger Uto-Aztecan language family (Bean and Shipek, 1978). Luiseño territory was bordered by Agua Hedionda Creek on the south and Aliso Creek on the northwest, encompassed most of the drainage of the San Luis Rey River and the Santa Margarita River, and extended east as far as the San Jacinto Mountains. Today this area is located within

northern San Diego, southern Orange, and Riverside counties, and would have encompassed diverse environments including lagoons and marshes, coastal areas, inland river valleys, foothills, and mountains. Luiseño placenames in the Project vicinity include *$iikapa*, *piyeevo*, and *ánáavax* (Rincon Cultural Resources Department, 2018).

The Luiseño subsisted on small game, coastal marine resources, and a wide variety of plant foods such as grass seeds and acorns. Luiseño houses were conical thatched reed, brush, or bark structures. The Luiseño inhabited permanent villages centered around patrilineal clans, with each village headed by a chief (Sparkman, 1908). Seasonal camps associated with villages were also used. Each village or clan had an associated territory and hunting, collecting, and fishing areas. Villages were typically located in proximity to a food or water source, or in defensive locations, often near valley bottoms, streams, sheltered coves or canyons, or coastal strands (Bean and Shipek, 1978). It is estimated that there may have been around 50 Luiseño villages with a population of about 200 each at the time of the first Spanish contact (Bean and Shipek, 1978).

Today, there are six federally recognized tribes in California who share Luiseño tribal affiliation, language, and culture, including the La Jolla Band of Luiseño Indians (La Jolla), Rincon Band of Luiseño Indians (Rincon), Pauma Yuima Band of Mission Indians (Pauma), Pechanga Band of Luiseño Indians (Pechanga), Pala Band of Mission Indians (Pala), and Soboba Band of Luiseño Indians (Soboba).

Kumeyaay

The greater San Diego area was inhabited by a group of people known generally as the Kumeyaay. The Kumeyaay are one of many local Native groups collectively referred to as the Diegueño, specifically representing populations occupying an area that encompassed roughly southern present-day San Diego County, southern Imperial County, and northern Baja California (Kroeber, 1925). The Kumeyaay language belonged to the Yuman language family, Hokan stock (Luomala, 1978). Subsistence strategy for the Kumeyaay involved small-game hunting and resource gathering, with a noted reliance upon marine resources near San Diego Bay and along the Pacific Coast. Inland Kumeyaay populations relied primarily upon the exploitation of small game animals including insects, fish, birds, dove, rabbits, and squirrels, as well as abundantly available vegetal resources such as many varieties of seeds, principally the acorn, cacti, and herbaceous plants. Studies indicate that the Kumeyaay divided their seasonal subsistence between the mountain and the desert ecological zones. With the seasons, the Kumeyaay moved in small bands from one productive area to another to ensure a near constant food supply (Luomala, 1978).

In 1769, the Mission San Diego de Alcalá was founded and Kumeyaay were missionized and eventually moved onto reservations (Luomala, 1978). Today, Kumeyaay tribal members within the United States are divided into twelve federally recognized bands: Barona, Campo, Ewiiaapaayp, Inaja-Cosmit, Jamul, La Posta, Manzanita, Mesa Grande, San Pasqual, Santa Ysabel, Sycuan, and Viejas. An additional San Diego County band, the Kwaaymii Laguna Band of Indians, is not currently federally recognized. Several more Kumeyaay communities are present in Mexico.

Historic Period

The first European presence near present day San Diego came in 1542, when Juan Rodriguez Cabrillo led an expedition along the coast. Europeans did not return until 1769, when the expedition of Gaspar de Portola traveled overland from San Diego to San Francisco. In the late 18th century, the Spanish began establishing missions in California and forcibly relocating and converting native peoples (Horne and McDougall, 2003). The nearest mission to the Project was Mission San Diego de Alcalá, founded in 1769 by Father Junipero Serra.

Disease and hard labor took a toll on the native populations; by 1900, the Native Californian population had declined by as much as 95 percent (Chartkoff and Chartkoff, 1984). In addition, native economies were disrupted, trade routes were interrupted, and native ways of life were significantly altered.

In 1821, Mexico, which included much of present-day California, became independent from Spain, and during the 1820s and 1830s the California missions were secularized. Mission property was supposed to have been held in trust for the Native Californians, but instead was handed over to civil administrators and then into private ownership. After secularization, many former Mission Indians were forced to leave the Missions and seek employment as laborers, ranch hands, or domestic servants (Horne and McDougall, 2003).

In 1848, gold was discovered in California, leading to a huge influx of people from other parts of North America. In 1850, California became part of the United States of America. The opening of the Butterfield Overland Stage route in 1858 and later the California Southern Railroad line in 1882 greatly increased the number of people coming to southern California.

San Marcos

The San Marcos Valley was first noted in 1797 by Spanish soldiers who named it Los Vallecitos de San Marcos in honor of the feast day for Saint Mark (City of San Marcos, 2013). The land was granted as Rancho Vallecitos de San Marcos, an 8,975-acre land grant, to Jose Marie Alvarado in 1840. During the first half of the 19th century, the fertile valley saw sporadic settlement, but in 1883, John H. Barham founded the first formal town in the valley. The town was named Barham in honor of its founder, and boasted a post office, a blacksmith shop, a feed store, and a weekly newspaper (Rossi, 2005). By 1888, the California Southern Railroad, which ran between Los Angeles and San Diego, was built approximately 2 miles north of Barham and closer to a new town site established by the San Marcos Development Company (Rossi 2005). The San Marcos Development Company was established in 1887 by Jacob Gruendyke, a banker, and W.G. Jacobs. Gruendyke and Jacobs purchased the lands formerly encompassed the Rancho Los Vallecitos de San Marcos, laid out a town site and began selling lots (Carroll, 1975). By 1892 the new community of San Marcos was booming with 87 registered voters and a busy train depot with four trains a day passing through from Los Angeles (City of San Marcos, 2013). During the early 20th century, San Marcos' economy was dominated by agriculture and the town offered a telephone service and mail delivery (City of San Marcos, 2013). During the 1950s, the construction of State Route 78 connected San Marcos to the broader region, and the San Diego Aqueduct brought Colorado River water to the area. These two developments allowed San Marcos to expand

further, and in 1963 the City incorporated with a population of 2,500 residents. As of 2010, San Marcos has population of 83,781 and is serviced by State Route 78.

Escondido

In 1834, a 12,653-acre land grant, known as the Rincon del Diablo Rancho, or "corner of the devil," located within the Escondido Valley, was granted to Juan Bautista Alvarado of San Diego (Escondido History Center, 2011). Alvarado constructed a large adobe overlooking the Escondido Valley and raised cattle for the hide and tallow trade. In the early 1850s, Juan and his wife died and their children each sold their shares of the rancho to a San Diego judge named Oliver S. Witherby (Escondido History Center, 2011). By 1868, Witherby sold the rancho to Edward McGeary and the three Wolfskill brothers, John, Matthew and Josiah (Escondido History Center, 2011). McGeary and the Wolfskill brothers shifted the economic activities of the rancho from cattle ranching to sheep ranching. In 1883, the ranch was sold to The Stockton Company for $128,138.70 (Escondido History Center, 2011). A year later The Stockton Company transferred its interest in the valley to The Escondido Company, which planted large vineyards of Muscat grapes. In March 1886, The Escondido Company deeded the ranch to the Escondido Land & Town Company for $104,042 (Escondido History Center, 2011). In 1887, the Escondido Land & Town Company invested in the construction of a rail line that connected Escondido to the town of Oceanside, located approximately 18 miles to the northwest (Escondido History Center, 2011). The rail line transported the agricultural products of the Escondido Valley to outside markets and stimulated settlement in the region. In 1887, the Santa Fe Depot was built on the west end of Grand Avenue and remained in operation until 1945 (Escondido History Center, 2011). In 1950, Highway 395 connected Escondido to the ever expanding City of San Diego, located approximately 30 miles to the southwest. During the Cold War of the 1950s, the City and County of San Diego expanded as military defense spending increased and the demand for affordable housing skyrocketed. To meet the increased demand for new housing, many of Escondido's vineyards and citrus orchards were transformed into housing subdivisions (Escondido History Center, 2011).

History of Electrical Transmission in California and San Diego County

The following context summarizes the history of electrical transmission in California and San Diego County provided in the historic resources evaluation report prepared in support of the Project (Yates et al., 2018).

Transmission Technology in California

Overhead electric transmission lines were first developed in Europe as early as the 1870s. By 1891, the San Bernardino Light & Power Company constructed the first long distance transmission line in California, which extended 28 miles from Pomona to San Bernardino. The following year, a 23-mile line was constructed between Riverside and Mill Creek and was operated as the first 10 kV commercial three-phase alternating current (AC) transmission line in the region. In 1895, an 11 kV commercial three-phase AC transmission line was constructed from the Folsom Powerhouse to Sacramento, a distance of 22 miles. At the turn of the century, electrical transmission technology evolved at a rapid pace with increases in voltage capacity and the development of steel lattice towers, which reduced the labor costs of transmission line construction.

In 1907, E. M. Hewlett and H. W. Buck developed the suspension insulator, which allowed long-distance transmission capacity to reach 100,000 kV. By 1909 three transmission lines could deliver as much as 100 kV of electricity at distances greater than 150 miles: Great Western Power's Las Plumas line from Big Bend to Oakland (155 miles); Colorado Power Company's Glenwood-Denver line (152 miles); and the Southern Power Company's Great Falls, South Carolina-Durham, North Carolina line (210) miles. The construction of the Big Creek transmission line in 1913 set the stage for the evolution of transmission technology and design in California. The 214-mile, 150 kV line was constructed by the Pacific Light and Power, which employed steel lattice towers 41 feet high and incorporated cross arms approximately 34 feet wide, which engineers designed to carry conduit at average lengths of 660 feet between tower locations. Soon after the construction of the Big Creek line, Southern California Edison (SCE) acquired the Big Creek system and began upgrading and building new lines with 220 kV capacity by augmenting existing towers to carry heavier loads. During the 1920s additional transmission lines were constructed using steel lattice towers designed to carry heavier loads allowing for 220 kV capacity transmission over hundreds of miles.

The development of Boulder Dam during the 1930s resulted in the next major advancement in long-distance electricity transmission. SCE constructed three single-circuit 220 kV lines, known as the First, Second, and Third Boulder Lines, to transmit power from Boulder Dam on the Colorado River to the Los Angeles area. In 1936 the Los Angeles Department of Water and Power (LADWP) completed the Boulder Dam-Los Angeles 287.5 kV line, which represented the highest commercial operating voltage in the world at the time. By 1940, long-distance transmission capacity would reach the 300 kV. After World War II, the effort to connect the electrical systems of large regions resulted in the largest advances in transmission technology. The interconnection effort in the Western United States was known as the Pacific Intertie Project. California-based SCE and Pacific Gas & Electric Company (PG&E) joined with the Bonneville Power Administration and Portland General Electric to construct twin 500 kV lines from Southern California to Washington in 1960. Engineers designed larger steel lattice towers to accommodate the 500 kV lines' heavier loads.

Electrical Service in San Diego County

Early Gas and Electric Company Formation 1881-1904

In 1881, a group of San Diego city leaders, R. M. Powers, O. S. Witherby, Bryant Howard, James Gordon, and E. W. Morse, launched the San Diego Gas Company to meet the demand for municipal gas distribution resulting from the city of San Diego's population boom in the 1870s and 1880s. Later that year the San Diego Gas Company completed construction of a gas plant at 10th and M (now Imperial) streets, as well as three miles of gas mains, and by April 1883 a coal gas plant was constructed.

The modern-day San Diego Gas & Electric (SDG&E) power grid was initiated by the Jenney Electric Company, of Indianapolis, Indiana, in 1886. The city contracted Jenney Electric Company to construct an electrical plant at 2nd and J streets. The electrical plant had two 100-horsepower boilers which were able to operate four 30-light direct current arc light generators, allowing for the city's first electric street lights to begin operation in March 1886.

However, in the fall of 1886, Jenney Electric Company went bankrupt and 1886 the electrical plant was purchased by E. S. Babcock and H. L. Story. With Jenney Electric Company's infrastructure, Babcock and Story established the Coronado Gas and Electric Company in January of 1887. Babcock and Story provided electricity to San Diego's street lamps and made plans to supply electricity and gas to Coronado, but due to financial pressures, the Coronado Gas and Electric Company consolidated with the San Diego Gas Company in the spring of 1887, becoming the San Diego Gas, Fuel, and Electric Light Company.

The San Diego Gas, Fuel, and Electric Light Company provided services to many of the early hotels and businesses in downtown San Diego. The company expand its infrastructure and built a new electric generating plant, later becoming known as Station A, at 10th and Imperial streets, next to their gas plant. However, with San Diego's economic decline in the late 1880s, the San Diego Gas, Fuel, and Electric Light Company had more infrastructure than needed, and the city went from a high of 173 electric lights to 120. Throughout the 1890s and early 1900s, competition from other service providers, as well as the need to replace aging infrastructure, resulted in the company not keeping up with the needs of San Diego's growing population. To remedy this, the San Diego Gas, Fuel, and Electric Light Company's prices dropped from $5.00 per cubic foot to $1.50 per cubic foot and constructed an electrical distribution system of 30 miles of pole lines with a total of 1,374 utility poles and a gas distribution system of 41.2 miles.

Expansion of Service 1916-1940

In the early 1900s, the San Diego Gas, Fuel, and Electric Light Company was unable to raise enough capital to match the pace of growth in San Diego, and so in April of 1905 it was sold to H. M. Byllesby & Company of Chicago and incorporated as the San Diego Consolidated Gas & Electric Company (SDCG&E). SDCG&E quickly began expanding infrastructure and provided gas and electric services to University Heights, La Jolla, Pacific Beach, Coronado, and National City. By 1911, SDCG&E's gas service reached Chula Vista and its electrical services reached Grossmont, El Cajon, Lakeside, Santee, and Spring Valley. The following year gas service reached Lemon Grove and electrical service reached Sunnyside, Bonita, Nestor, and Palm City. Imperial Beach and San Ysidro were added in 1913. The expansion of the power grid to these communities increased their agricultural output providing an efficient way to pump water for irrigation and the beginning of the large chicken and turkey hatchery business in the County.

SDCG&E's infrastructure expansion within San Diego County began in 1916, when the company purchased the Oceanside Electric and Gas Company and connected the company's transmission line to Del Mar and beyond to Oceanside. By 1918, the transmission line was expanded beyond its northern most point in Oceanside to San Juan Capistrano, and tying in to SCE's system. In 1919, San Diego's City Council voted to contract with SDCG&E to build a power line for the construction of Barrett Dam, near Campo. However, this rapid growth in distribution capacity strained SDCG&E's production infrastructure and in 1920 they bought a second generating station, known as Station B, located at the southwest corner of Kettner and Broadway. In just 15 years, from the start of the Byllesby Group's control of SDCG&E in 1905 to 1920, it had grown exponentially. By 1920, SDCG&E served more than four times the number of customers than in 1905.

In 1921, construction began on an additional power plant known as Station C located at 4th and Ash streets to furnish all commercial direct current within the city and alternating current to the underground and overhead district north of Broadway and west of Balboa Park. In 1922, a 16-mile-long 88 kV transmission line from the Escondido Mutual Water Company's Power Plant on the Rincon Reservation was constructed through the San Luis Rey River Canyon to the Henshaw Dam to secure the County's power supply. The construction of the line marked the start of large scale expansion of services into the back country of San Diego County. The rough terrain across the backcountry was previously thought of as impassable, but Type – W poles, a light weight style of wooden poles, were used to aid construction across the seemingly inaccessible county. Also at Rincon in 1923, SDCG&E connected its transmission lines to the Southern Sierras Power Company in the Imperial Valley to provide protection of continuous service in the Imperial Valley. In 1923, a total of $3,685,255 was spent on improvements across SDCG&E's territory which at that time reached Fallbrook, Henshaw Dam, Otay Dam, and Barrett Dam.

To keep pace with the growth of customers, SDCG&E began construction on a new power plant, Station B, in 1928, which was planned to house a 28,000 kW electrical generator, the largest ever installed in San Diego (Raymond, 1928a). During the end of the 1920s, SDCG&E constructed new tie lines for transmission outside the city center and into more rural and remote parts of San Diego County. SDCG&E relocated the 66 kV transmission line between San Juan Capistrano and San Onofre, and extended existing transmission lines to include customers in Tijuana, and in El Monte. With the onset of the Great Depression in 1929, SDCG&E's holdings continued to expand with the purchase of the South Coast Gas Company which served Carlsbad and Oceanside, and the purchase of a share of the power produced by the Boulder Dam.

San Diego Gas and Electric Company 1940–Today

In 1935, the Public Utility Holding Act passed, which changed the ownership rules of holding companies and forced them to integrate and coordinate their utility systems. As a result, SDCG&E was forced to offer the sale of stock and was renamed the San Diego Gas & Electric Company. SDCG&E had been owned by Engineering and Management Company since 1905, and was sold in 1940 to the Standard Gas and Electric Company, a subsidiary of the Standard Power and Light Corporation. After the formation of SDG&E, the company became largely an independent organization, locally managed and mostly locally owned.

The 1940s was a time of huge expansion for SDG&E, mainly due to San Diego's large military presence and the population surge it brought. Electrical sales in 1941 jumped 27 percent and SDG&E's electrical grid peaked at 24 percent above the year prior. During World War II, maintenance across SDG&E's system fell due to a labor shortage, but maintaining a constant and reliable source of electricity became even more important to the war effort. Several new transmission lines were constructed to provide interconnections with SCE, to prevent a loss of power across southern California.

Much of the growth of SDG&E's transmission and distribution system in the 1940s was focused on connecting new customers in outlying areas where SDG&E distribution lines had not yet reached. The government supported expanding the grid to the rural areas of the county as farming districts were encouraged to produce more food for the war effort, which increased the demand

for electricity to support additional irrigation. In 1945, SDG&E earmarked $8 million dollars for expansion to update their generators, improve distribution lines, and extend distribution lines to rural areas, such as Borrego Springs. By the late 1940s, more than 1,741 miles of utility lines were added to SDG&E's distribution system, mainly in rural areas.

Through the 1950s, additional expansion took place on pace with the growth of population in San Diego County. Additional power stations were constructed, including the Encina Power Plant at Carlsbad, which began operating in 1954. The company also updated other power stations and expanded the gas distribution system. After the rapid expansion of service during the post-World War II period, SDG&E began research into alternative forms of energy from nuclear power in the 1960s, to solar and wind power in the 1990s. From the post-war period onward SDG&E worked to modernize its power grid to meet increased electricity needs across San Diego County.

Methodology and Known Resources

The following discussion regarding the identification of known cultural resources within the study area as further described below in the Cultural Resources Surveys section is based on the following documents: *Archaeological Survey Report for TL6975 Escondido to San Marcos New 69kV TL, San Diego County, California*, prepared by NWB Environmental Services, LLC. (Hector and Tansey, 2015); *Supplemental Cultural Resources Survey Report for TL 6975 Escondido to San Marcos 69kV Transmission Line, San Diego County, California*, prepared by ICF (McGinnis, 2017); *Supplemental Cultural Resources Subsurface Survey Report for TL 6975 San Marcos 69kV Transmission Line, San Diego County, California*, prepared by ICF (Droessler, 2017); *Historical Resources Inventory and Evaluation Report for TL 6975: San Marcos to Escondido Project, San Diego, County, California*, prepared by ICF (Yates et al., 2018); and *Letter Report: eTS 28798—Supplemental Cultural Resources Survey Report for TL 6975 San Marcos to Escondido Project, Proposed Coupon Test Station #3, San Diego County, California* prepared by ICF (Cox, 2019).

Records Searches

A cultural resources records search for the Project was conducted in 2014 at the California Historical Resources Information System (CHRIS) South Coastal Information Center (SCIC) housed at San Diego State University. The records search included a review of all previously recorded cultural resources and previous investigations within a 0.5-mile radius of the Project alignment. Supplemental records searches were conducted in 2016, 2017, and 2018 to capture modifications in the Project design during the intervening time.

The records searches indicate that 194 cultural resources have been previously recorded within 0.5 mile of the Project alignment. Of these 194 resources, 15 (P-37-004495, -004499, -005501, -007306, -009047, -010550, -010551, -011442, -012209, -255575, -017514, -031871, -032160, -033103, and -033635) are within the Project study area. Of these 15 resources, nine are prehistoric archaeological sites (P-37-004495, -004499, -005501, -007306, -010550, -010551, -012209, -255575, and -032160), one is a multicomponent archaeological site (P-37-011442), two are historic architectural resources (P-37-031871 [ranch complex] and -033635 [road segment]), and three are prehistoric isolates (P-37-009047, -017514, and -033103). A detailed description of each site is provided under Resource Descriptions below.

Cultural Resources Surveys

Cultural resources surveys of the Project alignment were conducted in February, March, and April 2015. Supplemental cultural resources surveys of the Project alignment were also conducted in February and March 2017, as well as June and December 2018.

The 2015 and 2017 cultural resources survey area comprised the Project's centerline plus a 150-foot buffer on each side of the centerline (i.e., the study area). Additionally, each pole location, associated anchor locations, cleared work areas, and staging areas were inspected. The mapped locations of the previously recorded cultural resources identified within the Project alignment by the records search were revisited. Of the 15 previously recorded resources, four (P-37-007306 [prehistoric archaeological site], -012209 [prehistoric archaeological site], -031871 [ranch complex], and -033635 [road segment]) were re-identified as part of the survey. The mapped locations of 10 resources were inspected, but were located within paved and/or developed areas and have either been destroyed or otherwise obscured by the development. The remaining resource consists of archaeological deposits associated with P-37-032160 (prehistoric habitation site). These deposits were capped during development of the surrounding area and, although the resource was not visible during the survey, it is known to contain intact archaeological deposits. Two new resources consisting of a historic-period refuse scatter (P-37-034831) and a lithic scatter (TL-6975-S-5) were also documented as part of the cultural resources surveys.

The June 2018 cultural resources survey was conducted to document six existing electrical infrastructure components that are historical architectural resources located within the study area including San Marcos Substation, Escondido Substation, TL 680/C, TL 13811/13825, TL 13811A, and Harmony Grove Road to Escondido Substation alignment.

The December 2018 cultural resources survey was conducted for the location of coupon test station 3 in San Marcos near the intersection of West San Marcos Boulevard and Via Vera Cruz, which was added to the Project after the initial studies were conducted. The survey did not identify any cultural resources within a 150-foot radius around that proposed location.

Resource Descriptions

The following provides details regarding the 15 previously recorded resources indicated in the records search and the eight newly recorded cultural resources located within the study area identified as a result of the cultural resources surveys, summarized in **Table 3.5-1**. Of these 23 resources, 17 are located within the SDG&E ROW (P-37-004495, -004499, -005501, -007306, -009047, -010551, -017514, -025575, -031871, -032160, -033635, -034831, TL-6975-S-5, San Marcos Substation, Escondido Substation, TL 680C, and Harmony Grove Road to Escondido Substation Transmission Line) and six are located within 150 feet of the Project centerline (P-37- 010550, -011442, -012209, -033103, and TL 13811/13825, and TL 13811A).

TABLE 3.5-1
RESOURCES WITHIN AND ADJACENT TO THE STUDY AREA

Primary # (P-37-)	Permanent Trinomial (CA-SDI-)[1]	Temporary Identifier	Site Description	Date Recorded	California Register of Historical Resources Eligibility	Distance from the Study Area (150-foot buffer on either side of Project alignment)	Comments
004495	4495	-	Prehistoric archaeological site: lithic quarry	1975	Recommended CRHR eligible	Within	Inaccessible during survey due to fence line
004499	4499	-	Prehistoric archaeological site: lithic quarry	1975	Recommended CRHR eligible	Within	Inaccessible during survey due to fence line
005501	5501	-	Prehistoric archaeological site: bedrock milling features	1978	Recommended Not eligible	Within	Not relocated; presumed destroyed or obscured by development
007306	7306	-	Prehistoric archaeological site: lithic scatter	1979	Not evaluated	Within	Relocated
009047	-	-	Prehistoric isolate: shell fragment	1981	Recommended Not eligible	Within	Not relocated; presumed destroyed or obscured by development
010550	10550	-	Prehistoric archaeological site: lithic scatter	1985	Recommended Not eligible	75 feet	Not relocated; presumed destroyed or obscured by development
010551	10551	-	Prehistoric archaeological site: lithic scatter	1985	Recommended Not eligible	Within	Not relocated; presumed destroyed/obscured by development
011442	11442	-	Multicomponent archaeological site: prehistoric lithic scatter and historic-period refuse scatter	1989	Not evaluated	80 feet	Relocated; partially destroyed by San Elijo Rd
012209	12209	-	Prehistoric archaeological site: village site	1978	Recommended CRHR eligible	75 feet	Relocated; as previously described
017514	-	-	Prehistoric isolate: quartz fragment	1999	Recommended Not eligible	Within	Not relocated; presumed destroyed/obscured by development
025575	16988	-	Prehistoric archaeological site: temporary campsite	2004	Recommended Not eligible	Within	Not relocated; presumed destroyed/obscured by development

[1] Trinomials are unique identifiers assigned to archaeological sites by the California Office of Historic Preservation. These identifiers include a two letter state identifier, a three-letters county identifier, and one or more sequential digits representing the order in which the site was listed in that county

TABLE 3.5-1 (CONTINUED)
RESOURCES WITHIN AND ADJACENT TO THE STUDY AREA

Primary # (P-37-)	Permanent Trinomial (CA-SDI-)[2]	Temporary Identifier	Site Description	Date Recorded	California Register of Historical Resources Eligibility	Distance from the Study Area (150-foot buffer on either side of Project alignment)	Comments
031871	-	-	Historic architectural resource: ranch house and outbuildings	2009	Not evaluated	Within	Relocated
032160	20363	-	Prehistoric archaeological site: habitation site	2010	Recommended CRHR eligible	Within	Relocated
033103	-	-	Prehistoric isolate: two flakes	2013	Recommended Not eligible	90 feet	Not relocated; presumed destroyed/obscured by development
033635	21128	-	Historic architectural resource: road segment	2014	Recommended Not eligible	Within	Relocated
034831	21674	TL-6975-S-4	Historic-period archaeological site: refuse scatter	2017	Not evaluated	Within	Newly identified
-	-	TL-6975-S-5	Prehistoric archaeological site: lithic scatter	2017	Not evaluated	Within	Newly identified
-	-	San Marcos Substation	Historic architectural resource: substation	2018	Recommended not eligible	Within	Newly identified
-	-	Escondido Substation	Historic architectural resource: substation	2018	Recommended not eligible	Within	Newly identified
-	-	TL 680C	Historic architectural resource: transmission line	2018	Recommended not eligible	Within	Newly identified
-	-	TL 13811/13825	Historic architectural resource: transmission line	2018	Recommended not eligible	30 feet	Newly identified
-	-	TL 13811A	Historic architectural resource	2018	Recommended not eligible	30 feet	Newly identified
-	-	Harmony Grove Road to Escondido Substation Transmission Line	Historic architectural resource: transmission line	2018	Recommended not eligible	Within	Newly identified

[2] Trinomials are unique identifiers assigned to archaeological sites by the California Office of Historic Preservation. These identifiers include a two letter state identifier, a three-letters county identifier, and one or more sequential digits representing the order in which the site was listed in that county

P-37-004495: This resource is a prehistoric archaeological site originally recorded in 1975 as a 2-acre lithic quarry containing hearth features, millions of flakes, thousands of cores, and many hammerstones. In 2000, the site was updated and was found to be partially destroyed by the development of the San Elijo Landfill which overlaps the site's southern boundary. The site was revisited as part of the cultural resources surveys conducted for the Project, but much of the site was fenced off and inaccessible. The mapped location of the site encompasses an existing parking lot that would be used for staging, and is bisected by an existing access road that would be used to access the Project alignment. Resource P-37-004495 may be eligible for listing in the CRHR, but has not been formally evaluated. (McGinnis, 2017)

P-37-004499: This resource is a prehistoric archaeological site originally recorded in 1975 as a 14-acre lithic quarry site consisting thousands of flakes, preforms, utilized flakes, several hammerstones, and battered nodules. In 2000, the site was updated and was found to overlap the eastern boundary of P-37-004495. Because P-37-004495 and -004499 overlap and are functionally similar, ICF recommended combining the two sites within a single boundary. The mapped location of the site overlaps a portion of Segment 3 and encompasses existing dirt access roads that would be used to access the Project alignment. Resource P-37-004499 may be eligible for listing in the CRHR, but has not been formally evaluated. (McGinnis, 2017)

P-37-005501: This resource is a prehistoric archaeological site originally recorded in 1978 as a bedrock milling feature consisting of two slicks on one exposed granitic boulder. The mapped location of the site was visited during the cultural surveys conducted in support of the Project, and was found to be located within a developed industrial park. The site is presumed to have been destroyed during development of the industrial park. The mapped location of the site encompasses the location of a proposed guard structure. The site has been previously recommended ineligible for listing in the CRHR due to its likely destruction. (McGinnis, 2017)

P-37-007306: This resource is a prehistoric archaeological site originally recorded in 1979 as a moderately dense lithic scatter covering a 150- by 30-meter area (McGinnis, 2017). The mapped location of the site was inspected as part of the cultural resources surveys conducted in support of the Project and one serrated quartzite blade and one groundstone were identified. The mapped location of the site encompasses a dirt road that would be used to access the Project alignment. Resource P-37-007306 has not been previously evaluated for listing in the CRHR.

P-37-009047: This resource is a prehistoric isolate originally recorded in 1981 as a *Chione* shell fragment. The mapped location of the isolate, which is located in a graded lot, was inspected as part of the cultural resources surveys conducted in support of the Project, but no evidence of the isolate or any other cultural materials were noted (McGinnis, 2017). The mapped location of the resource is within a proposed staging yard. This resource has not been previously evaluated for listing in the CRHR.

P-37-010550: This resource is a prehistoric archaeological site originally recorded in 1985 as an artifact scatter consisting of lithic debitage, one core, one scraper, and one fragment of shell within a 335- by 49-meter area. The mapped location of the site, which is located within an existing industrial park, was inspected as part of the cultural resources survey conducted in

support of the Project, but no evidence of the site could be detected. It is presumed that the site was destroyed during the construction of the industrial park. The mapped location of the site is within 75 feet of a Project staging yard. The site has been previously recommended ineligible for listing in the CRHR due to its likely destruction. (McGinnis, 2017)

P-37-010551: This resource is a prehistoric archaeological site originally recorded in 1985 as a light-density artifact scatter consisting of debitage, one hammerstone, and two fragments of shell within a 79- by 49-meter area. The mapped location of the site, which is bisected by a four-lane road, was inspected as part of the cultural resources surveys conducted in support of the Project, but no evidence of the site could be detected. It is presumed the site was destroyed as part of the road construction. The site overlaps a Project stringing area, as well as a proposed pole replacement location. The site has been previously recommended ineligible for listing in the CRHR due to its likely destruction. (McGinnis, 2017)

P-37-011442: This resource is a multicomponent archaeological site originally recorded in 1989. The site's prehistoric component consists of an artifact scatter comprised of shell, lithics, and formed tools. The site's historic-period component consists of a refuse scatter comprised of amethyst and aqua glass fragments, as well as tin can and white ware fragments. The mapped location of the site was inspected as part of the cultural resources survey conducted in support of the Project. The eastern portion of the site is located within San Elijo Road and is presumed to have been destroyed, but the site's western half remains intact. The mapped location of the site is approximately 80 feet from the Project alignment where overhead work would occur during Project implementation. The site has not been previously evaluated for listing in the CRHR. (McGinnis, 2017)

P-37-012209: This resource is a prehistoric archaeological site originally recorded in 1979 as a lithic scatter. The site record for the resource includes transcribed notes from an early 20th century analysis of the site, which is described as containing bedrock mortars, pictographs, and stone walled rooms. In 1991 and 2001, the site was revisited and found to contain two discrete loci (Locus 1 and Locus 2) on two separate hills, both containing a number of bedrock milling features, lithic debitage, and pictograph panels. In 2010, the site was subject to intensive subsurface testing that included the excavation of 87 test excavation units (TEUs) at Locus 1 and 90 TEUs at Locus 2. The excavations identified a substantial subsurface deposit largely associated with late prehistoric occupation of the site. Based on the results of the testing, the site was found to be CRHR eligible due to its data potential (Criterion 4; see *Regulatory Framework Section* a detailed discussion of the CRHR criteria) and a data recovery program, which included the excavation of an additional 218 TEUs at Locus 1, was initiated in 2015. The data recovery excavations resulted in the recovery of more than 156,000 artifacts, relocation of pictographs, and recovery of human remains. The site was inspected as part of the cultural resources surveys conducted in support of the Project, and was found to match the description provided as part of the data recovery excavation undertaken in 2015. The site is located approximately 90 feet from a proposed guard structure installation. (McGinnis, 2017)

P-37-017514: This resource is a prehistoric isolate consisting of an angular piece of quartz recorded in 1999. The mapped location of the isolate, which is located in a developed industrial

park, was inspected as part of the cultural resources surveys conducted in support of the Project, but no evidence of the isolate could be detected (McGinnis, 2017). The mapped location of the isolate is within 20 feet of an existing dirt road that would be used during Project implementation. This resource has not been previously evaluated for listing in the CRHR.

P-37-025575: This resource is a prehistoric archaeological site recorded in 2004 as a temporary campsite consisting of lithic debitage, bedrock milling features, faunal remains, and fire affected rock. In 2004, the site was subject to subsurface testing to evaluate its eligibility for listing in the CRHR. The testing included the excavation of 10 shovel test probes (STPs) and one TEU. As a result of the testing, 384 artifacts were recovered. The mapped location of the site was visited a part of the cultural resources surveys and was found to be located within vacant lots previously graded for the development of business parks. No cultural materials associated with the site were identified and the site is presumed to be destroyed. The site overlaps two proposed staging yards. The 2004 subsurface testing resulted in a recommendation that the site is ineligible for listing in the CRHR. (McGinnis, 2017)

P-37-031871: This resource is a historic architectural resource originally recorded in 2010 as the Vigilante Ranch complex which comprises a residence constructed in 1914 and several outbuildings. The mapped location of the resource, which is surrounded by existing sand mining operations, was visited as part of the Project cultural resources surveys, and was found to match the description provided in the 2010 documentation. The resource is located within a proposed staging yard and has not been previously evaluated for listing in the CRHR. (McGinnis, 2017)

P-37-032160: This resource is a prehistoric archaeological site identified in 2001 during construction monitoring (McGinnis, 2017). After its initial discovery, the site was subject to subsurface testing, which included the excavation of STPs, TEUs, and trenches to determine the site's horizontal and vertical extents. The testing resulted in the recovery of lithics, ground stone, shell, fire-affected rock, bone, and ochre (McGinnis, 2017). After the excavation, the site was capped under at least 6 inches of sterile soil, leaving much of the site's deposits intact and undisturbed. The mapped location of the site was visited during the cultural resources surveys conducted in support of the Project and no evidence of the site could be detected on the surface. However, subsurface testing was carried out within the portions of the site that overlap the Project. The testing included the excavation of 12 STPs, which resulted in the recovery of cultural materials from depths as deep as 150 cm (Droessler, 2017). Identified artifacts and features include midden soils, fragments of shell (*Ostrea* and *Argopecten*), faunal remains, metavolcanic flakes, three bifacial mano fragments, one metavolcanic core/hammerstone, and a metavolcanic core tool (Droessler, 2017). The site overlaps and area of the Project where pole replacements would occur. The site has been previously recommended eligible for listing in the CRHR due to the data potential (Criterion 4) of its intact subsurface deposits.

P-37-033103: This resource is a prehistoric isolate consisting of two metavolcanic flakes recorded in 2013. The mapped location of the resource, which is located within a graded lot, was inspected as part of the cultural resources surveys conducted in support of the Project, but no evidence of the isolate was detected. The resource is presumed to have been destroyed when the lot was graded. This resource has not been previously evaluated for listing in the CRHR.

P-37-033635: This resource is a historic architectural resource originally recorded in 2014 as an 850-foot-long orphaned road segment. The road segment appears to coincide with a road depicted in an 1879 plat map, but was paved sometime in the mid-20th century and bypassed when San Elijo Road was realigned between 2004 and 2005. The road segment has been re-paved and widened over the years and appears to be currently used as an access road for the existing transmission alignment. The road segment was visited as part of the cultural resources surveys conducted in support of the Project and was found to match previous descriptions. The resource encompasses a portion of the Project where stringing areas would be established, and an access road branching from the resource locale would be constructed. Resource P-37-033635 has been previously recommended ineligible for listing in the CRHR. (McGinnis, 2017)

P-37-034831: This resource is a newly recorded historic-period archaeological site consisting of scattered brick and debris. The resource is located within a portion of the Project alignment where no ground disturbing activities are proposed. Resource P-37-034831 has not been evaluated for listing in the CRHR. (McGinnis, 2017)

TL-6975-S-5: This resource is a newly recorded prehistoric archaeological site consisting of a lithic reduction area. The resource straddles an existing dirt road that would be used to access the Project alignment during Project implementation. Resource TL-6975-S-5 has not been evaluated for listing in the CRHR. (McGinnis, 2017)

San Marcos Substation: This resource is a newly recorded historic architectural resource consisting of the active San Marcos Substation facility. The substation occupies an approximate 1.5-acre property in the City of San Marcos at the eastern terminus of Segment 1. As indicated by historic aerial photographs, the substation was constructed by SDG&E in the late 1960s. The facility is surrounded by concrete block walls or fencing. Two power lines access the station, one from the southeast and one from the southwest. The lines connect to steel portals (or racks). The facility contains typical elements of a substation, including transformers, circuit breakers, switches, busbars, and other equipment subject to alteration and replacement over the last 50 years. The substation has three modest-sized rectangular-plan utilitarian buildings and several smaller enclosed utilitarian structures. The buildings have no windows, save for vision lights at some entry doors, and they lack any sort of architectural expression. They are entirely commonplace examples of latter-20th-century substation construction. The San Marcos Substation has been recommended ineligible for listing in the CRHR. (Yates et al., 2018)

Escondido Substation: This resource is a newly recorded historic architectural resource consisting of the active Escondido Substation facility. The substation occupies an approximate 5-acre square area within the City of Escondido, at the northern terminus of Segment 3. The substation appears to have been established circa 1950 and increased in area by 1967. SDG&E improved and expanded the substation substantially thereafter, likely within a few years after 1967 given the growth that occurred in the area at that time. The terraced site is entirely surrounded by security fences. Eleven power lines access the facility, mostly from the south. This substation contains a number of transformers, circuit breakers, switches, busbars, capacitor banks, and other equipment that has been subject to alteration and replacement over the last 50 years. The facility also contains five rectangular-plan utilitarian buildings, as well as multiple smaller

enclosed utilitarian structures. One of the buildings has exposed concrete block walls. Others have metal siding and roofing. Entirely lacking in architectural expression, the buildings and enclosed structures are commonplace examples of late 20th century substation construction. The Escondido Substation has been recommended ineligible for listing in the CRHR. (Yates et al., 2018)

TL 680C: This resource is a newly recorded historic architectural resource consisting of a transmission line. Originally a distribution line and currently classified as a power line, TL 680C is an active facility occupying a 2.57-mile segment of Segment 1. The transmission line contains 46 existing structures, reaching heights of up to 80 feet. Of the 46 structures, 36 of these are wood and steel poles that carry the circuits, the remaining 10 structures are wood or steel support poles. Each pole structure consists of a central pole of wood or steel construction, sets of cross arms, insulators, and other electrical equipment as needed. The transmission line has been in use for over 50 years; however, most of the poles carrying TL 680C have been replaced during the last 49 years. Only two of TL 680C's poles are 50 years old or older, having been installed in 1964 and 1967. Two others were installed between 1969 and 1973. Pole cards and field inspection indicate that all other poles were all installed within the last 44 years; most of these date to the 1980s and 1990s. TL 680C has been recommended ineligible for listing in the CRHR. (Yates et al., 2018)

TL 13811/13825: This resource is a newly recorded historic architectural resource consisting of a transmission line. TL 13811/13825 is comprised of 20 steel poles ranging from 60 to 70 feet high, most with three pairs of horizontal cross arms. This power line alignment is over 50 years; however, all of the existing TL 13811/13825 poles within the Project alignment are less than 50 years old. The resource is parallel to and within 30 feet of Segment 2 of the Project alignment. Due to the age of the poles, TL 13811/13825 has been recommended ineligible for listing CRHR. (Yates et al., 2018)

TL 13811A: This resource is a newly recorded historic architectural resources consisting of a transmission line. The transmission line was constructed in 1959 and comprises 29 steel lattice towers. TL 13811 is located immediately adjacent to Segment 3 of the Project alignment. The resource has been recommended ineligible for listing in the CRHR. (Yates et al., 2018)

Harmony Grove Road to Escondido Substation Transmission Line: This resource is a newly recorded historic architectural resource consisting of a transmission line. The transmission line comprises 13 steel poles and one steel tower. The transmission line overlaps an approximately 1.1-mile portion of Segment 3. Although this transmission line is over 50 years old, all of the poles within the Project alignment between Harmony Grove Road and Escondido Substation are under 50 years old. The resource has been recommended ineligible for listing in the CRHR. (Yates et al., 2018)

Native American Consultation

As described in Section 3.18, *Tribal Cultural Resources*, CPUC conducted Assembly Bill 52 (AB 52) consultation with, as well as courtesy outreach to (i.e., informal tribal consultation), Native American Tribes to solicit information about resources in the area that might be impacted by the Project. Respondents in these processes include: the San Luis Rey Band of Mission

Indians, the Rincon Band of Luiseno Indians, the Santa Ysabel Band of the Iipay Nation, the Viejas Band of Mission Indians, and the Pala Band of Mission Indians. The following provides several key components of the AB 52 consultations/courtesy outreach as they pertain to the discussion of archaeological resources, while a complete summary of these processes can be found in Section 3.18.

San Luis Rey Band of Mission Indians

Two AB 52 consultation meetings were held between CPUC and the San Luis Rey Band of Mission Indians on April 27, 2018 and July 9, 2018. During the meetings, San Luis Rey representatives provided information on areas generally sensitive for archaeological resources, as well as specific information pertaining to previously recorded archaeological resource P-37-032160, a CRHR-eligible prehistoric archaeological site containing intact subsurface deposits as described above in the Resource Descriptions section. San Luis Rey representatives were present during the initial discovery and excavation of the site (which was not connected with this Project), as well as the subsurface testing carried out in support of the Project. The San Luis Rey representatives stated that the artifacts recovered from P-37-032160 were being held on their behalf and were to be given to the Tribe at a later date. The San Luis Rey representatives indicated that construction monitoring and the preparation and implementation of data recovery plan would constitute appropriate mitigation for impacts that could result from Project-related ground disturbing activities at the site. The San Luis Rey representatives also requested review of the research design to be included in the data recovery plan. Additionally, the San Luis Rey representatives indicated that particular sensitivity for archaeological resources is associated with the portions of the Project alignment along Citracado Parkway, including the entirety of Segment 3 and the easternmost 500 feet of Segment 2.

Rincon Band of Luiseno Indians

One AB 52 consultation meeting was held between CPUC and the Rincon Band of Luiseno Indians on June 12, 2018. During the meeting the Rincon representatives indicated that monitoring would be warranted for Project-related ground-disturbing activities in the vicinity of archaeological sites P-37-032160 and -012209.

Santa Ysabel Band of Iipay Nation

In response to the AB 52 notification letter sent by the CPUC, the Santa Ysabel Band of Iipay Nation, in an email dated July 24, 2018, recommended that Kumeyaay Native American monitors be retained to monitor Project construction, and that avoidance be the primary means of mitigating impacts for prehistoric archaeological resources inadvertently discovered during Project construction.

Viejas Band of Mission Indians

In response to the AB 52 notification letter sent by CPUC, the Viejas Band of Mission Indians responded in a letter stating the Project alignment is located in an area of cultural significance to the Kumeyaay and recommended that the San Pasqual Band of Mission Indians be contacted. The San Pasqual were contacted as part of CPUC's outreach, but no response has been received to date.

Pala Band of Mission Indians

In response to the AB 52 notification letter sent by CPUC, the Pala Band of Mission Indians responded in a letter stating the Project alignment is located outside of the tribe's traditional use area and declined AB 52 consultation. Pala defers to tribal groups in closer proximity to the Project alignment.

3.5.2 Regulatory Setting

Federal

Although there is no federal nexus associated with the Project, the following information regarding federal laws addressing cultural resources is presented to provide context and continuity with State laws.

National Historic Preservation Act

The principal federal law addressing historic properties is the National Historic Preservation Act (NHPA), as amended (54 United States Code of Laws [USC] 300101 et seq.), and its implementing regulations (36 CFR Part 800). Section 106 requires a federal agency with jurisdiction over a proposed federal action (referred to as an "undertaking" under the NHPA) to take into account the effects of the undertaking on historic properties, and to provide the Advisory Council on Historic Preservation (ACHP) and other interested parties an opportunity to comment on the undertaking.

The term "historic properties" refers to "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register" (36 CFR Part 800.16(*l*)(1)). The implementing regulations (36 CFR Part 800) describe the process for identifying and evaluating historic properties, for assessing the potential adverse effects of federal undertakings on historic properties, and seeking to develop measures to avoid, minimize, or mitigate adverse effects. The Section 106 process does not require the preservation of historic properties; instead, it is a procedural requirement mandating that federal agencies take into account effects to historic properties from an undertaking prior to approval.

The steps of the Section 106 process are accomplished through consultation with the State Historic Preservation Officer (SHPO), federally-recognized Indian tribes, local governments, and other interested parties. The goal of consultation is to identify potentially affected historic properties, assess effects to such properties, and seek ways to avoid, minimize, or mitigate any adverse effects on such properties. The agency also must provide an opportunity for public involvement (36 CFR 800.1(a)). Consultation with Indian tribes regarding issues related to Section 106 and other authorities (such as NEPA and Executive Order No. 13007) must recognize the government-to-government relationship between the Federal government and Indian tribes, as set forth in Executive Order 13175, 65 FR 87249 (Nov. 9, 2000), and Presidential Memorandum of Nov. 5, 2009.

National Register of Historic Places

The NRHP was established by the NHPA of 1966, as "an authoritative guide to be used by federal, State, and local governments, private groups and citizens to identify the Nation's historic

resources and to indicate what properties should be considered for protection from destruction or impairment" (36 CFR 60.2) (U.S. Department of the Interior, 2002). The NRHP recognizes a broad range of cultural resources that are significant at the national, state, and local levels and can include districts, buildings, structures, objects, prehistoric archaeological sites, historic-period archaeological sites, traditional cultural properties, and cultural landscapes. As noted above, a resource that is listed in or eligible for listing in the NRHP is considered "historic property" under Section 106 of the NHPA.

To be eligible for listing in the NRHP, a property must be significant in American history, architecture, archaeology, engineering, or culture. Properties of potential significance must meet one or more of the following four established criteria:

1. Are associated with events that have made a significant contribution to the broad patterns of our history;
2. Are associated with the lives of persons significant in our past;
3. Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
4. Have yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting one or more of the criteria of significance, a property must have integrity. Integrity is defined as "the ability of a property to convey its significance" (U.S. Department of the Interior, 2002). The NRHP recognizes seven qualities that, in various combinations, define integrity. The seven factors that define integrity are location, design, setting, materials, workmanship, feeling, and association. To retain historic integrity a property must possess several, and usually most, of these seven aspects. Thus, the retention of the specific aspects of integrity is paramount for a property to convey its significance.

Ordinarily religious properties, moved properties, birthplaces or graves, cemeteries, reconstructed properties, commemorative properties, and properties that have achieved significance within the past 50 years are not considered eligible for the NRHP unless they meet one of the "Criteria Considerations" (A-G), in addition to meeting at least one of the four significance criteria and possessing integrity (U.S. Department of the Interior, 2002).

State

California Register of Historical Resources

The State implements the National Historic Preservation Act (NHPA) of 1966, as amended, through its statewide comprehensive cultural resources surveys and preservation programs. The Office of Historic Preservation (OHP), as an office of the California Department of Parks and Recreation, implements the policies of the NHPA on a statewide level. The OHP also maintains the Historic Resources Inventory. The State Historic Preservation Officer (SHPO) is an appointed official who implements historic preservation programs within the State's jurisdictions.

The California Register of Historical Resources (CRHR) is "an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change" (Public Resources Code Section 5024.1[a]). The criteria for eligibility for the CRHR are based upon National Register criteria (Public Resources Code Section 5024.1[b]). Certain resources are determined by statute to be automatically included in the CRHR, including California properties formally determined eligible for, or listed in, the National Register.

To be eligible for the CRHR, a prehistoric or historic-period property must be significant at the local, state, and/or federal level under one or more of the following four criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

A resource eligible for the CRHR must meet one of the criteria of significance described above and retain enough of its historic character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance. It is possible that a historic resource may not retain sufficient integrity to meet the criteria for listing in the National Register, but it may still be eligible for listing in the CRHR.

Additionally, the CRHR consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The CRHR automatically includes the following:

- California properties listed on the National Register and those formally determined eligible for the National Register;
- California Registered Historical Landmarks from No. 770 onward;[3] and,
- Those California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Commission for inclusion on the CRHR.

Other resources that may be nominated to the CRHR include:

- Historical resources with a NRHP Status Code of Category 3 through 5 (those properties identified as eligible for listing in the National Register, the CRHR, and/or a local jurisdiction register);

[3] The current standards for designating a California Historic Landmarks are applied to landmarks #770 and onward. Landmarks designated prior to #770 do not meet the current designation criteria and, therefore, do not qualify has historical resources.

- Individual historical resources;
- Historical resources contributing to historic districts; and,
- Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone.

California Environmental Quality Act

CEQA is the principal statute governing environmental review of projects occurring in the State and is codified at Public Resources Code Section 21000 et seq. CEQA requires lead agencies to determine if a proposed project would have a significant effect on the environment, including significant effects on historical or unique archaeological resources.

Under CEQA (Section 21084.1), a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. An archaeological resource may qualify as an "historical resource" under CEQA. The CEQA Guidelines (Title 14 California Code of Regulations Section 15064.5) recognize that historical resources include: (1) a resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the CRHR; (2) a resource included in a local register of historical resources, as defined in Public Resources Code Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of Public Resources Code Section 5024.1(g); and (3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency's determination is supported by substantial evidence in light of the whole record. The fact that a resource does not meet the three criteria outlined above does not preclude the lead agency from determining that the resource may be an historical resource as defined in Public Resources Code Sections 5020.1(j) or 5024.1.

If a lead agency determines that an archaeological site is a historical resource, the provisions of Section 21084.1 of CEQA and Section 15064.5 of the CEQA Guidelines apply. If a project may cause a substantial adverse change (defined as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired) in the significance of an historical resource, the lead agency must identify potentially feasible measures to mitigate these effects (CEQA Guidelines Sections 15064.5(b)(1) and 15064.5(b)(4)).

If an archaeological site does not meet the criteria for a historical resource presented in the CEQA Guidelines, then the site may be treated in accordance with the provisions of Public Resources Code Section 21083, which establishes requirements for unique archaeological resources. As defined in Public Resources Code Section 21083.2 a "unique" archaeological resource is an archaeological artifact, object, or site, about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information;
- Has a special and particular quality such as being the oldest of its type or the best available example of its type; or,
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If an archaeological site meets the criteria for a unique archaeological resource as defined in Section 21083.2, and the lead agency determines that a project would have a significant effect on unique archaeological resources, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place (Section 21083.1(a)). If preservation in place is not feasible, mitigation measures are required.

The CEQA Guidelines note that if an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment (CEQA Guidelines Section 15064.5(c)(4)).

Assembly Bill 52

A summary of the AB 52 statutes is provided in Section 3.18, *Tribal Cultural Resources*.

California Health and Safety Code Section 7050.5

California Health and Safety Code Section 7050.5 requires that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site, or any nearby area reasonably suspected to overlay adjacent remains, until the County Coroner has examined the remains. If the Coroner determines, or has reason to believe, the remains to be those of a Native American, the Coroner shall contact the NAHC by telephone within 24 hours.

California Public Resources Code Section 5097.98

California Public Resources Code Section 5097.98 provides procedures in the event human remains of Native American origin are discovered during project implementation. It requires that no further disturbances occur in the immediate vicinity of the discovery, that the discovery is adequately protected according to generally accepted cultural and archaeological standards, and that further activities take into account the possibility of multiple burials. It further requires the NAHC, upon notification by a County Coroner, designate and notify a Most Likely Descendant (MLD) regarding the discovery of Native American human remains. Once the MLD has been granted access to the site by the landowner and inspected the discovery, the MLD then has 48 hours to provide recommendations to the landowner for the treatment of the human remains and any associated grave goods.

In the event that no descendant is identified, or the descendant fails to make a recommendation for disposition, or if the land owner rejects the recommendation of the descendant, the landowner may, with appropriate dignity, reinter the remains and burial items on the property in a location that will not be subject to further disturbance.

Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order (GO) 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." The discussion below presents local regulations for informational purposes only.

San Diego County

The San Diego County regulations and policies pertaining to cultural resources can be found in the Conservation and Open Space Element of the *County of San Diego General Plan*. The Board of Supervisors adopted the current version of the *County of San Diego General Plan* on August 3, 2011 (County of San Diego, 2011).

The Conservation and Open Space Element includes two goals that deal with cultural and historic resources. Goal 1 is the protection and preservation of the County's important archaeological resources for their cultural importance to local communities, as well as for their research and educational potential. The County has developed the following six policies to help ensure the protection of the County's resources.

- Preserve important archaeological resources from loss or destruction and require development to include appropriate mitigation to protect the quality and integrity of these resources.
- Require development to avoid archaeological resources whenever possible. If complete avoidance is not possible, require development to fully mitigate impacts to archaeological resources.
- Require the appropriate treatment and preservation of archaeological collections in a cultural appropriate manner.
- Require consultation with affected communities, including local tribes to determine the appropriate treatment of cultural resources.
- Require human remains be treated with the utmost dignity and respect and that the disposition and handling of human remains will be done in consultation with the MLD and under the requirement of Federal, State and County Regulations.
- Coordinate with public agencies, tribes, and institutions in order to build and maintain a central database that includes a notation whether collections from each site are being curated, and if so, where, along with the nature and location of cultural resources throughout the County of San Diego.

Goal 2 is the protection, conservation, use, and enjoyment of the County's important historic resources. The County has developed the following two policies to help ensure the protection of the County's resources.

- Encourage the preservation and/or adaptive reuse of historic sites, structures, and landscapes as a means of protecting important historic resources as part of the discretionary application

process, and encourage the preservation of historic structures identified during the ministerial application process.

- Encourage and promote the development of educational and interpretive programs that focus on the rich multicultural heritage of the County of San Diego.

City of Escondido

General Plan

The City of Escondido General Plan, Resource Conservation Element (2012), contains the following historic resources goal and policies relevant to the Project:

> **Goal 5:** Preservation of important cultural and paleontological resources that contribute to the unique identity and character of Escondido.
>
> > ***Cultural Resources Policy 5.1*:** Maintain and update the Escondido History Sites survey to include significant resources that meet local, state, or federal criteria.
> >
> > ***Cultural Resources Policy 5.2*:** Preserve significant cultural and paleontological resources listed on the national, State, or local registers through: maintenance or development of appropriate ordinances that protect, enhance and perpetuate resources; incentive programs; and/or the development review process.
> >
> > ***Cultural Resources Policy 5.3*:** Consult with appropriate organization and individuals (e.g., South Coastal Information Center [SCIC] of the California Historical Resources Information System [CHRIS], NAHC, Native American groups and individuals, and San Diego Natural History Museum) early in the development process to minimize potential impacts to cultural and paleontological resources.
> >
> > ***Cultural Resources Policy 5.4*:** Recognize the sensitivity of locally significant cultural resources and the need for more detailed assessments through the environmental review process.
> >
> > ***Cultural Resources Policy 5.5*:** Preserve historic buildings, landscapes, and districts with special and recognized historic or architectural value in their original locations through preservation, rehabilitation (including adaptive reuse), and restoration where the use is compatible with the surrounding area.
> >
> > ***Cultural Resources Policy 5.6*:** Review proposed new development and/or remodels for compatibility with the surrounding historic context.
> >
> > ***Cultural Resources Policy 5.7*:** Comply with appropriate local, State, or federal regulations governing historical resources.

Escondido Municipal Code Article 40: Historic Resources

The City of Escondido has established a local register of historic resources (local register) as well as local landmarks. Section 33-794 of Article 40 of the Escondido Municipal Code provides the following guidance on the criteria for local register listing and local landmark designation:

> Prior to granting a resource local register or historical landmark status, the City council shall consider the definitions for historical resources and historical districts and shall find that the resource conforms to one (1) or more of the criteria listed in this section. A

structural resource proposed for the local register shall be evaluated against criteria number one (1) through seven (7) and must meet at least two (2) of the criteria. Signs proposed for the local register shall meet at least one (1) of the criteria numbered eight (8) through ten (10). Landscape features proposed for the local register shall meet criterion number eleven (11). Archaeological resources shall meet criterion number twelve (12). Local register resources proposed for local landmark designation shall be evaluated against criterion number thirteen (13). The criteria are as follows:

(1) Escondido historical resources that are strongly identified with a person or persons who significantly contributed to the culture, history, prehistory, or development of the City of Escondido, region, state or nation;

(2) Escondido building or buildings that embody distinguishing characteristics of an architectural type, specimen, or are representative of a recognized architect's work and are not substantially altered;

(3) Escondido historical resources that are connected with a business or use that was once common but is now rare;

(4) Escondido historical resources that are the sites of significant historic events;

(5) Escondido historical resources that are fifty (50) years old or have achieved historical significance within the past fifty (50) years;

(6) Escondido historical resources that are an important key focal point in the visual quality or character of a neighborhood, street, area or district;

(7) Escondido historical building that is one of the few remaining examples in the city possessing distinguishing characteristics of an architectural type;

(8) Sign that is exemplary of technology, craftsmanship or design of the period when it was constructed, uses historical sign materials and is not significantly altered;

(9) Sign that is integrated into the architecture of the building, such as the sign pylons on buildings constructed in the Modern style and later styles;

(10) Sign that demonstrates extraordinary aesthetic quality, creativity, or innovation;

(11) Escondido landscape feature that is associated with an event or person of historical significance to the community or warrants special recognition due to size, condition, uniqueness or aesthetic qualities;

(12) Escondido archaeological site that has yielded, or may be likely to yield, information important in prehistory;

(13) Escondido significant historical resource that has an outstanding rating of the criteria used to evaluate local register requests. (Ord. No. 2000-23, § 4, 9-13-00; Ord. No. 2008-16, § 4, 7-16-08)

City of San Marcos

The Open Space and Conservation Element of the San Marcos General Plan (2013) provides the following goal and policies relevant to cultural resources.

Goal COS-11: Continue to identify and evaluate cultural, historic, archeological, paleontological, and architectural resources for protection from demolition and inappropriate actions.

***Policy COS-11.1*:** Identify and protect historic and cultural resources including individual properties, districts, and sites (e.g., archaeological sites) in compliance with CEQA.

***Policy COS-11.2*:** Prohibit the demolition or removal of a historic structure without evaluation of the condition of the structure, the cost of rehabilitation, and the feasibility of alternatives to preservation in place including but not limited to relocation, or reconstruction offsite, and/or photo-preservation.

***Policy COS-11.3*:** Identify opportunities for adaptive reuse of historic sites and buildings to preserve and maintain their viability.

3.5.3 Applicant Proposed Measures

SDG&E has proposed the following Applicant Proposed Measures (APMs) to address impacts to cultural resources attributable to Project construction, operations, and/or maintenance. Based on the following impact analyses, in instances where certain APMs were found not to adequately reduce an impact to a less-than-significant level, those APMs have been superseded by mitigation measures put forth by the CPUC.

APM CUL-1: Prior to the initiation of construction or ground-disturbing activities, all SDG&E contractors and subcontractor personnel will receive training regarding the appropriate work practices necessary to effectively implement the following APMs and comply with the applicable environmental laws and regulations. The training will address the potential for exposing subsurface cultural resources and recognizing possible buried resources. The training will include the procedures to be followed upon discovery or suspected discovery of archaeological materials, including Native American remains, and their treatment.

APM CUL-2: Prior to construction, a qualified archaeological consultant will be retained by SDG&E to complete an analysis and assessment of the potential to disturb resources that were identified during the initial studies from major ground-disturbing activities. The analysis and assessment will be prepared to meet regulatory requirements. Project sites that require testing for a significance determination or data recovery for significant sites, will be treated on a case-by-case basis using all applicable criteria. One area, the San Marcos High School area, has currently been identified as a site that would require further testing and or data recovery.

APM CUL-3: If grading or road improvements are to be conducted along existing access roads that contain unevaluated or NRHP- or CRHR-eligible resources, monitoring by a qualified archaeological monitor will occur where the access road crosses the site or is located within the boundaries of a site. If surface expressions of the site (i.e., artifacts) are present within the road, equipment blades will be lifted when traversing the site. Additionally, all vehicles will remain on existing dirt roads and/or new access routes identified for the Project. If needed, additional overland travel or access routes will be reviewed by SDG&E's Cultural Resource Specialist, and appropriate avoidance measures and monitoring will be implemented.

APM CUL-4: Native American monitoring may be implemented for portions of the Project that have the potential to affect unidentified TCRs. The role of the Native American monitor will be to observe Project construction in mapped sensitive areas and facilitate communication of tribal concerns to the qualified archaeologist, the SDG&E Cultural Resources Specialist, and/or construction personnel and tribal council.

APM CUL-5: A qualified archaeologist will attend preconstruction meetings, as needed, to consult with the excavation contractor concerning excavation schedules, archaeological field techniques, and safety.

APM CUL-6: Known cultural resources that can be avoided will be demarcated as Environmentally Sensitive Areas. Construction crews will be instructed to avoid disturbance of these areas. A qualified archaeological monitor, under the direction of the qualified archaeologist, will monitor ground-disturbing activities in the vicinity of all ESAs and areas determined to have a high potential for buried cultural deposits within the Project Area. The requirements for archaeological monitoring will be noted in the preconstruction training and reiterated at construction tailboards, as appropriate. During construction, if ESA fencing has been established and the possibility of buried cultural deposits is determined to be low after initial ground disturbance, the onsite qualified archaeological monitor may determine that monitoring is no longer required in that area. The archaeologist's and monitor's duties will include monitoring, evaluating any finds, analyzing collected materials, and preparing a monitoring results report conforming to guidelines for Archaeological Resource Management Reports.

APM CUL-7: An archaeological monitoring results report (with appropriate graphics), which describes the results, analyses, and conclusions of the monitoring program, will be prepared and submitted to SDG&E's Cultural Resources Specialist following termination of construction activities in a given area when the monitoring program is no longer required. Any new cultural sites or features encountered will be recorded with the SCIC at San Diego State University.

APM CUL-8: All collected cultural remains will be cataloged and permanently curated with an appropriate institution. All artifacts will be analyzed to identify function and chronology as they relate to the history of the area. Faunal material will be identified as to species.

APM CUL-9: In the event that cultural resources are discovered, the archaeologist will have the authority to divert or temporarily halt ground disturbance to allow evaluation of potentially significant cultural resources. The archaeologist will contact SDG&E's Cultural Resource Specialist at the time of discovery. The archaeologist, in consultation with SDG&E's Cultural Resource Specialist, will determine the significance of the discovered resources. SDG&E's Cultural Resource Specialist must concur with the evaluation procedures to be performed before construction activities are allowed to resume. If the discovery is not significant; no further work is required. For significant cultural resources, preservation in place shall be the preferred manner of mitigating impacts. For resources that cannot be preserved in place, a Research Design and Data Recovery Program will be prepared and carried out to mitigate impacts.

3.5.4 Environmental Impacts

Discussion

a) Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines §15064.5: *LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.*

Construction

The cultural resource studies conducted in support of the Project identified 23 cultural resources within 150 feet of the centerline of the Project alignment or within the footprints of Project components. These resources include eight historic architectural resources (P-37-031871 [ranch complex] and -033635 [road segment], San Marcos Substation, Escondido Substation, TL 680C, TL 13811/13825, TL 13811A, and Harmony Grove Road to Escondido Substation transmission line) and 15 archaeological resources. Of the 15 archaeological resources, 10 are prehistoric archaeological sites (P-37-004495, -004499, -005501, -007306, -010550, -010551, -012209, -025575, -32160, and TL-6975-S-5), one is a historic-period archeological site (P-37-034831), one is a multicomponent archaeological site (P-37-011442), and three are prehistoric isolates (P-37-009047, -017514, and -033103).

Of the eight historic architectural resources, seven (P-37-033635 [road segment], San Marcos Substation, Escondido Substation, TL 680C, TL 13811/13825, TL 13811A, and Harmony Grove Road to Escondido Substation transmission line) are recommended ineligible for listing in the CRHR and do not qualify as historical resources pursuant to CEQA. The remaining one resource, P-37-031871 (ranch complex) has not been previously evaluated for listing in the CRHR and, therefore, has the potential to qualify as a historical resource pursuant to CEQA. Resource P-37-031871 is located within a Project staging yard that would be used for the temporary storage of equipment and material. Use of the staging yard would not demolish, destroy, or otherwise alter P-37-031871. Therefore, the Project would not have the potential to cause a substantial adverse change in its significance.

Of the 15 archaeological resources, four prehistoric sites (P-37-004495, -004499, -012209, and -032160) have been previously recommended eligible for listing in the CRHR, and therefore qualify as historical resources pursuant to CEQA. Three of these resources (P-37-004495, -004499, and -032160) overlap portions of the Project sites and one is located within 80 feet of a proposed guard structure installation (P-37-012209). Resources P-37-004495 and -004499 overlap portions of the Project alignment where a paved parking lot would be used as a staging area and an existing dirt road would be used to access the Project alignment. Resource P-37-032160, which is known to contain significant archaeological deposits, overlaps a portion of the Project alignment where pole replacement would be carried out.

Of the 15 archaeological resources, seven (P-37-005501, -009047, -010550, -010551, -017514, -025575, and -033103) have been previously recommended ineligible for listing in the CRHR and, therefore, do not qualify as historical resources pursuant to CEQA. Of these seven resources, three are prehistoric isolates (P-37-009047, -017514, and -033103) that lack cultural context due to their isolated nature. Because isolated artifacts represent only a single datum, they are unable

to address relevant research questions pertaining to prehistoric subsistence, trade, settlement, and mobility and, therefore, are not considered eligible for the CRHR. One prehistoric archaeological site has been subject to subsurface testing (P-37-025575) that failed to identify intact archaeological deposits and the site was, therefore, recommended ineligible for listing in the CRHR. Three prehistoric archaeological sites (P-37-005501, -010550, and -010551) are presumed to be destroyed by previous development based on the cultural resources surveys conducted for the Project. Although no surface manifestation of these sites exists, no subsurface testing has occurred within the sites to determine the presence/absence of subsurface archaeological deposits. Therefore, there exists the potential that subsurface archaeological deposits associated with these three sites underlie the ground surface. Should subsurface deposits associated with these sites be present, they may be eligible for listing in the CRHR and, therefore, qualify as historical resources pursuant to CEQA. Of these three resources, two are mapped in locations that overlap portions of the Project alignment (P-37-005501 and -010551) where guard structures and new towers would be installed, and one (P-37-010550) is mapped within 75 feet of a proposed staging area.

Of the 15 archaeological resources, two prehistoric archaeological sites (P-37-007306 and TL-6975-S-5), one multicomponent archaeological site (P-37-011442) and one historic-period archaeological site (P-37-034831) have not been previously evaluated for listing in the CRHR and therefore have the potential to qualify as historical resources pursuant to CEQA. Of these resources, three (P-37-007306 [prehistoric site], -034831 [historic-period site], and TL-6975-S-5 [prehistoric site]) are bisected by existing dirt roads that would be used to access the Project alignment and one (P-37-011442 [multicomponent site]) is located within 80 feet of the of an existing dirt road that would be used to access the Project alignment.

In sum, of the 23 documented cultural resources, 11 archaeological sites qualify or have the potential to qualify as historical resources pursuant to CEQA (**Table 3.5-2**). Eight (P-37-004495, -004499, -005501, -007306, -010551, -032160, -034831, and TL6975-S-5) of these are located within the Project alignment and three (P-37-10550, 011442, -012209) are located on, adjacent to, or within 150 feet of the centerline of the Project alignment. Given this proximity to the Project alignment, they may be subject to impacts as a result of Project construction.

In addition to these 11 known archaeological sites that may be impacted by Project construction, unknown subsurface archaeological deposits may underlie the Project alignment where ground disturbing activities would be carried out. Consultation with the San Luis Rey Band of Mission Indians has indicated that portions of the Project alignment in the vicinity of Citracado Parkway, including the entirety of Segment 3 and the easternmost 500 feet of Segment 2, should be considered sensitive for the presence of subsurface archaeological deposits. Should unknown subsurface archeological deposits underlie the Project alignment, they may qualify as historical resources pursuant to CEQA, and could be significantly impacted by Project-related ground disturbance.

TABLE 3.5-2
SUMMARY OF POTENTIAL PROJECT IMPACTS ON HISTORICAL RESOURCES

Primary # (P-37-)	Permanent Trinomial (CA-SDI-)	Temporary Identifier	Site Description	Historical Resource?	Distance from Study Area (150-foot buffer on either side of Project alignment)	Potential for Significant Project Impacts?	Impacts after mitigation
004495	4495	-	Prehistoric archaeological site: lithic quarry	Yes	Within	Yes	Less than significant
004499	4499	-	Prehistoric archaeological site: lithic quarry	Yes	Within	Yes	Less than significant
005501	5501	-	Prehistoric archaeological site: bedrock milling features	Potentially	Within	Yes	Less than significant
007306	7306	-	Prehistoric archaeological site: lithic scatter	Potentially	Within	Yes	Less than significant
009047	-	-	Prehistoric isolate: shell fragment	No	Within	No	NA
010550	10550	-	Prehistoric archaeological site: lithic scatter	Potentially	75 feet	Yes	Less than significant
010551	10551	-	Prehistoric archaeological site: lithic scatter	Potentially	Within	Yes	Less than significant
011442	11442	-	Multicomponent archaeological site: prehistoric lithic scatter and historic-period refuse scatter	Potentially	80 feet	Yes	Less than significant
012209	12209	-	Prehistoric archaeological site: village site	Yes	75 feet	Yes	Less than significant
017514	-	-	Prehistoric isolate: quartz fragment	No	Within	No	NA
025575	16988	-	Prehistoric archaeological site: temporary campsite	No	Within	No	NA
031871	-	-	Historic architectural resource: ranch house and outbuildings	Potentially	No	No	NA
032160	20363	-	Prehistoric archaeological site: habitation site	Yes	Within	Yes	Less than significant
033103	-	-	Prehistoric isolate: two flakes	No	90 feet	No	NA
033635	21128	-	Historic architectural resource: road segment	No	Within	No	NA
034831	21674	TL-6975-S-4	Historic-period archaeological site: refuse scatter	Potentially	Within	Yes	Less than significant
-	-	TL-6975-S-5	Prehistoric archaeological site: lithic scatter	Potentially	Within	Yes	Less than significant
-	-	San Marcos Substation	Historic architectural resource: substation	No	Within	No	NA
-	-	Escondido Substation	Historic architectural resource: substation	No	Within	No	NA

TABLE 3.5-2 (CONTINUED)
SUMMARY OF POTENTIAL PROJECT IMPACTS ON HISTORICAL RESOURCES

Primary # (P-37-)	Permanent Trinomial (CA-SDI-)	Temporary Identifier	Site Description	Historical Resource?	Distance from Study Area (150-foot buffer on either side of Project alignment)	Potential for Significant Project Impacts?	Impacts after mitigation
-	-	TL 680C	Historic architectural resource: transmission line	No	Within	No	NA
-	-	TL 13811/13825	Historic architectural resource: transmission line	No	30 feet	No	NA
-	-	TL 13811A	Historic architectural resource	No	30 feet	No	NA
-	-	Harmony Grove Road to Escondido Substation Transmission Line	Historic architectural resource: transmission line	No	Within	No	NA

To reduce impacts on historical resources, SDG&E proposed APMs CUL-1 through CUL-9 requiring training, monitoring, avoidance, recovery, documentation, etc. The CPUC has determined that these APMs would not reduce or avoid substantial adverse changes in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5 to below the level of significance. Therefore, APMs CUL-1 through CUL-9 are superseded by **Mitigation Measures CUL-1** through **CUL-7**, which identify specific measures and standards that would reduce potential impacts to less than significant.

Mitigation Measure CUL-1: Retention of Qualified Archaeologist. Prior to the start of any ground disturbing activity, a Qualified Archaeologist, defined as an archaeologist meeting the Secretary of the Interior's Standards for professional archaeology (U.S. Department of the Interior, 2008) shall be retained by SDG&E to carry out all APMs and mitigation measures related to archaeological resources.

Mitigation Measure CUL-2: Pre-Construction Cultural Resources Sensitivity Training. Prior to the start of any ground-disturbing activity, the Qualified Archaeologist shall prepare cultural resources sensitivity training materials for use during Project-wide Worker Environmental Awareness Training (or equivalent). The cultural resources sensitivity training shall be conducted by a qualified environmental trainer (often the Lead Environmental Inspector [LEI] or equivalent position) working under the supervision of the Qualified Archaeologist. The Qualified Archaeologist shall determine and ensure the suitability of the qualified environmental trainer. The cultural resources sensitivity training shall be conducted for all construction personnel. Construction personnel shall be informed of the types of archaeological resources that may be encountered, and of the proper procedures to be implemented in the event of an inadvertent discovery of archaeological resources or human remains. SDG&E shall ensure that construction personnel are made available for and attend the training and retain documentation demonstrating attendance.

Mitigation Measure CUL-3: Development and Implementation of Cultural Resources Monitoring Plan. Prior to the start of any Project-related ground disturbing activities the Qualified Archaeologist shall prepare a Cultural Resources Monitoring Plan (CRMP). The CRMP shall stipulate the location and timing of archaeological and Native American monitoring, including, but not limited to, the monitoring of all ground disturbing activities within 250 feet of P-37-032160 and within 100 feet of the remaining 10 archaeological resources (P-37-004495, -004499, -005501, -007306, -010551, -010550, 011442, -012209, -034831, and TL6975-S-5) that have the potential to contain or are known to contain subsurface archaeological deposits, as well as all ground disturbing activities within Segment 3 and the easternmost 500 feet of Segment 2. The CRMP shall include monitoring protocols to be carried out during Project construction. The CRMP shall stipulate that a Native American monitor associated with one or more of the Native American groups that have expressed interest in the Project (i.e. San Luis Rey Band of Mission Indians, Rincon Band of Luiseno Indians, and/or Santa Ysabel Band of the Iipay Nation) be retained to monitor all Project-related ground disturbance stipulated in the CRMP. In preparing the CRMP, the Native American groups that have expressed interest in monitoring shall be consulted regarding the scheduling of monitors. A Native American monitoring schedule shall be incorporated into the CRMP.

The CRMP shall contain an allowance that the Qualified Archaeologist, based on observations of subsurface soil stratigraphy or other factors during initial grading, and in coordination with the Native American monitor(s) and SDG&E, may reduce or discontinue

monitoring as warranted if it is determined that the possibility of encountering archaeological deposits is low. The CRMP shall outline the appropriate measures to be followed in the event of unanticipated discovery of cultural resources during Project implementation, including that all ground disturbance within 100 feet of an unanticipated discovery shall cease until a treatment plan is developed by the Qualified Archaeologist in coordination with SDG&E and the Native American monitor(s) and which will consider the resources archaeological and tribal value. The CRMP shall identify avoidance as the preferred manner of mitigating impacts to cultural resources. The CRMP shall establish the criteria utilized to evaluate the significance (per CEQA) of the discoveries, methods of avoidance consistent with CEQA Guidelines Section 15126.4(b)(3), as well as identify the appropriate treatment to mitigate the effect of the Project if avoidance of a significant resource is determined to be infeasible. The CRMP will also include provisions for the treatment of archaeological sites that qualify as unique archaeological resources pursuant to PRC Section 21083.2, which places limits on the costs of mitigation for unique archaeological resources. The plan shall also include reporting of monitoring results within a timely manner, curation of artifacts and data at an approved facility, and dissemination of reports to local and State repositories. The CRMP shall be submitted to SDG&E and CPUC for review and approval prior to the start of Project-related ground disturbance, as well as to the Native American groups that have expressed interest in the Project (i.e. San Luis Rey Band of Mission Indians, Rincon Band of Luiseno Indians, and/or Santa Ysabel Band of the Iipay Nation) for review and comment.

Mitigation Measure CUL-4: Data Recovery Excavations at P-37-032160. Prior to the start of any Project-related ground disturbing activities within 250 feet of archaeological site P-37-032160, data recovery excavations shall be carried out to collect scientifically consequential data associated with known resource P-37-032160 where Project-related ground disturbing activities including but not limited to pole replacement, trenching, potholing, and AC mitigation well and test station installations will be carried out. Prior to the start of the data recovery excavations, a research design shall be prepared by the Qualified Archaeologist outlining the research questions to be addressed as part of the data recovery, as well as the field and lab methods and any special studies proposed to obtain the scientifically consequential information. The research design shall be submitted to SDG&E and CPUC for review and approval prior to the start of the data recovery excavations, as well as to the San Luis Rey Band of Mission Indians for review and comment. A data recovery report presenting the methods and results of the data recovery excavations shall be prepared and reviewed by the CPUC and SDG&E, and submitted to the San Luis Rey Band of Mission Indians for review and comment. The final data recovery report shall be placed on file at the South Coast Information Center.

Mitigation Measure CUL-5: Exclusionary Fencing. Prior to Project-related ground disturbing activities, exclusionary fencing shall be installed to ensure that the five previously recorded archaeological sites within or immediately adjacent to the Project alignment that have surface manifestations (P-37-004495, -004499, -007306, -012209, and TL6975-S-5) are not inadvertently impacted during Project implementation. The exclusionary fencing shall encompass the mapped site boundaries plus a 25-foot radius to ensure an appropriate buffer is maintained between the sites and Project-related ground disturbing activities. For the four archaeological resources bisected by Project access roads (P-37-004495, -004499, -007306, and TL6975-S-5), the exclusionary fencing shall be established along the shoulder of the existing roads. To ensure avoidance, the exclusionary fencing shall be marked with signs indicating that staff associated with the Project are not to go beyond the limits of the fencing. The exclusionary fencing shall not

identify the protected areas as demarcating archaeological resources in order to discourage unauthorized disturbance, vandalism, or collection of artifacts.

Mitigation Measure CUL-6: Pre-Construction Surveys. Prior to the start of Project-related ground disturbing activities, pre-construction surveys of the four archaeological sites bisected by existing access roads (P-37-004495, -004499, -007306, and TL6975-S-5) shall be conducted to map and collect all artifacts located within the road beds. Artifact mapping shall be conducted using a hand held GPS unit capable of sub-meter accuracy, and the final disposition of the artifacts shall be determined by SDG&E in coordination with the San Luis Rey Band of Mission Indians.

Mitigation Measure CUL-7: Road Maintenance within Archaeological Sites. During Project implementation, routine road maintenance, including but not limited to grading and blading, shall be avoided within the four archaeological sites bisected by existing access roads (P-37-004495, -004499, -007306, and TL6975-S-5). Should maintenance activities such as drainage or culvert repairs be required to stabilize the access road, all ground disturbing activities within 100 feet of the four archaeological sites shall be monitored as stipulated in the CRMP.

Significance after Mitigation: CEQA Guidelines Sections 15064.5(b)(1) and 15064.5(b)(4) require a lead agency to identify feasible measures to mitigate a substantial adverse change in the significance of a historical resource. Mitigation Measures CUL-1 through CUL-7 are feasible measures that would reduce or avoid substantial adverse changes in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5; thus, with implementation of these measures, impacts would be less than significant.

Operations and Maintenance

Project operation and maintenance activities that involve ground disturbance, such as road maintenance and pole brushing, have the potential to impact the 11 known archaeological resources within 150 feet of the Project alignment centerline that are known to contain or have the potential to contain subsurface archaeological deposits that qualify as historical resources pursuant to CEQA. In addition to the known resources, these Project operation and maintenance activities also have the potential to impact unknown archaeological deposits that may underlie the Project alignment. Implementation of **Mitigation Measures CUL-1** through **CUL-7** would reduce potential Project operation and maintenance impacts to known or unknown archaeological deposits that qualify or have the potential to qualify as historical resources pursuant to CEQA to a less-than-significant level.

Implement Mitigation Measures CUL-1 through CUL-7. See full text for these Mitigation Measures under Question a, above.

Significance after Mitigation: CEQA Guidelines Sections 15064.5(b)(1), and 15064.5(b)(4) require a lead agency to identify feasible measures to mitigate a substantial adverse change in the significance of a historical resource. Mitigation Measures CUL-1 through CUL-7 are feasible measures that would reduce or avoid substantial adverse changes in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5; thus, with implementation of these measures, impacts would be less than significant.

b) Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5: *LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.*

Construction

The cultural resource studies conducted in support of the Project identified 15 archaeological resources located within 150 feet of the Project alignment centerline. These resources include 10 prehistoric archaeological sites (P-37-004495, -004499, -005501, -007306, -010550, -010551, -012209, -025575, -32160, and TL-6975-S-5), one historic-period archeological site (P-37-034831), one multicomponent archaeological site (P-37-011442), and three prehistoric isolates (P-37-009047, -017514, and -033103).

Of the 15 archaeological resources, four prehistoric archaeological sites (P-37-004495, -004499, -012209, and -032160) are recommended eligible for listing in the CRHR, qualifying as historical resources (Table 3.5-2). Cultural resources that qualify as historical resources do not qualify as unique archaeological resources (CEQA Guidelines § 15064.5(c)). Therefore, these four prehistoric archaeological sites do not qualify as unique archaeological resources. **Table 3.5-3** lists the remaining 11 archeological resources.

Four archaeological resources, including one prehistoric archaeological site (P-37-025575) and three prehistoric isolates (P-37-009047, -017514, and -033103), do not qualify as unique archaeological resources. Resource P-37-025575, a prehistoric archaeological site, was subject to subsurface testing that failed to identify intact archaeological deposits. The mapped location of the site is within a develop area and no surface manifestation of the site could be identified. Given that no surface manifestation or subsurface deposit were identified, the site has likely been destroyed and, therefore, and does not qualify as a unique archaeological resource. Similarly, the three prehistoric isolates (P-37-009047, -017514, and -033103) lack cultural context due their isolated nature and do not qualify as unique archaeological resources.

Of the remaining seven archaeological resources, two prehistoric archaeological sites (P-37-007306 and TL-6975-S-5), one multicomponent archaeological site (P-37-011442), and one historic-period archeological site (P-37-034831) have not been previously evaluated for listing in the CRHR and it is unknown whether they qualify as historical resources under CEQA. If they do not qualify as historical resources, they may qualify as unique archaeological resources. Three prehistoric archaeological sites (P-37-005501, -010550, and -010551) are presumed to be destroyed and have been recommended ineligible for listing in CRHR. However, these three sites have the potential to contain subsurface archaeological deposits. Should subsurface deposits associated with these sites be present, and should they be found ineligible for listing in the CRHR, they may qualify as unique archeological resources.

Of these seven archaeological sites that have the potential to qualify as unique archaeological resources, four prehistoric archeological sites (P-37-005501, -007306, -010551, and TL6975-S-5) and one historic-period archaeological site (P-37-034831) overlap portions of the Project alignment where staging yards, guard structure installations, pole installation sites, and stringing sites are proposed. Many of these sites are bisected by existing dirt roads that would be used to access the Project alignment. The remaining three archaeological sites, which include one

TABLE 3.5-3
SUMMARY OF PROJECT IMPACT ON UNIQUE ARCHAEOLOGICAL RESOURCES

Primary # (P-37-)	Permanent Trinomial (CA-SDI-)	Temporary Identifier	Site Description	Unique Archaeological Resource?	Distance from Study Area (150-foot buffer on either side of Project alignment)	Potential for Significant Project Impacts?	Impacts after mitigation
5501	5501	-	Prehistoric archaeological site: bedrock milling features	Potentially	Within	Yes	Less than significant
7306	7306	-	Prehistoric archaeological site: lithic scatter	Potentially	Within	Yes	Less than significant
9047	-	-	Prehistoric isolate: shell fragment	No	Within	No	NA
10550	10550	-	Prehistoric archaeological site: lithic scatter	Potentially	75 feet	Yes	Less than significant
10551	10551	-	Prehistoric archaeological site: lithic scatter	Potentially	Within	Yes	Less than significant
11442	11442	-	Multicomponent archaeological site: prehistoric lithic scatter and historic-period refuse scatter	Potentially	80 feet	Yes	Less than significant
17514	-	-	Prehistoric isolate: quartz fragment	No	Within	No	NA
25575	16988	-	Prehistoric archaeological site: temporary campsite	No	Within	No	NA
33103	-	-	Prehistoric isolate: two flakes	No	90 feet	No	NA
34831	21674	TL-6975-S-4	Historic-period archaeological site: refuse scatter	Potentially	Within	Yes	Less than significant
-	-	TL-6975-S-5	Prehistoric archaeological site: lithic scatter	Potentially	Within	Yes	Less than significant

prehistoric archaeological site (P-37-10550) and one multicomponent archaeological site (P-37-011442), are located immediately adjacent to existing access roads, as well as proposed staging yards. Potential impacts to these resources would occur as a result of traffic, road maintenance, and equipment staging, as well as subsurface excavations associated with pole replacement and/or guard structure installation. These seven archaeological resources may qualify as unique archeological resources pursuant to CEQA. Project-related ground disturbance could cause a substantial adverse change in the significance of these resources, which would be a significant impact.

As noted above, unknown subsurface archaeological deposits may underlie the Project alignment, with Segment 3 having been identified as highly sensitive for the presence of subsurface archaeological deposits. Should unknown subsurface archeological deposits underlie the Project alignment, they may qualify as unique archaeological resources pursuant to CEQA, and Project-related ground disturbance could cause a substantial adverse change in the significance of these resources, which would be a significant impact.

To reduce impacts on archaeological resources, APMs CUL-1 through CUL-9 were proposed requiring training, monitoring, avoidance, recovery, documentation, etc. Based on this analysis, the APMs are superseded by **Mitigation Measures CUL-1** through **CUL-7**, which identify specific measures and standards that would reduce potential impacts to less than significant.

> **Implement Mitigation Measure CUL-1 through CUL-7.** See full text for these Mitigation Measures under Question a, above.
>
> **Significance after Mitigation:** CEQA Section 21083.1(a) requires reasonable efforts be made to preserve in place any and all identified unique archaeological resources, as defined in Section 21083.2, that a lead agency has determined would be significantly impacted by a project. Mitigation Measures CUL-1 through CUL-7 present reasonable efforts for the preservation in place of unique archaeological resources pursuant to CEQA Section 21083.1(a); thus, with implementation of these measures, impacts would be less than significant.

Operations and Maintenance

Project operation and maintenance activities that involve ground disturbance, such as road maintenance and pole brushing, have the potential to impact the seven archaeological (P-37-005501, -007306, -010550, -010551, -011442, -034831, and TL-6975-S-5) resources within 150 feet of the Project alignment centerline that have the potential to qualify as unique archaeological resources pursuant to CEQA. In addition to the seven known archaeological resources, Project operation and maintenance activities also have the potential to impact unknown subsurface archaeological deposits underlying the Project alignment that may qualify as unique archaeological resources. Implementation of **Mitigation Measures CUL-1** through **CUL-7** would reduce potential Project operations and maintenance impacts to known or unknown archaeological resources that may qualify as unique archaeological resources pursuant to CEQA to a less-than-significant level.

Implement Mitigation Measure CUL-1 through CUL-7. See full text for these Mitigation Measures under Question a, above.

Significance after Mitigation: CEQA Section 21083.1(a) requires reasonable efforts be made to preserve in place any and all identified unique archaeological resources, as defined in Section 21083.2, that a lead agency has determined would be significantly impacted by a project. Mitigation Measures CUL-1 through CUL-7 present reasonable efforts for the preservation in place of unique archaeological resources pursuant to CEQA Section 21083.1(a); thus, with implementation of these measures, impacts would be less than significant.

c) Disturb any human remains, including those interred outside of dedicated cemeteries: *LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.*

No known human remains exist within the study area. However, human remains were previously identified during archaeological excavation at P-37-012209, which is located within close proximity to the Project. Therefore, Project-related ground-disturbing activities have the potential to unearth, expose, or disturb previously unknown human remains. Implementation of **Mitigation Measure CUL-8** would reduce potential impacts on human remains to less than significant.

Mitigation Measure CUL-8: Inadvertent Discovery of Human Remains. If human remains are uncovered during Project construction, all work within 100 feet of the find shall be immediately halted, and the San Diego County coroner shall be contacted to evaluate the remains, and follow the procedures and protocols set forth in Section 15064.5(e)(1) of the CEQA Guidelines. If the County Coroner determines that the remains are Native American, the County Coroner shall contact the California Native America Heritage Commission (NAHC), in accordance with Health and Safety Code Section 7050.5(c), and Public Resources Code Section 5097.98 (as amended by AB 2641). The NAHC shall then identify a Most Likely Descendant (MLD) of the deceased Native American, who shall then help determine what course of action should be taken in the disposition of the remains.

Per Public Resources Code Section 5097.98, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this section, with the MLD regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.

Significance after Mitigation: California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.98 require protocols to be implemented should human remains be identified during excavation activities. Mitigation Measure CUL-8 includes the requirements as outlined in California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.98, and would reduce potential impacts on human remains to less than significant.

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3.6 Energy

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
6. ENERGY — Would the project:				
a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

This impact analysis evaluates the potential for the Project to result in a substantial increase in energy demand and/or wasteful use of energy during Project construction, operation, and maintenance. The potential impacts are analyzed based on an evaluation of whether construction and operational energy use estimates for the Project would be considered excessive, wasteful, or inefficient. For the purposes of this analysis, the SDG&E service area and California region, including San Diego County, were used as a basis for energy consumption relative to the energy consumed from the Project.

3.6.1 Environmental Setting

San Diego Gas & Electric (SDG&E)

SDG&E is a regulated public utility that provides electric services to approximately 3.6 million customers and natural gas services to approximately 3.3 million customers within a 4,100-square-mile service territory in Southern California that encompasses San Diego County and an adjacent portion of southern Orange County (Sempra Energy, 2017). Operating characteristics of SDG&E's electricity and distribution systems are provided below.

SDG&E Electric Utility Operations

To meet customer demand, SDG&E produces power from its own electric generation facilities and procures it from other suppliers through CPUC-approved purchased-power contracts or through purchases on a spot basis[1] (Sempra Energy, 2017). SDG&E owns and operates two combined-cycle[2] generating facilities: the Palomar Energy Center in Escondido and the Desert Star Energy Center in Boulder City, Nevada. SDG&E owns and operates two peaking plants:[3] Miramar Energy Facility in San Diego and Cuyamaca Peak in El Cajon. SDG&E also utilizes the Otay Mesa Energy Center, which Calpine currently owns and operates, and which currently is the subject of a power purchase tolling agreement[4] with SDG&E. As of December 31, 2017, SDG&E owned 114 megawatts (MW) of battery storage (including 70 MW pending CPUC approval) and

1 Spot basis purchases are agreements reached for immediate sale/purchase.
2 A combined-cycle power plant uses both a gas and a steam turbine together to produce electricity.
3 Peaking plants are small, efficient power units that can reach full generating capacity within approximately 10 to 15 minutes to meet immediate demand on the grid, and run only during periods of extremely high electricity demand.
4 Tolling contracts are purchased-power contracts under which SDG&E provides natural gas for generation to the energy supplier.

contracted approximately 13.5 MW of battery storage (all pending CPUC approval) (Sempra Energy, 2017). In 2017, approximately 48 percent of the energy delivered to SDG&E customers came from renewable energy-related projects (Sempra Energy, 2017). SDG&E's supply as of December 31, 2017, is presented in **Table 3.6-1** below.

TABLE 3.6-1
SDG&E ELECTRIC RESOURCES[a]

Source	Net Operating Capacity (Megawatts MW)	Percent (%) of Total
Owned generation facilities, natural gas[b]	1,193	22
Purchased-power contracts:		
Qualifying facilities:	246	5
Renewables:		
Wind	1,234	23
Solar	1,306	24
Other	53	1
Tolling and other[c]	1,341	25
Total	5,373	100

NOTES:
[a] Excludes approximately 114 MW of battery storage owned (including 70 MW pending CPUC approval) and approximately 13.5 MW of battery storage contracted (all pending CPUC approval).
[b] SDG&E owns and operates four natural gas-fired power plants (Palomar Energy Center, Desert Star Energy Center, Miramar Energy Facility, and Cuyamaca Peak), three of which are in California and one of which is in Nevada.
[c] Includes the Otay Mesa Energy Center.

SOURCE: Sempra Energy, 2017

Service to SDG&E's customers is supported by its electric transmission and distribution system. SDG&E's electric transmission and distribution facilities include substations and overhead and underground lines located in San Diego, Imperial, and Orange counties of California and in Arizona and Nevada. The facilities consist of 2,090 miles of transmission lines, 23,479 miles of distribution lines, and 160 substations. SDG&E facilities near the Project are identified in Chapter 2, Project Description. Periodically, various areas of SDG&E's service territory require expansion to accommodate customer growth, reliability, and safety (Sempra Energy, 2017).

Electricity Consumption

Table 3.6-2 shows electricity consumption by sector in SDG&E's service area. As shown in the table, SDG&E delivered approximately 19 billion kilowatt-hours (kWh) of electricity in 2017 (Sempra Energy, 2017).

TABLE 3.6-2
ELECTRICITY CONSUMPTION IN SDG&E SERVICE AREA (2017)

Residential	Commercial	Industrial	Street and Highway Lighting	Direct Access	Total Usage
All Usage Expressed in Millions of kWh (GWh)					
6,577	6,700	2,189	75	3,394	19,011

SOURCE: Sempra Energy, 2017

In 2017, residential use represented approximately 42 percent of electricity volume (89 percent of total meters), commercial use represented 43 percent (11 percent of total meters), industrial use represented 14 percent (0.03 percent of total meters), and street and highway lighting use represented 0.5 percent (0.1 percent of total meters). Compared to the typical utility in the U.S., SDG&E delivers a higher relative percentage of its total power sold to residential customers, who on average consume less power than an average commercial customer. San Diego's mild climate and SDG&E's energy efficiency programs also contribute to lower consumption by customers. In addition, rooftop solar installations, especially in recent years, have reduced residential and commercial volumes sold by SDG&E. As of December 31, 2017, the residential and commercial rooftop solar capacity in SDG&E's territory totaled 836 MW (Sempra Energy, 2017).

Gasoline, Diesel, and Jet Fuel

Supply

California is nearly self-sufficient with regard to the gasoline and diesel fuel supply, obtaining nearly all of the supply to meet local demand from California refineries. Crude oil is refined to produce a wide array of petroleum products, including gasoline, diesel, and jet fuels. In addition, storage tank capacities at pipeline terminals in California are optimized to accommodate the largest weekly delivery of refined product (gasoline, diesel or jet fuel) that is expected throughout the year (California Energy Commission [CEC], 2014). Refineries in California often operate at or near maximum capacity because of the high demand for petroleum products. When unplanned refinery outages occur, replacement supplies must be brought in by marine tanker from refineries in the State of Washington or on the U.S. Gulf Coast. California requires that all motorists use, at a minimum, a specific blend of motor gasoline called California Reformulated Gasoline (CaRFG) as part of an overall program to reduce emissions from motor vehicles. Refineries in several other countries can also supply CaRFG. However, locating and transporting replacement motor gasoline that conforms to California's strict fuel specifications from overseas can take several weeks (EIA, 2017). As a result, unplanned outages often result in a reduction in supply that causes prices to increase, sometimes dramatically. The severity and duration of these price spikes depend on how quickly the refinery issue can be resolved and how soon supply from alternative sources can reach the affected market (EIA, 2015).

Most petroleum supply disruptions or shortage events are resolved by the energy industry before they become significant (NASEO, 2018). An extended refinery outage occurred in February 2015 due to a fire and explosion at ExxonMobil's Torrance, California, refinery that resulted in price spikes due to long lead times and higher prices of imported supplies. Other periods of price spikes have occurred in California, most notably in 2008, 2009, and 2012, that were similar in duration and magnitude to the 2015 supply disruption, and resulted in price increases that persisted for an average of eight weeks and took an average of two weeks to be passed through to retail prices (EIA, 2015). However, there are instances where the severity and scope of disasters require additional actions by government to help facilitate and coordinate response and recovery efforts (NASEO, 2018).

Consumption and Distribution

Gasoline is the most used transportation fuel in California, with 97 percent of all gasoline being consumed by light-duty cars, pickup trucks, and sport utility vehicles (CEC, 2018a). Diesel fuel is the second largest transportation fuel used in California, representing 17 percent of total fuel sales behind gasoline. Nearly all heavy duty-trucks, delivery vehicles, buses, trains, ships, boats and barges, farm equipment, construction equipment, heavy duty military vehicles and equipment have diesel engines. Diesel is the fuel of choice because it has 12 percent more energy per gallon than gasoline and has fuel properties that prolong engine life making it ideal for heavy duty vehicle applications (CEC, 2018b). According to the State Board of Equalization (BOE), approximately 15.5 billion gallons of gasoline, including aviation gasoline, and 3.1 billion gallons of diesel, including off-road diesel, were sold in California in 2017 (BOE 2018a, 2018b). In San Diego County, it is estimated that 1.37 billion gallons of gasoline and 102 million gallons of diesel were sold in 2016 (CEC, 2018c).

The CEC estimated that there were between 400 and 799 gasoline stations in San Diego County in 2016 (CEC, 2018c). Commercial fleet fueling services are available in the City of Vista, approximately 1.40 miles north of Segment 1, and the City of Escondido, approximately 2.25 miles east of Segment 3 (CFN, 2018). Helicopter staging and fueling services are available at Palomar Airport, located approximately 2.72 miles east of Segments 1 and 2 (San Diego County, 2018).

3.6.2 Regulatory Setting

Federal

National Energy Conservation Policy Act

The National Energy Conservation Policy Act (NECPA, 42 USC §8201 et seq.) serves as the underlying authority for federal energy management goals and requirements and is the foundation of most federal energy requirements. NECPA established energy-efficiency standards for consumer projects and includes a residential program for low-income weatherization assistance, grants and loan guarantees for energy conservation in schools and hospitals, and energy-efficiency standards for new construction. Furthermore, the NEPCA established fuel economy standards for on-road motor vehicles in the United States. The National Highway Traffic and Safety Administration (NHTSA), which is part of the U.S. Department of Transportation (USDOT), is responsible for establishing additional vehicle standards and revising existing standards under the NEPCA. The USDOT is authorized to assess penalties for noncompliance. In the course of more than 30 years, this regulatory program has resulted in improved fuel economy throughout the United States' vehicle fleet (NHTSA, 2014, 2018).

National Energy Policy Act of 2005

The National Energy Policy Act of 2005 (42 USC §13201 et seq.) sets equipment energy efficiency standards and seeks to reduce reliance on nonrenewable energy resources and provide incentives to reduce current demand on these resources. For example, the act establishes programs in order to improve the reliability and efficiency of distributed energy resources and systems by integrating advanced energy technologies with grid connectivity.

Energy and Independence Security Act of 2007 and Corporate Average Fuel Economy Standards

The Energy and Independence Security Act of 2007 (42 USC §17001) sets federal energy management requirements in several areas, including energy reduction goals for federal buildings, facility management and benchmarking, performance and standards for new buildings and major renovations, high-performance buildings, energy savings performance contracts, metering, energy-efficient product procurement, and reduction in petroleum use, including by setting automobile efficiency standards, and increase in alternative fuel use. This act also amends portions of the National Energy Policy Conservation Act, as described above.

State

Warren-Alquist Act

The 1975 Warren-Alquist Act (Pub. Res. Code §25000 et seq.) established the California Energy Resources Conservation and Development Commission, now known as the CEC. The Act established a state policy to reduce wasteful, uneconomical and unnecessary uses of energy by employing a range of measures. The Act also was the driving force behind the creation of CEQA Guidelines Appendix F, Energy Conservation.

State of California Integrated Energy Policy

Public Resources Code Section 25301(a) requires the CEC to develop an integrated energy plan at least every two years for electricity, natural gas, and transportation fuels. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. An overarching goal of the resulting Integrated Energy Policy Report is to achieve the statewide greenhouse gas reduction targets, while improving overall energy efficiency. For example, the CEC's 2018 Integrated Energy Policy Report Update includes increasing grid flexibility as a key component and maintaining the reliability of the electricity system while integrating larger amounts of variable wind and solar generation (CEC, 2018d).

Renewables Portfolio Standard (RPS)

The state's Renewables Portfolio Standard (RPS) was established in 2002 via SB 1078, which required 20 percent of the state's energy portfolio to be supplied by renewable sources such as solar, wind, hydroelectricity, geothermal, and bioenergy renewable energy by 2017. RPS goals have been accelerated over time to require the state's energy portfolio to be supplied by renewable sources in increasingly higher percentages. Since 2011, the RPS target has required all electricity retailers in the state, including investor-owned utilities such as Pacific Gas and Electric (PG&E), Southern California Edison (SCE), and San Diego Gas and Electric (SDG&E) to procure 33 percent of their energy sales from renewable sources by the end of 2020 (CPUC, 2018b). SB 350, passed in 2015, directs California utilities to further increase the amount of renewable energy to be delivered to customers to 50 percent by 2050. Collectively, PG&E, SCE, and SDG&E met the 33 percent goal in 2016 and are forecasted to reach 50 percent in 2020 (CPUC, 2018c). SB 100, passed in 2018, revised the goal of the program to achieve a 50 percent

renewable resources target by 2026, and a 60 percent target by 2030. Additionally, SB 100 created a policy of the state that eligible renewable energy resources and zero-carbon resources supply 100 percent of retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by 2045.

California Advanced Clean Cars Program/Zero Emission Vehicle Program

In January 2012, the California Air Resources Board (CARB) approved a new emissions-control program for vehicle model years 2017 through 2025. The program combines the control of smog, soot, and greenhouse gas with requirements for greater numbers of zero-emission vehicles into a single package of standards called Advanced Clean Cars. The components of the Advanced Clean Cars Program include the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and greenhouse gas emissions from light- and medium-duty vehicles, and the Zero-Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles (PHEV) in the 2018 through 2025 model years. In March 2017, CARB voted unanimously to continue with the vehicle greenhouse gas emission standards and the ZEV program for cars and light trucks sold in California past 2025 (CARB, 2017).

CARB Heavy Duty Regulations

CARB's On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation also requires diesel trucks that operate in California to be upgraded to reduce emissions. Newer heavier trucks must meet PM filter requirements beginning in 2012. Lighter and older heavier trucks must be replaced starting in 2015. By 2023 nearly all trucks would have 2010 model year engines or equivalent (CARB, 2018).

In 2004, CARB adopted a fourth tier of increasingly stringent advanced after treatment for new off-road compression-ignition engines, including those found in construction equipment. These "Tier 4" standards were phased-in across product lines from 2008 through 2015 and reduced exhaust emission levels by up to 95 percent compared to previous control strategies. In 2007, CARB first approved the Off-Road Regulation that requires off-road fleets to reduce their emissions by retiring, replacing, or repowering older engines (CARB, 2016).

Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order (GO) 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." The discussion below presents local policies for informational purposes only.

San Diego County General Plan

The Conservation and Open Space Element of the San Diego County General Plan contains the following goals related to energy conservation:

Goal COS-14: Sustainable Land Development. Land use development techniques and patterns that reduce emissions of criteria pollutants and GHGs through minimized transportation and energy demands, while protecting public health and contributing to a more sustainable environment.

Goal COS-18: Sustainable Energy. Energy systems that reduce consumption of non-renewable resources and reduce GHG and other air pollutant emissions while minimizing impacts to natural resources and communities.

City of Carlsbad General Plan

The Sustainability Element of the Carlsbad General Plan contains the following goal and policies related to energy efficiency:

Goal 9-G.3: Promote energy efficiency and conservation in the community.

***Policy 9-P.13*:** Use the city's Climate Action Plan as the platform for delineating and implementing measures to improve energy conservation, and increase renewable energy use (such as solar) in existing and new development.

***Policy 9-P.14*:** Support a regional approach to study the feasibility of establishing Community Choice Aggregation (CCA) or another program that increases the renewable energy supply and maintains the reliability and sustainability of the electrical grid.

City of Escondido Climate Action Plan and General Plan

The Escondido Climate Action Plan (E-CAP) establishes goals and policies that include energy use reduction measures as well as other sustainability strategies. The strategy outlined below would include fuel savings.

R2-C1: Construction Emissions Reductions

The following measures will be incorporated into the Screening Tables for New Development as options for new projects to reduce their emissions:

- Turn off all diesel-powered vehicles and gasoline-powered equipment when not in use for more than five minutes.
- Support and encourage ridesharing and transit incentives for the construction crew.

Additionally, the Resource Conservation element of the Escondido General Plan includes goals and policies related to energy. Applicable Escondido General Plan policies are outlined below.

Air Quality and Climate Projection Policy 7.2: Reduce regional greenhouse gas emissions through the following measure(s):

i) Encouraging the use of non-polluting alternative energy systems.

City of San Marcos General Plan

The Conservation and Open Space Element of the City of San Marcos' General Plan contains the following policies related to energy conservation to support the city's greenhouse gas reduction goals:

***Policy COS-4.5*:** Encourage energy conservation and the use of alternative energy sources within the community.

***Policy COS-4.6*:** Promote efficient use of energy and conservation of available resources in the design, construction, maintenance and operation of public and private facilities, infrastructure and equipment.

City of Vista General Plan

The Resource Conservation and Sustainability Element of the City of Vista's General Plan contain the following goal and policy that pertain to energy use.

RCS Goal 14: Promote efficient and sustainable use of energy resources through conservation, demand reduction activities, and alternate energy sources.

***RCS Policy 14.13*:** Support SDG&E in the location of new or expanded service facilities where appropriate, and support maintenance and operational activities through coordinated efforts with SDG&E staff and contractors.

3.6.3 Applicant Proposed Measures

No Applicant Proposed Measures (APMs) have been proposed by SDG&E to reduce potential energy-related impacts of the Project.

3.6.4 Environmental Impacts

Discussion

a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during construction or operation: *LESS THAN SIGNIFICANT IMPACT*.

The Project would not involve the use of electricity or natural gas; therefore, the analysis below relates to transportation-related fuel consumption.

Construction

The analysis in this section utilizes the greenhouse gas emissions estimates identified in Appendix C.1, *Air Quality and Greenhouse Gas Emissions Calculations*, to estimate gasoline and diesel fuel consumption volumes for construction-related equipment and vehicles. The fuel use calculations are provided in Appendix C.2, *San Marcos-Escondido TL 6975 69kV Project Fuel Use*, and are summarized below.

Construction would result in fuel consumption from the use of construction tools and equipment, haul truck trips, helicopter use, and vehicle trips generated from workers traveling to and from the Project sites. Construction is expected to consume a total of approximately 124,600 gallons of diesel fuel from construction equipment and haul truck trips, approximately 5,520 gallons of gasoline from construction worker vehicle trips, and approximately 730 gallons of jet fuel from helicopter activities. For reference, approximately 1.37 billion gallons of gasoline and 102 million

gallons of diesel were sold in San Diego County in 2016 (CEC, 2018c). Construction activities and corresponding fuel energy consumption would be temporary and localized, as the use of diesel fuel for heavy-duty equipment would not be a typical condition of the Project during operation.

In addition, a comparison of greenhouse gas emissions for similar electric transmission line projects in the area indicates that there are no unusual Project characteristics that would cause the use of construction equipment that would be less energy efficient compared with the other similar construction projects. Project construction-related CO_2 emissions were compared to the SDG&E TL 649 Wood-to-Steel Replacement Project (CPUC, 2018a), the SDG&E TL 695 and TL 6971 Reconductor Project (CPUC, 2017), and the SDG&E Tie-Line 637 Wood-to-Steel Project (CPUC, 2014) in San Diego County. Based on this comparison, as well as the Project's relatively low energy demand, construction-related fuel consumption by the Project would not result in inefficient, wasteful, or unnecessary energy use compared with the energy use for other construction projects in the region. This impact would be less than significant.

Operation and Maintenance

In general, routine operation and maintenance of the Project would be substantially the same as current conditions, but could result in a small number of additional worker vehicle trips during routine maintenance and inspection activities, due to additional structures and hardware implemented along Segment 2. These additional worker trips would result in a negligible increase in fuel consumption, as discussed in Section 3.3, *Air Quality*. Therefore, operation and maintenance would not result in the wasteful, inefficient, and/or unnecessary consumption of energy. This impact would be less than significant.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency: *NO IMPACT.*

The Project would result in a second 69 kV power line from the San Marcos Substation to the Escondido Substation to address North American Electric Reliability Corporation (NERC) violations that were identified during the California Independent System Operators (CAISO) 2015/2016 transmission planning process. The conversion of the single circuit to a double circuit would meet mandatory NERC reliability criteria in the Escondido Area Load Pocket and alleviate 69 kV congestion at the existing Escondido/San Marcos substations. As discussed above, the CEC's 2018 Integrated Energy Policy Report Update includes a goal to maintain the reliability of the electricity system while integrating larger amounts of variable wind and solar generation. Since the Project would address reliability issues, it would not conflict with the renewable energy goals of California's Integrated Energy Policy.

In terms of energy usage from heavy-duty vehicles used during construction, the USEPA and NHTSA established a comprehensive Heavy-Duty National Program that would reduce greenhouse gas emissions and increase fuel efficiency for on-road heavy-duty vehicles beginning with model year 2014 (USEPA, 2011). CARB's On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation also requires diesel trucks that operate in California to be upgraded to reduce emissions, such that by 2023 nearly all trucks would have 2010 model year engines or equivalent

(CARB, 2018). Vehicles used during Project construction would already incorporate these standards; therefore, the Project would not impede the efficient use of fuel for heavy-duty vehicles. Off-road equipment during construction would be subject to off-road equipment regulations such as Tier 4 standards or the Off-Road Regulation implemented by CARB, and would therefore not impede the implementation of CARB's energy efficiency programs. Additionally, the use of diesel fuel for heavy-duty vehicles and off-road equipment would not be a typical condition of the Project during operation; therefore, the Project would not conflict with the implementation of fuel efficiency plans.

In terms of light-duty vehicle energy usage, as described above, the NHTSA required manufacturers of light-duty vehicles to meet an estimated combined passenger car and light truck average fuel economy level of 34.1 miles per gallon (mpg) by model year 2016. In the course of more than 30 years, the NECPA regulatory program has resulted in improved fuel economy throughout the United States' vehicle fleet, and has also protected against inefficient, wasteful, and unnecessary use of energy. Regardless of the uncertainty for fleet-wide emissions past 2021, the projected fleet-wide mpg for light-duty vehicles is expected to reach 41.7 mpg by 2020 (USEPA, 2012, 2018). Additionally, CARB's Advanced Clean Cars Program will continue to improve fuel efficiency and reduce gasoline use through an increase of ZEVs and PHEVs. Vehicles used by Project construction and maintenance workers would already incorporate these standards and programs; therefore, the Project would not impede the efficient use of fuel for light-duty vehicles.

Since the Project has relatively low energy demand, would address reliability issues, and would comply with fuel and energy efficiency regulations, it would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency, and therefore no impact would occur.

3.6.5 References

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3.7 Geology, Soils, Seismicity, and Paleontological Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
7. GEOLOGY, SOILS, SEISMICITY AND PALEONTOLOGICAL RESOURCES— Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☒	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☒	☐	☐
iv) Landslides?	☐	☒	☐	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☒	☐	☐
d) Be located on expansive or corrosive soil, creating substantial direct or indirect risks to life or property?[1]	☐	☒	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

This impact analysis considers the potential geology, soils, seismicity, and paleontological impacts associated with the construction, operation, and maintenance of the Project. The resource-specific study area for impacts related to geology, soils, and seismicity is defined as the Project footprint and vicinity, including all areas of temporary and/or permanent ground disturbance. For paleontological resources, the study area includes all areas within 1 mile of the immediate Project alignment, and in particular, the Santiago Formation described in more detail below.

[1] The CBC, based on the International Building Code (IBC) and the now defunct Uniform Building Code (UBC), no longer includes a Table 18-1-B. Instead, Section 1803.5.3 of the CBC describes the criteria for analyzing expansive soils.

3.7.1 Environmental Setting

Local Geology

The study area lies within the Peninsular Ranges Geomorphic Province in northern San Diego County. The Peninsular Ranges Physiographic Province extends from the West Coast of the United States to the Colorado Desert on the east and extends just north of the Los Angeles area to the Southern California border. All of the geologic units within the study area are identified and depicted in **Table 3.7-1** and **Figure 3.7-1**, *Geologic Units in the Study Area*, as described in the geologic map of the area (Kennedy and Tan, 2007) and described in more detail in the paleontological resource assessment prepared for the Project (PaleoServices, 2017).

Unit Descriptions

The geologic unit designations given in this report come from the designations given on the Kennedy and Tan (2007) geologic map of the Oceanside quadrangle.

Young Alluvial Floodplain Deposits (Qya)

Approximately 0.5 mile of Segments 1 and 3 are underlain by young alluvial floodplain deposits. These deposits are late Pleistocene to Holocene (11,700 years ago to recent) in age and consist of poorly consolidated and poorly sorted permeable flood-plain deposits of sand, silt, and clay (Kennedy and Tan, 2007).

The Society of Vertebrate Paleontology (SVP) defines paleontological resources as being older than the middle Holocene, or about 5,000 years. Therefore, younger Holocene alluvium is considered to have low paleontological potential at the surface, with increasing potential in deeper (and older) layers in the subsurface (PaleoServices, 2017).

Santiago Formation (Tsa)

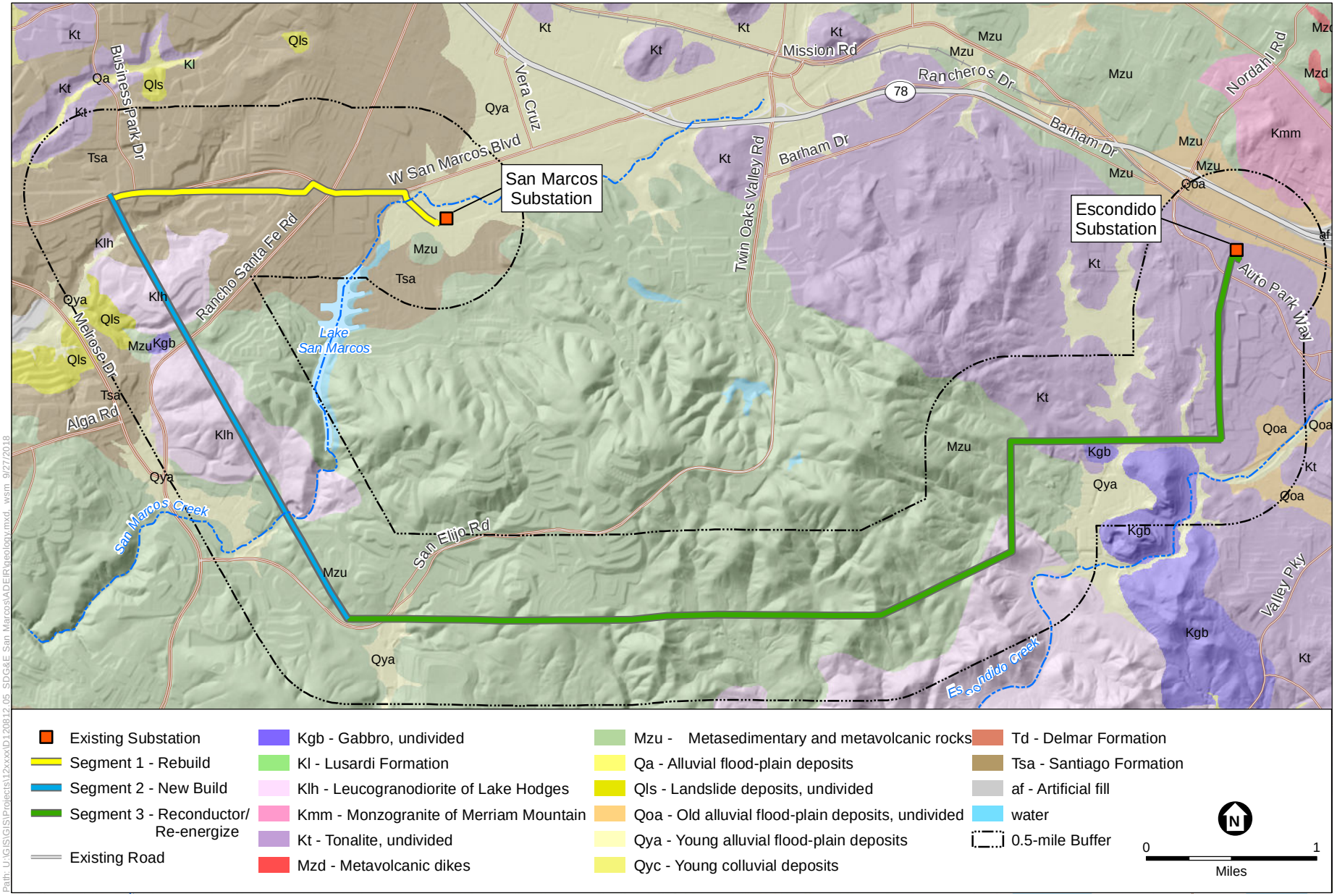
Approximately 2.2 miles of Segments 1 and 2 are underlain by middle Eocene-age (approximately 40 to 49 million years ago) rocks of the Santiago Formation. The Santiago Formation is divided into three distinct members, of which the central and upper members may be impacted by the Project. The central member consists of gray and brownish-gray soft, medium-grained, moderately well sorted arkosic sandstone. The upper member consists of gray, coarse-grained arkosic sandstone and grit. Vertically and laterally throughout the formation there exists greenish-brown, massive claystone interbeds, tongues and lenses of lagoonal claystone and siltstone (Kennedy and Tan, 2007).

The central and upper members consist of arkosic sandstone representing deposition in continental, estuarine, and marine environments, and both preserve significant fossil resources including plants, invertebrates, and vertebrates such as reptiles (e.g., turtles, snakes, lizards, crocodiles), birds, and mammals (e.g., opossums, primates, rodents, rhinoceros, and many others) (PaleoServices, 2017). Therefore, the Santiago Formation has high potential for paleontological resources.

TABLE 3.7-1
GEOLOGIC UNITS IN THE STUDY AREA

Symbol	Unit Name	Period	Description
Segment 1			
Qya	Young alluvial flood-plain	Quaternary (Holocene and Late Pleistocene Epoch)	Poorly consolidated, poorly sorted, permeable flood-plain deposits and sandy, silty, or clay-bearing alluvium
Tsa	Santiago Formation	Quaternary (Middle Eocene)	Medium to coarse-grained Arkosic sandstone that is poorly to moderately sorted. Throughout the formation are massive claystone interbeds and lenses that are often fossiliferous.
Segment 2			
Tsa	Santiago Formation	Quaternary (Middle Eocene)	Medium to coarse-grained Arkosic sandstone that is poorly to moderately sorted. Throughout the formation are massive claystone interbeds and lenses that are often fossiliferous.
Kt	Tonalite	mid-Cretaceous	Massive, coarse-grained, light gray hornblende-biotite tonalite
Kgb	Gabbro	mid-Cretaceous	Massive, coarse-grained, dark gray, and black biotite-hornblende-hypersthene gabbro
Klh	Leucogranodiorite of Lake Hodges	mid-Cretaceous	Massive, medium- to coarse-grained biotite-hornblende, leucogranodiorite
Mzu	Metasedimentary and metavolcanic rocks	Jurassic	Wide variety of unmetamorphosed and low to high metamorphic grade volcanic and sedimentary rocks. They include prebatholithic (metamorphosed) and synbatholithic (unmetamorphosed) rocks, including metavolcanic rocks (Santiago Peak Volcanics) of Larsen.
Segment 3			
Qya	Young alluvial flood-plain	Quaternary (Holocene and Late Pleistocene Epoch)	Poorly consolidated, poorly sorted, permeable flood-plain deposits and sandy, silty, or clay-bearing alluvium
Kt	Tonalite	mid-Cretaceous	Massive, coarse-grained, light gray hornblende-biotite tonalite
Kgb	Gabbro	mid-Cretaceous	Massive, coarse-grained, dark gray, and black biotite-hornblende-hypersthene gabbro
Klh	Leucogranodiorite of Lake Hodges	mid-Cretaceous	Massive, medium- to coarse-grained biotite-hornblende, leucogranodiorite
Mzu	Metasedimentary and metavolcanic rocks	Jurassic	Wide variety of unmetamorphosed and low to high metamorphic grade volcanic and sedimentary rocks. They include prebatholithic (metamorphosed) and synbatholithic (unmetamorphosed) rocks, including metavolcanic rocks (Santiago Peak Volcanics) of Larsen.

SOURCE: Kennedy and Tan, 2007



SOURCE: SDGE, 2018; Kennedy and Tan, 2007

TL 6975 San Marcos to Escondido Project

Figure 3.7-1

Geologic Units in the Study Area

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3.7-4

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Cretaceous Intrusive Igneous Rocks (Kgb, Klh, Kt)

Approximately 2.4 miles of Segments 2 and 3 are underlain by several Cretaceous intrusive igneous rock units described in Table 3.7-1.

Plutonic igneous rocks form from the crystallization of magma within the Earth's crust and, therefore, will not preserve fossil resources (PaleoServices, 2017). These units have no potential for paleontological resources.

Mesozoic Metasedimentary and Metavolcanic Rocks, Undivided (Mzu)

Approximately 4.7 miles of Segment 3 is underlain by Mesozoic metasedimentary and metavolcanic rocks. This unit consist of sedimentary rocks interbedded with volcanic flows, all of which has been subjected to low-grade metamorphism.

While low-grade metasedimentary rocks can preserve fossil resources in some circumstances, none are documented from the vicinity of the study area, which is most likely underlain by metavolcanic rocks (PaleoServices, 2017). Therefore, this unit is assigned low paleontological potential in the study area.

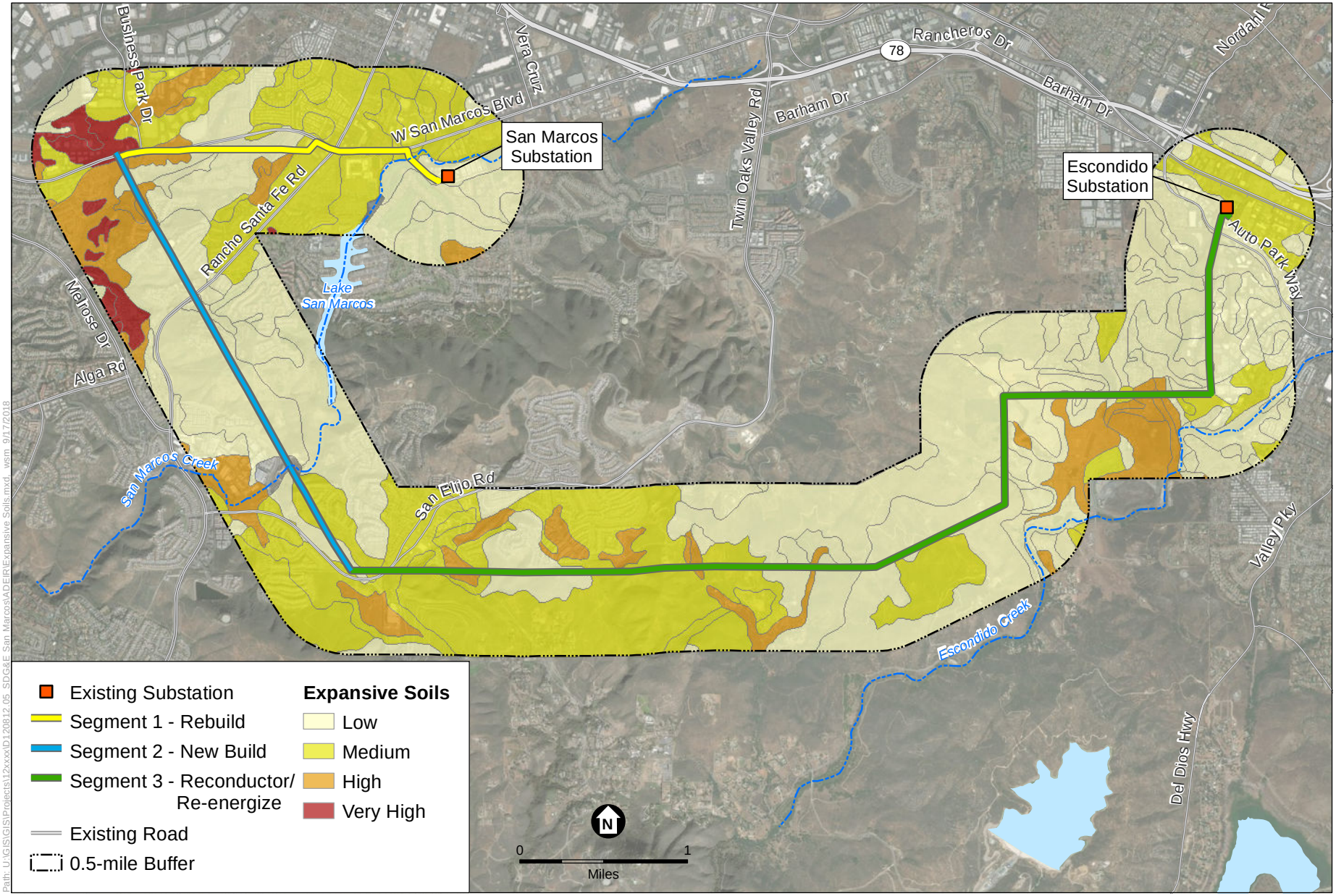
Soils

Soil Expansion

Expansive soils are soils that possess a "shrink-swell" characteristic, also referred to as linear extensibility. Shrink-swell is the cyclic change in volume (expansion and contraction) that occurs in fine-grained clay sediments from the process of wetting and drying; the volume change is reported as a percent change for the whole soil. Changes in soil moisture can result from rainfall, landscape irrigation, utility leakage, roof drainage, and/or perched groundwater.[2] Expansive soils are typically very fine-grained and have a high to very high percentage of clay. Structural damage may occur incrementally over a long period of time, usually as a result of inadequate soil and foundation engineering or the placement of structures directly on expansive soils. Linear extensibility is used to determine the shrink-swell potential of soils. If the linear extensibility is more than 3 percent, shrinking and swelling may cause damage to building, roads, and other structures. (NRCS, 2018).

While a majority of the area surrounding the Project has a low shrink-swell potential, there are portions of each segment that have a moderate to very high shrink-swell potential, as shown on **Figure 3.7-2**, *Expansive Soils*. A geotechnical investigation was performed by GEOCON Inc., and laboratory tests indicate that soils may be moderately to highly expansive. This is based on the California Building Code (CBC) criterion that soils with an expansion index greater than 20 are considered expansive (GEOCON Inc., 2017; NRCS, 2017b). The linear extensibility data from the Natural Resources Conservation Service (NRCS) is based on the general characteristics of the types of soils in the Area of Interest. The laboratory results from GEOCON Inc. are based on actual soil samples taken from locations within the study area, and are much more accurate.

[2] Perched groundwater is a local saturated zone above the water table that typically exists above an impervious layer (such as clay) of limited extent.



SOURCE: SDGE, 2018; NRCS, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.7-2
Expansive Soils

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Soil Corrosivity

The corrosivity of soils pertains to the potential for certain soils to cause an electrochemical or chemical reaction that can corrode or weaken uncoated steel or concrete. The rate at which these materials corrode is dependent on a number of variables, including but not limited to: soil moisture, texture, mineral content, and acidity. The rate of corrosion of steel is based on soil moisture, particle-size distribution, acidity, and electrical conductivity. Corrosion of concrete is based on the sulfate and sodium content, texture, moisture and acidity of the soil. The risk of corrosion is expressed as low, moderate, or high.

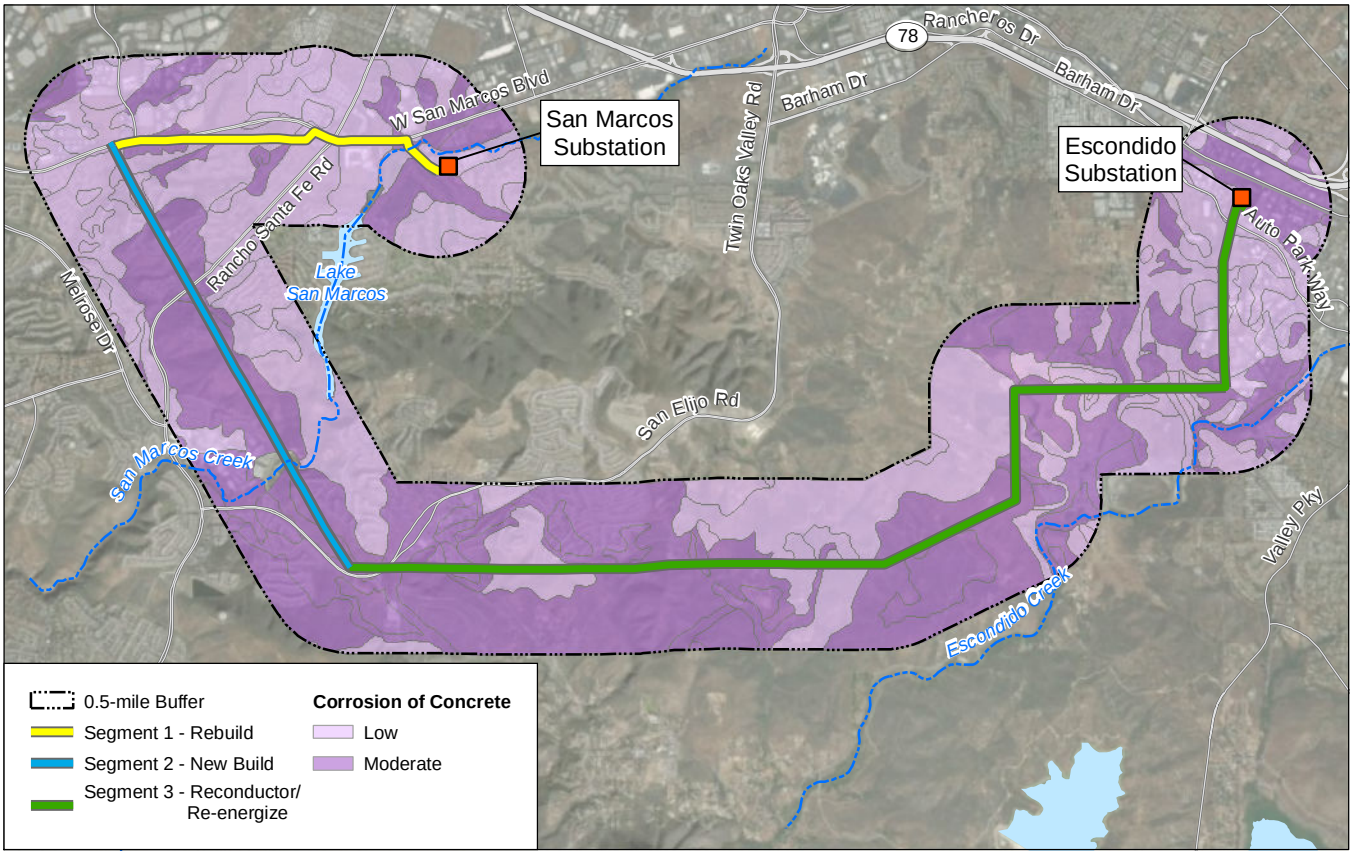
The NRCS Web Soil Survey, provides data assessing the corrosivity of soils, specifically the corrosion of steel and concrete (NRCS, 2017b, 2017c). Analysis of the study area, with an emphasis on locations where the components of the Project that would include underground installation of power lines or where structures would come into contact with soils beneath the surface, shows some variability in soil corrosivity, shown in **Figure 3.7-3**, *Corrosive Soils*. While the evaluation or identification of corrosive materials was not part of the scope of services provided by GEOCON Inc., one sample (taken from Segment 1, on Discovery Street) was tested for corrosion potential; the sample is not considered corrosive (GEOCON Inc., 2017). The Web Soil Survey (2017) identifies soils along Segments 2 and 3 that have a high potential for corrosion of uncoated steel and a moderate potential for corrosion of concrete. The two types of poles that would be installed as part of the Project would either be galvanized steel or both galvanized and anchored to a concrete-pier foundation. While the steel poles would be protected, the concrete foundation would be exposed to moderately corrosive soils along Segments 2 and 3.

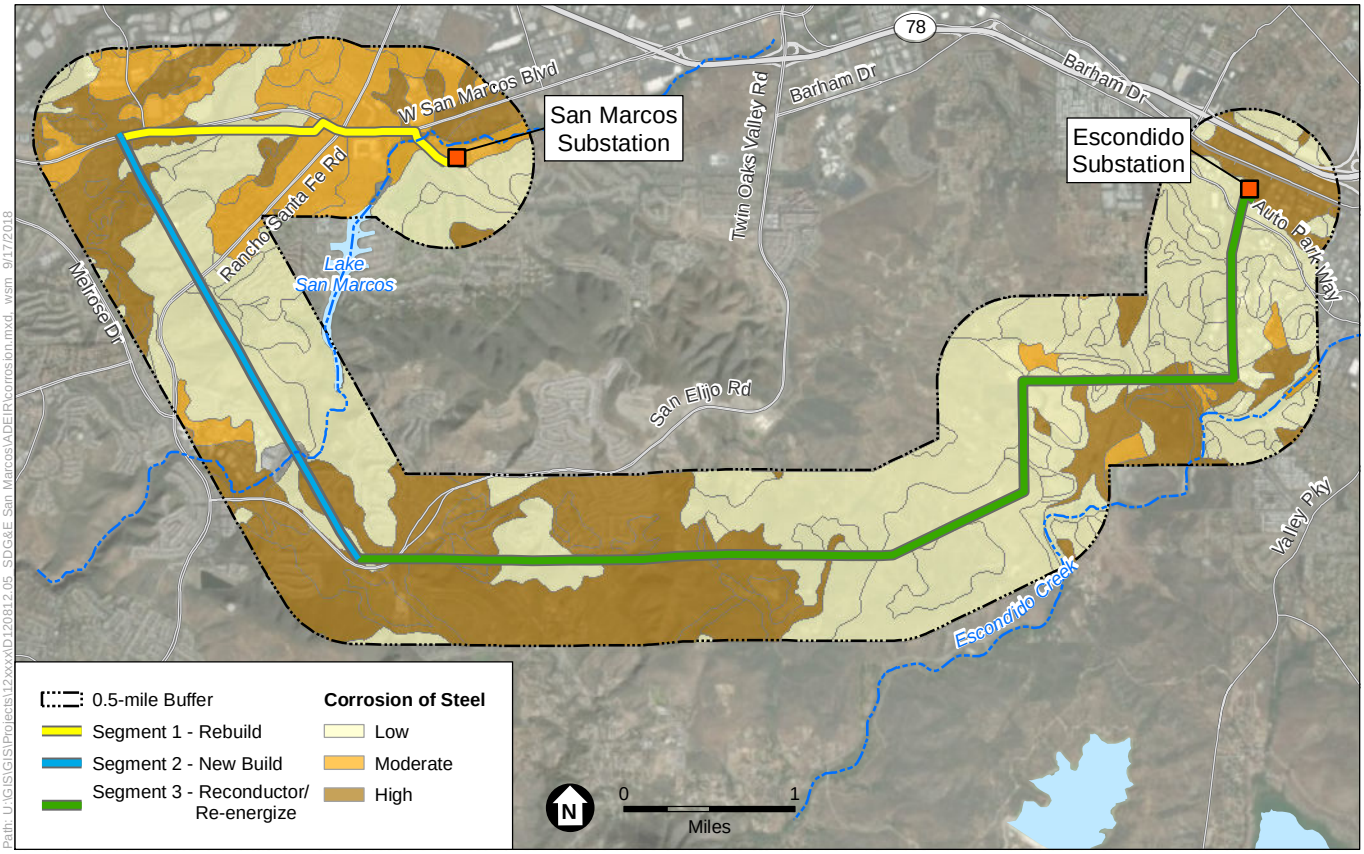
As a part of investigating the level of induced AC interference effects of the existing power lines on the existing natural gas pipelines within the same alignment, the potential to induce corrosion in the pipelines was investigated (ARK, 2017). The investigation details are discussed in Section 3.9, *Hazards and Hazardous Materials*. The investigation results concluded that the presence of the power lines does induce a current to the pipelines and exceeds acceptable "design limits." To reduce the induced AC interference effects, the investigation recommended the installation of a series vertical deep wells along pipeline sections, as well as three AC coupon test stations[3] to monitor the pipeline currents, along West San Marcos Boulevard.

Subsidence

Subsidence is the gradual lowering of the land surface due to compaction of underlying materials. Subsidence can occur as a result of the extraction of groundwater and oil, which can cause subsurface clay layers to compress and lower the overlying land surface. The Project does not include the extraction of water or oil.

[3] A "coupon test station" facilitates the measurement of both alternating current (AC) and direct current (DC) in belowground metal pipes. This data is used to monitor the effects of the electrical current and the surrounding fill on the integrity of the pipe.





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SOURCE: NRCS, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.7-3

Corrosive Soils

Earthquake Hazards

Faults and Seismicity

The study area is located in a historically seismically active portion of California. While it has been over 80 years since the last significant fault rupture in the area, the faults in the area have the potential to rupture in the near future (Field et al., 2015). The 2014 Working Group on California Earthquake Probabilities[4] concluded that there is a high probability that a M_W 6.7 earthquake or higher will strike Southern California in the next 30 years (Field et al., 2015). There are no known faults in the immediate study area (CGS, 2010a). However, there are a number of fault systems in the region (CGS, 2010a). The most significant of these fault systems are the Newport-Inglewood/Rose Canyon Fault Zone, the Elsinore Fault Zone, and the San Andreas Fault Zone (**Table 3.7-2** and **Figure 3.7-4**).

TABLE 3.7-2
FAULTS IN PROXIMITY TO THE STUDY AREA

Fault Name	Approximate Distance (miles) from Study Area and Direction (relative to Study Area)	Years Since Last Known Rupture	Approximate Maximum Earthquake Magnitude (M_W*)
Newport-Inglewood/Rose Canyon fault zone (Del Mar Section)	9.5 miles southwest	81	7.5
Elsinore fault zone (Julian Section)	15.5 miles northeast	1,226	7.9
Elsinore fault zone (Temecula Section)	16.0 miles northeast	281	7.9
San Andreas fault zone (Coachella Section)	>60 miles northeast	334	8.0

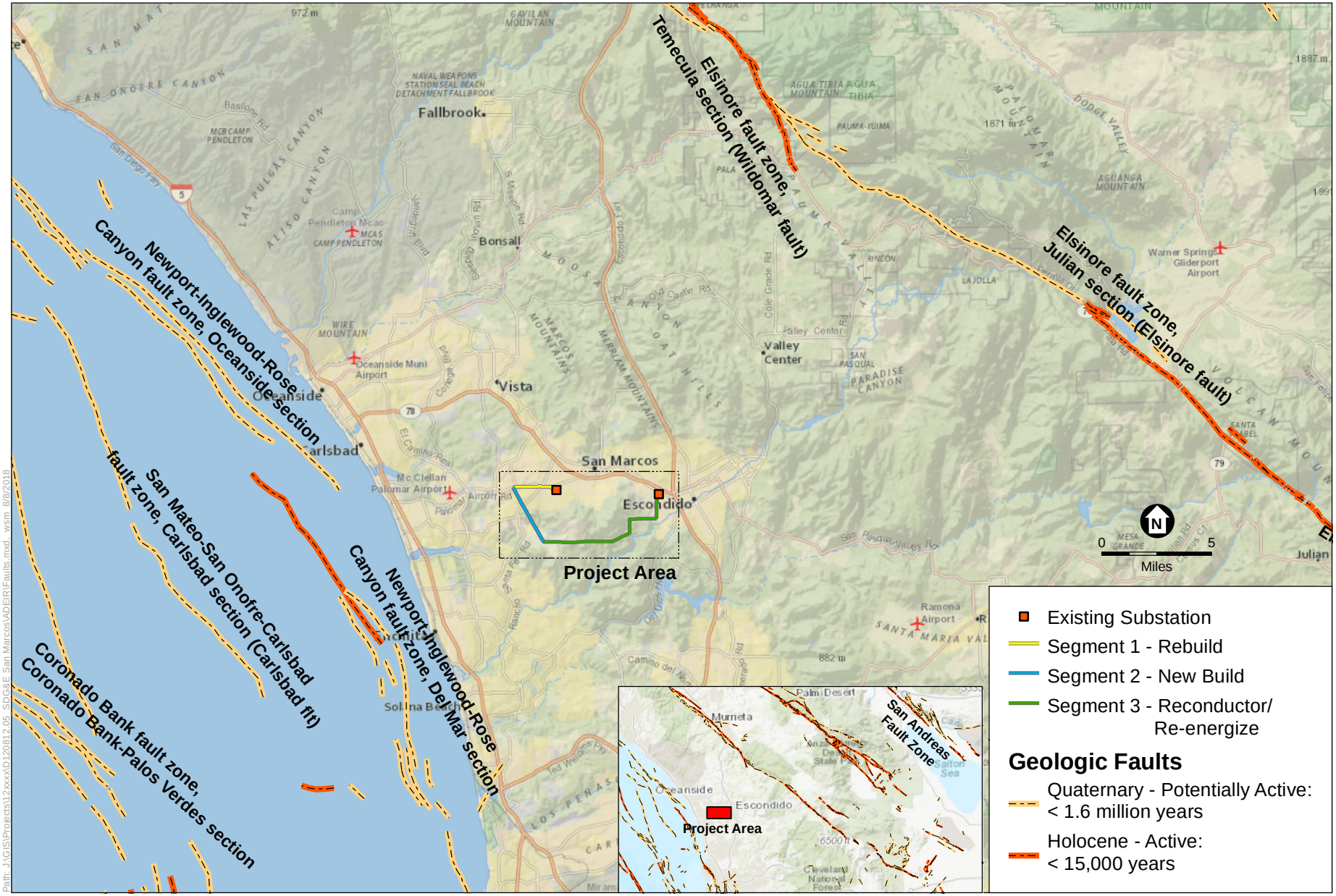
* The moment magnitude (M_W) of an earthquake is the measure of the total energy expended during an earthquake; It is used here in place of the local magnitude (M_L) (i.e., the Richter magnitude scale), as local magnitude is an inaccurate measure of large earthquakes (USGS, 2018b).

SOURCE: Field et al., 2015; GEOCON Inc., 2017.

Fault Rupture

Faults are planar features within the earth's crust that have formed to release strain caused by the dynamic movements of the earth's major tectonic plates. An earthquake on a fault is produced when these strains overcome the inherent strength of the earth's crust and the rock ruptures. The rupture causes seismic waves that propagate through the earth's crust, producing the ground shaking effect known as an earthquake. The rupture also causes variable amounts of slip along the fault, which may or may not be visible at the earth's surface (USGS, 2018a).

4 Also referred to as WGCEP 2014, this is a working group comprised of seismologists from the U.S. Geological Survey (USGS), California Geological Survey (CGS), Southern California Earthquake Center (SCEC), and California Earthquake Authority (CEA).



SOURCE: SDGE, 2018; CGS, 2010

TL 6975 San Marcos to Escondido Project

Figure 3.7-4
Active Faults

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The magnitude and nature of fault rupture can vary for different faults or even along different strands of the same fault. Future faulting is generally expected along different segments of faults with recent activity.[5] Structures, transportation facilities, and utility systems crossing fault traces are at risk during a major earthquake due to ground rupture caused by differential lateral and vertical movement on opposite sides of the active fault trace (USGS, 2018c). While this region of California is seismically active, there are no active faults that cross the study area. The closest fault to the Project right-of-way is the Del Mar Section of the Newport-Inglewood/Rose Canyon fault zone. It is located approximately 9.5 miles to the southwest of the Project site, and has the potential to produce an earthquake with a maximum magnitude of 7.5 (GEOCON Inc., 2017; Field et al., 2015). The San Andreas and Elsinore fault zones have been delineated on an Earthquake Fault Zone Map and are considered Earthquake Fault Zones (A-P Zone) (CGS, 2018). However, due to the distances from the Project, any surface rupture of these faults would not impact the study area.

Ground Shaking

Ground shaking due to a seismic event can cause extensive damage to life and property, and may affect areas hundreds of miles away from the earthquake's epicenter. The extent of the damage varies by event and is determined by several factors, including (but not limited to): magnitude and depth of the earthquake, distance from epicenter, duration and intensity of the shaking, underlying soil and rock types, and integrity of structures (USGS, 2018c).

The entire Southern California region, including the study area, could be subject to strong ground shaking during earthquakes. According to the ShakeMap that corresponds with the earthquake planning scenario generated by the United States Geological Survey (USGS), if a M_W 7.6 event were to occur on the Julian Section of the Elsinore fault zone, the study area may experience strong to very strong ground shaking with moderate to heavy damage expected (USGS, 2016a). Additionally, a similar scenario for a M_W 7.5 earthquake on the Newport-Inglewood/Rose Canyon fault zone indicates strong to moderately severe ground shaking in the event of an earthquake in this fault zone (USGS, 2016b).

In 2015, the 2014 Working Group on California Earthquake Probabilities presented the third Uniform California Earthquake Rupture Forecast (UCERF3). According to this report, there is a 5 percent probability of a M_W 6.7 earthquake, or greater, and a 93 percent probability of a M_W 6.7 or greater earthquake in the Southern California Region over the next 30 years (Field et al., 2015).

Liquefaction and Lateral Spreading

Liquefaction is a phenomenon in which unconsolidated, water saturated sediments become unstable due the effects of strong seismic shaking. During an earthquake, these sediments can behave like a liquid, potentially causing severe damage to overlying structures. Lateral spreading is a variety of minor landslide that occurs when unconsolidated liquefiable material breaks and spreads due to the effects of gravity, usually down gentle slopes. Liquefaction-induced lateral

[5] California Geological Survey, 2008. Guidelines for Evaluating and Mitigation Seismic Hazards, CGS Special Publication 117A.

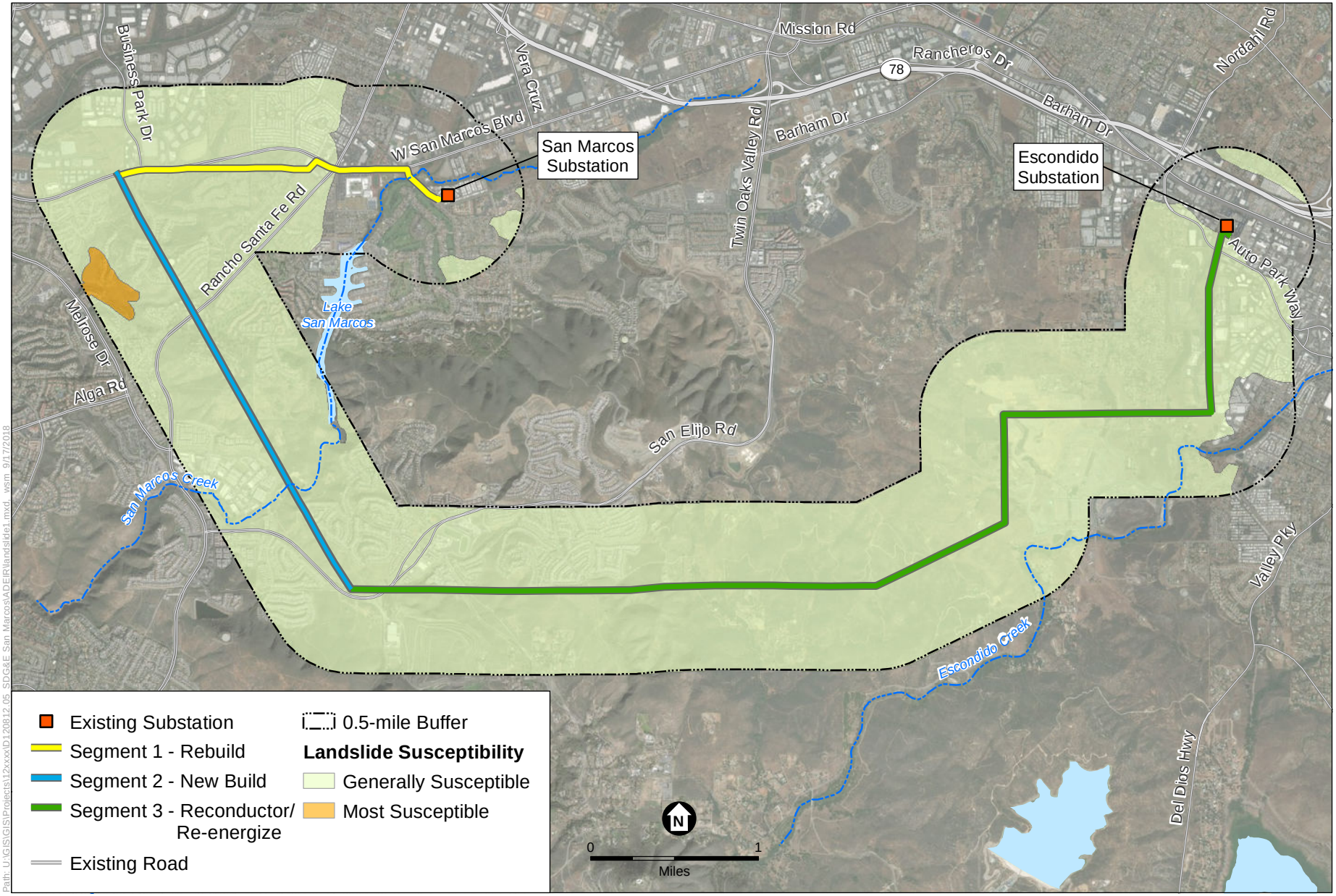
spreading is defined as the finite, lateral displacement of gently sloping ground as a result of pore-pressure buildup or liquefaction in a shallow underlying deposit during an earthquake. The occurrence of this phenomenon is dependent on many complex factors, including the intensity and duration of ground shaking, particle-size distribution, and density of the soil.

The potential damaging effects of liquefaction include differential settlement, loss of ground support for foundations, ground cracking, heaving and cracking of structure slabs due to sand boiling, and buckling of deep foundations due to ground settlement. Dynamic settlement (i.e., pronounced consolidation and settlement from seismic shaking) may also occur in loose, dry sands above the water table, resulting in settlement of and possible damage to overlying structures. In general, a relatively high potential for liquefaction exists in loose, sandy soils that are within 50 feet of the ground surface and are saturated (below the groundwater table). Lateral spreading can move blocks of soil, placing strain on buried pipelines that can lead to leaks or pipe failure.

The City of San Marcos General Plan Safety Element includes a map of Soil Slippage Susceptibility that delineates areas of landslide and liquefaction susceptibility. While most of Segments 1 and 2 are in an area of low susceptibility, there are small areas along Segment 2 that are mapped as moderate susceptibility to landslide and liquefaction (City of San Marcos, 2012). There are no Liquefaction Hazard Areas mapped on the Seismic and Geologic Hazards map included in the Community Protection Element of the Escondido General Plan (City of Escondido, 2012a). There is no information available on the susceptibility of the unincorporated areas of the Project in the San Diego County General Plan Safety Element (San Diego County, 2011). The geotechnical conditions report prepared by GEOCON Inc. acknowledges the potential for liquefaction in the loose saturated alluvial deposits below the groundwater level, and that liquefaction induced settlement of up to 4 inches may occur (GEOCON Inc., 2017). (See Figure 3.7-1 for a map of the geologic units in the area.) There is an approximately 0.3-mile portion of Segment 1 that overlies young alluvial flood-plain deposits (on Discovery Street), as well as a small portion of Segment 3; however, there are no proposed structures where the alluvial deposits are located along Segment 3.

Landslides

Landslides are one of the various types of downslope movements in which rock, soil, and other debris are displaced due to the effects of gravity. The potential for material to detach and move down slope depends on a variety of factors including the type of material, water content, steepness of terrain, and more. The California Geological Survey (CGS) provides Landslide Hazard Identification Maps which indicate potential areas of concern. According to the Relative Landslide Susceptibility and Landslide Distribution map by Tan and Giffen (1995a-c), Segments 2 and 3 are mapped as “Generally Susceptible” (**Figure 3.7-5**). This is designated on the map as a “3-1” or “3-2” subarea. Areas with this designation are at or near their stability limits due to the materials that comprise the area and the steepness of the slopes. Subarea 3-1 differs from 3-2 in that subarea 3-2 contains areas with steeper slopes. Both subareas are mapped in the study area (Tan and Giffen, 1995a-c).



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SOURCE: SDGE, 2018; NRCS, 2018; CDOC, 1995

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Figure 3.7-5
Landslide Potential

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Paleontological Resources

Paleontological resources are the fossilized remains of plants and animals, including vertebrates (animals with backbones; mammals, birds, fish, etc.), invertebrates (animals without backbones; starfish, clams, coral, etc.), and microscopic plants and animals (microfossils), and can include mineralized body parts, body impressions, or footprints and burrows. They are valuable, non-renewable, scientific resources used to document the existence of extinct life forms and to reconstruct the environments in which they lived. Fossils can be used to determine the relative ages of the depositional layers in which they occur and of the geologic events that created those deposits. The age, abundance, and distribution of fossils depend on the geologic formation in which they occur and the topography of the area in which they are exposed. The geologic environments within which plants or animals became fossilized usually were quite different from the present environments in which the geologic formations exist.

PaleoServices, operated by the San Diego Natural History Museum (SDNHM), conducted a paleontological resources assessment for the Project that consisted of a search of the records maintained at SDNHM and a review of the relevant scientific literature, geologic mapping, and unpublished paleontological reports (PaleoServices, 2017).

Paleontological Resources Potential

The paleontological resources assessment (PaleoServices, 2017) provides the paleontological potential ratings of the geologic units in the study area, as described above under *Local Geology, Unit Descriptions*. Descriptions of these paleontological potential ratings, as provided by PaleoServices, are as follows:

High Potential: Geologic units with high potential have produced, or are likely to produce, significant vertebrate, invertebrate, or paleobotanical remains. High potential geologic units may contain fossil materials that are rare, well-preserved, critical for stratigraphic or paleoenvironmental interpretation, and/or provide important information about the paleobiology, and evolutionary history (phylogeny) of animal and plant groups.

Moderate Potential: Moderate potential is assigned to geologic units known to contain paleontological localities with fossil material that is poorly preserved, common elsewhere, or stratigraphically unimportant. The moderate potential category is also applied to geologic units that are judged to have a strong, but unproven, potential for producing important fossil remains.

Low Potential: Low potential is assigned to geologic units that, based on their relatively young age and/or high-energy depositional history, are judged unlikely to produce important fossil remains. Typically, low potential units produce fossil remains in low abundance, or only produce common/widespread invertebrate fossils whose taphonomy, phylogeny, and ecology is already well understood.

No Potential: Geologic units with no potential are either entirely igneous in origin and therefore do not contain fossil remains, or are moderately to highly metamorphosed and thus any contained fossil remains have been destroyed. Artificial fill materials also have no potential, because the stratigraphic and geologic context of any contained organic remains (i.e., fossils) has been lost.

As described above, the Santiago Formation is considered to have a high potential for containing significant paleontological resources. Another unit, young alluvial floodplain deposits, has low paleontological potential at the surface that increases to high potential in the subsurface. The Santiago Formation underlies Segment 1 and a portion of Segment 2 (see Figure 3.7-1), and is known to contain scientifically important marine and estuarine invertebrate fossils, as well as terrestrial vertebrate fossils. Young Holocene alluvium overlies Santiago Formation where Segment 1 begins on Discovery Street, and so maintains a high potential for paleontological resources at depth.

Unique Paleontological Resources

The County of San Diego defines a unique paleontological resource as any fossil or assemblage of fossils, or paleontological resource site or formation, that meets any of the following criteria:

- Is the best example of its kind locally or regionally;
- Illustrates a paleontological or evolutionary principle (e.g. faunal succession; plant or animal relationships);
- Provides a critical piece of paleobiological data (illustrates a portion of geologic history or provides evolutionary, paleoclimatic, paleoecological, paleoenvironmental or biochronological data);
- Encompasses any part of a "type locality" of a fossil or formation;
- Contains a unique or particularly unusual assemblage of fossils;
- Occupies a unique position stratigraphically within a formation; or
- Occupies a unique position, proximally, distally or laterally within a formation's extent or distribution. (County of San Diego, 2009)

This analysis uses this definition of unique paleontological resources.

Paleontological Resources Records Search

The search of the paleontological records housed at the SDNHM revealed 42 documented fossil collection sites located with a 1-mile radius of the Project. All of the localities are from the central member of the Santiago Formation, which is Eocene in age. The localities produced trace fossils (e.g., sponge borings, worm burrows, and coprolites) and fossilized impressions or remains of plants (e.g., flowering plants and horsetails), shells of marine invertebrates (e.g., bryozoans, ostracods, snails, mussels, oysters, clams, tusk shells, barnacles, crabs, and sea urchins), and teeth and bones of marine vertebrates (e.g., sharks, rays, and bony fish) and terrestrial vertebrates (e.g., softshell turtles and crocodiles) (PaleoServices, 2017).

3.7.2 Regulatory Setting

Federal

Occupational Safety and Health Administration

The Occupational Safety and Health Act requires employers to comply with safety and health standards promulgated by the Occupational Safety and Health Administration (OSHA). OSHA Excavation standards, 29 Code of Federal Regulations (CFR) Part 1926, Subpart P, contain requirements for excavation and trenching operations.

Paleontological Resources Preservation Act

The Paleontological Resources Protection Act, as provided in Title VI, Subtitle D, Paleontological Resources Preservation of the Omnibus Public Land Management Act of 2009 (Public Law 111-011), requires the preservation, management, and protection of paleontological resources on lands administered by the Bureau of Land Management, the Bureau of Reclamation, the National Park Service, and the U.S. Fish and Wildlife Service and ensure that these federally owned resources are available for current and future generations to enjoy as part of America's national heritage. The Act address the management, collection, and curation of paleontological resources from federal lands using scientific principles and expertise, including collection in accordance with permits; curation in an approved repository; and maintenance of confidentiality of specific locality data. The Paleontological Resources Preservation Act authorizes civil and criminal penalties for illegal collecting, damaging, otherwise altering or defacing, or for selling paleontological resources, and the proposed rule further details the processes related to the civil penalties, including hearing requests and appeals of the violation or the amount of the civil penalties.

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. In accordance with this act, the State Geologist established regulatory zones, called "earthquake fault zones," around the surface traces of active faults and published maps showing these zones. Within these zones, buildings for human occupancy cannot be constructed across the surface trace of active faults. Each earthquake fault zone extends approximately 200 to 500 feet on either side of the mapped fault trace, because many active faults are complex and consist of more than one branch. There is the potential for ground surface rupture along any of the branches.

California Building Code

The California Building Code (CBC), which is codified in Title 24 of the California Code of Regulations (Cal. Code Regs.), Part 2, was promulgated to safeguard the public health, safety, and general welfare by establishing minimum standards related to structural strength, means of egress to facilities (entering and exiting), and general stability of buildings. The purpose of the CBC is to regulate and control the design, construction, quality of materials, use/occupancy, location, and maintenance of all buildings and structures within its jurisdiction. The California Building

Standards Commission administers Title 24, and, by law, is responsible for coordinating all building standards. Under state law, all building standards must be centralized in Title 24 or they are not enforceable. The provisions of the CBC apply to the construction, alteration, movement, replacement, repair, location, maintenance, and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures throughout California.

While the Project does not propose to erect any buildings or structures that would be occupied by people, the Project remains under the purview of the CBC because the towers, poles, foundations, retaining walls, etc., associated with this Project are considered structures. The California Health and Safety Code defines a "structure" as an edifice or building of any kind or any piece of work artificially built or composed of parts joined together in some definite manner (Health and Safety Code § 18908). Title 24 also states that the construction, installation, alteration, removal, repair, or replacement of any electrical system are regulated by CBC.

Relevant to the Project, Chapter 18 of the CBC covers the requirements of geotechnical investigations, including expansive soils (§1803); excavation, grading, and fills (§1804); load-bearing of soils (§1806); as well as foundations (§1808), shallow foundations (§1809), and deep foundations (§1810). Chapter 18 requires analysis of slope instability, liquefaction, and surface rupture attributable to faulting or lateral spreading, plus an evaluation of lateral pressures on basement and retaining walls, liquefaction and soil strength loss, and lateral movement or reduction in foundation soil-bearing capacity. It also addresses mitigation measures to be considered in structural design, which may include ground stabilization, selecting appropriate foundation type and depths, selecting appropriate structural systems to accommodate anticipated displacements, or any combination of these measures. The potential for liquefaction and soil strength loss must be evaluated for site-specific peak ground acceleration magnitudes and source characteristics consistent with the design earthquake ground motions (ICC, 2016).

For a given project, the preliminary geotechnical report based on the initial design is prepared prior to the CEQA document (as has been done for this project in the form of the Geotechnical Conditions Report by GEOCON) and to a level sufficient to support the CEQA document. The CEQA document analyzes the impacts with the understanding that subsequent to the certification of the CEQA document, the project applicant will complete the final design, including the preparation of a final geotechnical report. The final geotechnical report would include the results and recommendations of the preliminary geotechnical report, and add further detail if needed to address the final project design and relevant mitigation measures identified in the CEQA document (e.g., if a pole location moves in response to a mitigation measure to a location that was not studied in the preliminary report). In the case of the Project, the final geotechnical report will be in the form of a supplemental geotechnical report addressing specific geotechnical hazards that may impact the Project.

California Public Utilities Commission General Orders 95 and 128

California Public Utilities Commission (CPUC) General Orders (GO) 95 and 128 apply to construction and reconstruction of overhead and underground electric lines in California. The replacement of poles, towers, or other structures is considered reconstruction and requires adherence to all strength and clearance requirements of this order. Since the Project proposes to

construct, reconstruct, and reconductor power lines, these orders apply to the Project. To recognize relative hazards, lines are segregated into classes defined in CPUC Rule 20.6. These classes of lines and the relation of lines to each other and to objects over which they are constructed determine construction requirements. GO 95 applies to construction activities that are associated with overhead electric line construction, which includes conductors or circuits added to crossarms, any element added to a pole, and the replacement of poles towers or other structures. GO 128 provides general standards for the construction of construction of underground electrical supply systems, including any element added to an existing underground system. The maintenance, reconstruction, and/or replacement of any existing underground system must adhere to GO 128 as well.

Design of transmission lines must adhere to the National Electric Safety Code. Guidance documents are published by the Institute of Electrical and Electronics Engineers and American Society of Civil Engineers (ASCE), including ASCE 74, Guidelines for Electrical Transmission Line Structural Loading, which states, "Transmission structures are not typically designed for vibration caused by earthquakes because these loads are less than that of wind/ice combinations." The exception to this general rule occurs if the tower is built in liquefiable materials, in which case the materials may not support the weight of the tower and tower foundation during a seismic event.

National Pollutant Discharge Elimination System (NPDES) Construction General Permit

Project construction would disturb 1.0 acre or more of land surface and could affect the quality of stormwater discharges into waters of the U.S.; therefore, it would be subject to the *NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (Order 2009-0009-DWQ, NPDES No. CAS000002; as amended by Orders 2010-0014-DWQ and 2012-006-DWQ). The Construction General Permit regulates construction-related discharges of pollutants in stormwater to waters of the U.S. from sites that disturb 1.0 or more acres of land surface, or that are part of a common plan of development or sale that disturbs more than 1.0 acre of land surface. The permit regulates stormwater discharges associated with construction or demolition activities, such as clearing and excavation; construction of buildings; and linear underground projects, including installation of water pipelines and other utility lines. See Section 3.9, *Hydrology and Water Quality*, for additional details.

Public Resources Code Section 5097.5 and Section 30244

State requirements for paleontological resource management are included in Public Resources Code (PRC) Section 5097.5 and Section 30244. These statutes prohibit the removal of any paleontological site or feature from public lands without permission of the jurisdictional agency, define the removal of paleontological sites or features as a misdemeanor, and require reasonable mitigation of adverse impacts to paleontological resources from developments on public (State, county, city, district) lands.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act was passed in 1990 following the Loma Prieta earthquake to reduce threats to public health and safety and to minimize property damage caused by earthquakes. This act requires the State Geologist to delineate various seismic hazard zones, and

cities, counties, and other local permitting agencies to regulate certain development projects within these zones. For projects that would locate structures for human occupancy within designated Zones of Required Investigation, the Seismic Hazards Mapping Act requires project applicants to perform a site-specific geotechnical investigation to identify the potential site-specific seismic hazards and corrective measures, as appropriate, prior to receiving building permits (CDC, 2007). The *CGS Guidelines for Evaluating and Mitigating Seismic Hazards* (Special Publication 117A) provides guidance for evaluating and mitigating seismic hazards (CGS, 2008). The CGS is in the process of producing official maps based on USGS topographic quadrangles, as required by the Act. To date, there is no available information on the four topographic quadrangles that encompass the study area (i.e., the San Marcos, Rancho Santa Fe, Escondido, and Valley Center quadrangles).

Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Project. No local regulations are relevant to this analysis for the purpose of identifying any adverse environmental impacts that have not already been considered.

3.7.3 Applicant Proposed Measures

SDG&E has proposed the following Applicant Proposed Measures (APMs) to address impacts to paleontological resources attributable to Project construction, operations, and/or maintenance. Based on the following impact analyses, in instances where these APMs were found not to adequately reduce the impacts to a less-than-significant level, the APMs have been superseded by mitigation measures put forth by the CPUC.

APM PALEO-1: Prior to the initiation of construction or ground-disturbing activities, all SDG&E contractor, and subcontractor personnel will receive training regarding the appropriate work practices necessary to effectively implement the APMs and to comply with the applicable environmental laws and regulations. The training will address the potential for exposing paleontological resources and procedures to be followed upon discovery or suspected discovery.

APM PALEO-2: A qualified Project paleontologist (or qualified paleontological monitor working under the direction of a qualified Project paleontologist) will attend a preconstruction meeting, as needed, to consult with the excavation contractor concerning excavation schedules, paleontological field techniques, and safety.

APM PALEO-3: A qualified paleontological monitor will work under the direction of the qualified Project paleontologist and will be on site to observe excavation operations that involve the original cutting of previously undisturbed deposits with high or moderate paleontological resource sensitivity.

APM PALEO-4: Prior to construction, a paleontological resource consultant will be retained by SDG&E to complete an analysis and assessment of the potential to disturb resources from major ground-disturbing activities, such as facility pad grading, trenching, or new access road grading.

APM PALEO-5: In the event that fossils are encountered, the Project paleontological monitor will have the authority to divert or temporarily halt construction activities in the area of discovery to allow recovery of fossil remains in a timely fashion. The Project paleontological monitor shall contact SDG&E's Cultural Resource Specialist at the time of discovery. The paleontologist, in consultation with SDG&E's Cultural Resource Specialist, will determine the significance of the discovered resources. SDG&E's Cultural Specialist must concur with the evaluation procedures to be performed before construction activities are allowed to resume. If the resource is determined to be significant, it may be necessary to set up a small screen washing operation on site because of the potential for small fossil remains. If fossils are discovered, the paleontologist (or paleontological monitor) will recover them along with pertinent stratigraphic data. Because of the potential for recovery of small fossil remains, such as isolated mammal teeth, recovery of bulk sedimentary-matrix samples for offsite wet screening from specific strata may be necessary, as determined in the field. Fossil remains collected during monitoring and salvage will be cleaned, repaired, sorted, cataloged, and deposited in a scientific institution with permanent paleontological collections. A final monitoring report will be completed that outlines the results of the mitigation. The report will discuss the methods used, stratigraphic sections(s) exposed, fossils collected, and significance of recovered fossils.

3.7.4 Environmental Impacts and Mitigation Measures

Discussion

a.i) Whether the Project would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault: *LESS THAN SIGNIFICANT IMPACT*.

There are no Earthquake Fault Zones in the study area, as would be delineated on Alquist-Priolo Earthquake Fault Zoning Maps. However, there are active faults in the surrounding area. Project activities include rebuilding existing circuits, constructing new single-circuit power lines, reconductoring power lines, upgrading existing substations, and replacing wooden poles with new steel poles. Aside from routine maintenance by SDG&E employees, the substations would not be staffed. None of the proposed activities would increase the risk of exposure of people to loss, injury, or death involving rupture of a known fault. The impacts under this criterion would be less than significant.

a.ii) Whether the Project would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking: *LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED.*

Strong seismic ground shaking could occur in the study area because there are active fault zones near the Project. While the Project would be located in a seismically active area, the substations and associated infrastructure would not be used for human occupancy, nor would any Project components exacerbate the existing risk of seismic shaking or associated damage. All Project components would be designed and constructed consistent with CPUC GO 95 and the applicable

sections of the CBC. As discussed in the CBC subsection in Section 3.7.2, *Regulatory Setting*, upon certification of the CEQA document, the Project applicant would prepare the final design, including a supplemental report to accompany the Geotechnical Conditions Report by GEOCON, which would address site-specific geotechnical hazards that may impact the Project. The supplemental geotechnical report would include the results and recommendations from GEOCON Inc.'s geotechnical conditions investigation, updated to include information regarding the final project design (e.g., any changes in pole locations and analysis of site-specific geotechnical hazards). Compliance with all the applicable design parameters would reduce the impacts associated with seismic ground shaking. However, although a supplemental geotechnical investigation would be required as part of the final design as required by the CBC, review of GEOCON Inc.'s Geotechnical Conditions Report revealed that landslides and corrosive soils had not been adequately investigated and could result in a significant impact without incorporation of appropriate geotechnical recommendations into final project plans.

The implementation of **Mitigation Measure GEO-1** would require the Project to adhere to and implement the recommendations from the Geotechnical Conditions Report by GEOCON Inc., as well as the supplemental report that will accompany it. The supplemental report shall add investigation and analysis to address impacts associated with potential ground shaking that could trigger landslides and, as discussed below under Question d, the investigation of corrosive soils and provide recommendations, as needed.

> **Mitigation Measure GEO-1: Geotechnical Report.** The structural requirements of the California Building Code (CBC) are applicable to certain structural components of the Project, including retaining walls, screen walls, fences, and control shelters. SDG&E and/or its contractors shall design such structures to comply with such CBC standards and shall adhere to and implement all design recommendations and parameters established in the Project's Geotechnical Investigation Report by GEOCON Inc. and the AC Interference Analysis & Mitigation System Design by ARK Engineering & Technical Services. In addition, SDG&E shall retain a California registered professional engineer(s) to prepare a supplemental geotechnical report. This report shall address specific geotechnical hazards that were not addressed in the Geotechnical Investigation Report, and provide recommendations for mitigating such hazards. The analysis in that report shall include, but not be limited to, the following:
>
> - Recommendations to address the liquefaction risk within the Quaternary alluvium along Segment 1 and 3, if any;
> - Recommendations to address the corrosive soils that are present along Segments 1 and 2, if any, which pose a risk to the concrete pier foundations and direct bury poles;
> - Recommendations to address the landslide potential along Segment 2, if any, where planned ground disturbing activities could trigger landslides;
> - Evaluation of the site-specific conditions and recommendations specific to micropiles where proposed, if final design includes the use of micropiles.
>
> The recommendations shall ensure that when incorporated, the Project shall not increase the potential for ground failure, slope instability, and/or landslides, and shall be resistant to damage from ground shaking, ground failure, corrosive soils, unstable slopes, and

landslides. SDG&E shall submit the supplemental geotechnical report to the CPUC Project Manager for review and approval at least 30 days prior to the start of construction.

Significance after Mitigation: Adherence to CPUC GO 95, as well as Mitigation Measure GEO-1, which requires the Project adhere and implement the seismic design recommendations of the Geotechnical Conditions Report by GEOCON Inc., the supplemental geotechnical report, and the AC interference analysis and mitigation report would ensure a less-than-significant impact associated with seismic ground shaking.

a.iii) Whether the Project would directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction: *LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED.*

The majority of Project components would replace and/or upgrade existing facilities in similar locations, including existing poles along the reconductoring route. As noted above, the Project would be designed consistent with the CPUC GO 95 and applicable sections of the CBC, which would also reduce the risk from seismically-induced ground failures. However, because the effects of seismically-induced ground failures are a direct result of ground shaking produced by earthquakes, there would still be a significant impact related to seismically-induced ground failures. The implementation of **Mitigation Measure GEO-1**, would require the Project to adhere to and implement the recommendations from the Geotechnical Conditions Report by GEOCON Inc., and any additional recommendations put forth in the supplemental geotechnical report that specifically address the impacts associated with seismically-induced ground failures.

Mitigation Measure GEO-1: Geotechnical Report. See full text of this Mitigation Measure under Question a.ii, above.

Significance after Mitigation: With the implementation of appropriate soil engineering measures identified in the Project's Geotechnical Conditions Report and supplemental geotechnical report, such as the use of well-compacted non-expansive engineered fill containing a mix of soil particle sizes, liquefaction susceptibility of soils supporting Project structures would be reduced further. Therefore, through the implementation of Mitigation Measure GEO-1, the extent to which the Project would directly or indirectly cause or exacerbate the exposure of people or structures to seismic-related ground failure would be less than significant.

a.iv) Whether the Project would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides: *LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED.*

As stated in 3.7.1, *Environmental Setting*, Segments 2 and 3 have a general susceptibility for landslides as the topography along Segments 2 and 3 has areas of varying slope. Due to this general susceptibility, the Project would face a significant impact related to landslides. To ensure that Project activities (i.e., construction and maintenance) would not directly or indirectly exacerbate the current conditions, **Mitigation Measure GEO-1** would require the supplemental geotechnical report to analyze for any slope instability along portions of the Project that are designated as susceptible to landslides by regulatory maps provided by the CGS.

Mitigation Measure GEO-1: Geotechnical Report. See full text of this Mitigation Measure under Question a.ii, above.

Significance after Mitigation: With implementation of Mitigation Measure GEO-1, the impacts associated with landslides would be addressed with specific design measures and recommendations to reduce this potential. Therefore, this impact would be less than significant.

b) Whether the Project would result in substantial soil erosion or the loss of topsoil: *LESS THAN SIGNIFICANT IMPACT.*

The Project would include ground-disturbing construction activities, including trenching and directional drilling, which could increase the risk of erosion or sediment transport. Total ground disturbance would be more than 1.0 acre. Construction would have the potential to result in soil erosion during excavation, grading, trenching, and soil stockpiling. Because the overall footprint of construction activities would exceed 1.0 acre, the Project would be required to comply with the Construction General Permit, described above in Section 3.7.2, *Regulatory Framework*, and as discussed in Section 3.9, *Hydrology and Water Quality*. This state requirement was developed to ensure that stormwater is managed and erosion is controlled on construction sites. The Construction General Permit requires preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP), which requires applications of Best Management Practices (BMPs) to control run-on and runoff from construction work sites. The BMPs would include, but would not be limited to, physical barriers to prevent erosion and sedimentation, construction of sedimentation basins, limitations on work periods during storm events, use of infiltration swales, protection of stockpiled materials, and a variety of other measures that would substantially reduce or prevent erosion from occurring during construction. Compliance with these independently enforceable existing requirements would reduce the Project's potential impacts associated with soil erosion and loss of topsoil during construction to less than significant.

c) Whether the Project would be located on geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse: *LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED.*

As previously discussed, the Geological Conditions Report by GEOCON Inc. recognizes the possibility of soil liquefaction in certain areas, specifically the alluvial floodplain deposits present in Segments 1 and 3. Additionally, slope instability maps indicate that Segments 2 and 3 would have general susceptibility to landslides (see Figure 3.7-5). The unstable soils and/or the underlying geology would present a significant impact; as such, **Mitigation Measure GEO-1**, described above in Question a.ii, would require a supplemental geotechnical investigation to analyze for landslide potential and soil instability in areas that have been designated as generally susceptible to landslides by regulatory maps from the CGS. If significant impacts arise from that investigation, appropriate design recommendations would be implemented (also required by Mitigation Measure GEO-1). Adherence to these measures would reduce impacts to a less-than-significant level.

Mitigation Measure GEO-1: Geotechnical Report. See full text of this Mitigation Measure under Question a.ii., above.

Significance after Mitigation: With implementation of Mitigation Measure GEO-1, the impacts associated with unstable geologic or soil units would be addressed by specific testing for the degree of instability in the soils and development of specific design measures and recommendations to reduce the potential for significant impacts related to soil instability. Therefore, the impact would be reduced to a less-than-significant level.

d) Whether the Project would be located on expansive or corrosive soil, creating substantial direct or indirect risks to life or property: *LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED.*

Expansive Soil

The laboratory test that was performed as part of the Geological Conditions Report identified some soils that exhibit low to medium expansion potential (GEOCON Inc., 2017). The CBC considers soils that have an Expansion Index of 20 or more to be expansive. Of the three samples tested, Sample B5-1 (located along Segment 1) has an Expansion Index of 68, which is considered a medium expansion potential. The impacts to life or property associated with expansive soils would be significant. The Project design and construction activities would be required to comply with CPUC rules and would employ standard engineering and building practices common to construction projects throughout California. In addition, the Geological Conditions Report by GEOCON Inc. provides design recommendations that would reduce the impacts associated with expansive soils. Adherence to the CPUC General Orders and the design recommendations with the Geological Conditions Report by GEOCON Inc., as well as implementation of **Mitigation Measure GEO-1**, which requires the Project to adhere to all pertinent design standards promulgated by the applicable sections of the CBC and to implement the recommendations presented in the Project's supplemental geotechnical investigation, would ensure the impacts under this criterion would be less than significant.

Corrosive Soil

The direct bury poles that would be installed in the ground are galvanized steel, which are at a low risk of corrosion. Likewise, the steel casings used for the micropile foundations would be galvanized. The steel poles that would be anchored in a concrete pier foundation would be exposed to soils that are moderately corrosive to concrete. Areas along the alignment where concrete pier foundations may be exposed to corrosive soils would be along the westernmost 350 feet of Segment 1, the entirety of Segment 2, and west and east ends of Segment 3. The impacts associated with corrosive soils would be significant if action is not taken to address these risks. In response to these potential impacts, the Project would be required to comply with the applicable CBC sections, which include conducting a supplemental geotechnical investigation to identify geotechnical hazards and providing recommendations to address those hazards.

The induced AC interference investigation discussed above in Section 3.7.1, *Environmental Setting*, concluded that the induced AC interference current is not within acceptable design limits. This induced AC interference is known to contribute to the corrosive properties of soils. This contribution from the induced AC interference current, coupled with the existing moderate corrosion potential of the soil, would create a significant impact to life or property. To address this potential hazard, the Project includes an AC interference mitigation system what would include the installation of 11 deep wells along specific pipeline sections, as well as three

AC coupon test stations to monitor the pipeline currents (refer to Section 2.4.3, *Alternating Current (AC) Interference Mitigation System*). The deep wells would house grounding rods serving to redirect any induced or errant AC away from pipelines and reduce the risk of soil corrosion.

These requirements would be enforced by **Mitigation Measure GEO-1**, which requires the Project to comply with the recommendations detailed in the Geotechnical Conditions Report, the AC Interference Analysis & Mitigation System Design (ARK Engineering & Technical Services, 2017), and an accompanying supplemental geotechnical report. The implementation of the geotechnical and AC mitigation design recommendations would reduce the impact of corrosive soils to the concrete foundations to less than significant.

> **Mitigation Measure GEO-1: Geotechnical Report.** See full text of this Mitigation Measure under Question a.ii, above.
>
> **Significance after Mitigation:** With the implementation of appropriate soil engineering measures identified in the Project's Geotechnical Conditions Report, the AC Interference Analysis & Mitigation System Design, and the supplemental geotechnical report, such as the use of well-compacted non-expansive engineered fill containing a mix of soil particle sizes, expansive susceptibility and corrosion potential of soils supporting Project structures would be reduced further. Therefore, this impact would be less than significant.

e) Whether the Project would have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater: *NO IMPACT.*

The Project would not include the use of septic tanks or any alternative wastewater disposal systems. For this reason, the Project would not introduce an environmental or public health hazard by building septic tanks or other wastewater disposal systems in soils that are incapable of adequately supporting such systems. Therefore, no impact would occur.

f) Whether the Project would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. *LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED.*

Construction-associated grading, excavation, and drilling for Project components could destroy paleontological resources. The loss of a unique paleontological resource or site that could yield information important to prehistory, or that embodies the distinctive characteristics of a type of organism, environment, period of time, or geographic region, would be a significant environmental impact. Direct impacts on paleontological resources primarily concern the potential destruction of nonrenewable paleontological resources and the loss of information associated with these resources. This includes the unauthorized collection of fossil remains. If potentially fossiliferous bedrock or surficial sediments are disturbed, the disturbance could result in the destruction of paleontological resources and subsequent loss of information.

For Project sites that are underlain by paleontologically sensitive geologic units, the greater the amount of ground disturbance, the higher the potential for significant impacts to paleontological resources. For Project sites that are directly underlain by geologic units with no paleontological

sensitivity, there is no potential for impacts on paleontological resources unless sensitive geologic units which underlie the non-sensitive unit are also affected. The County of San Diego notes in its Guidelines for Determining Significance, "It is the opinion of local paleontological professionals that when the volume of excavation exceeds 2,500 cubic yards, the potential loss of paleontological resources is much higher than for lesser amounts of excavation" (County of San Diego, 2009). These guidelines indicate that for projects within areas of High or Moderate Paleontological Resources Potential that propose excavation equal to or greater than 2,500 cubic yards, the services of a qualified paleontological monitor should be required.

As described in Section 3.7.1, Environmental Setting, the Santiago Formation beneath Segment 1 and a portion of Segment 2 has a high potential for paleontological resources, and many fossil localities already have been found in the Santiago Formation. Project-related ground disturbance within this formation would result in a significant impact on the paleontological resources in the area if it were to destroy unique paleontological resources. Given the high potential for the presence of such resources, it is assumed that excavation and grading in Segments 1 and portions of Segment 2 within the Santiago Formation, as well as for the AC interference mitigation system installation, would have a high likelihood of destroying paleontological resources. Based on the pole foundation types listed in Table 2-2 and shown in Appendix A, this analysis assumes that up to 27 direct-bury poles and 14 pier or micropile foundation poles would be constructed within the Santiago Formation in Segments 1 and 2. The approximate excavation volume would be up to 10 cubic yards for each direct bury pole. It is conservatively assumed that the excavation volume for each pier foundation pole would be 100 cubic yards. Thus, pole installation in the Santiago Formation would result in up to 1,670 cubic yards of excavation. Additional excavation would occur in support of the proposed retaining walls in the portion of Segment 2 that is within the Santiago Formation. Construction of the AC interference mitigation system would result in approximately 15 cubic yards of drilling spoils, with additional trenching to place the copper wire. In total, although the Project excavation within the Santiago Formation may be under 2,500 cubic yards, this analysis assumes that the excavation volumes are sufficient to result in a potentially significant impact requiring the use of a qualified paleontological monitor and other mitigation measures.

To reduce impacts on paleontological resources, SDG&E proposed APMs Paleo-1 through Paleo-5 requiring employee training, monitoring by a qualified paleontological monitor, assessment of disturbance potential, and fossil recovery, preservation, and documentation. The CPUC has determined that these APMs would not reduce or avoid significant impacts on paleontological resources to below the level of significance because they do not adequately identify personnel qualification standards, worker training standards, monitoring protocols, or recovery and documentation standards. Therefore, APMs Paleo-1 through Paleo-5 are superseded by **Mitigation Measures PALEO-1** through **PALEO-4**. To ensure the preservation of any paleontological resources that may be encountered during Project construction, the CPUC would require implementation of **Mitigation Measures PALEO-1** through **PALEO-4** to provide performance standards and other mitigation requirements to ensure that the impacts to paleontological resources are reduced to a less-than-significant level.

Mitigation Measure PALEO-1: Project Paleontologist. SDG&E or its contractor shall retain a qualified professional paleontologist (qualified paleontologist) meeting the Society of Vertebrate Paleontology (SVP) standards as set forth in the "Definitions" section of Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources (2010) prior to the approval of demolition or grading permits. The qualified paleontologist shall attend the Project kick-off meeting and Project progress meetings on a regular basis, shall report to the site in the event potential paleontological resources are encountered, and shall implement the duties outlined in Mitigation Measures PALEO-2 through PALEO-4.

Mitigation Measure PALEO-2: Worker Training. Prior to the start of any ground-disturbing activity (including vegetation removal, pavement removal, etc.), the qualified paleontologist shall prepare paleontological resources sensitivity training materials for use during Project-wide Worker Environmental Awareness Training (or equivalent). The paleontological resources sensitivity training shall be conducted by a qualified environmental trainer (often the Lead Environmental Inspector [LEI] or equivalent position) working under the supervision of the qualified paleontologist. In the event construction crews are phased, additional trainings shall be conducted for new construction personnel. The training session shall focus on the recognition of the types of paleontological resources that could be encountered within the Project site and the procedures to be followed if they are found, as outlined in the approved Paleontological Resources Monitoring and Mitigation Plan in Mitigation Measure PALEO-3. SDG&E and/or its contractor shall retain documentation demonstrating that all construction personnel attended the training prior to the start of work on the site, and shall provide the documentation to the CPUC Project Manager upon request.

Mitigation Measure PALEO-3: Paleontological Monitoring. The qualified paleontologist shall prepare, and SDG&E and/or its contractors shall implement, a Paleontological Resources Monitoring and Mitigation Plan (PRMMP). SDG&E shall submit the plan to the CPUC Project Manager for review and approval at least 30 days prior to the start of construction. This plan shall address specifics of monitoring and mitigation and comply with the recommendations of the SVP (2010), as follows.

- The qualified paleontologist shall identify, and SDG&E or its contractor(s) shall retain, qualified paleontological resource monitors (qualified monitors) meeting the SVP standards (2010).
- The qualified paleontologist and/or the qualified monitors under the direction of the qualified paleontologist shall conduct full-time paleontological resources monitoring for all ground-disturbing activities in previously undisturbed sediments in the Project site that have high paleontological sensitivity. This includes any depth of excavation into the Santiago Formation, as well as excavations that exceed 10 feet in depth in areas mapped as young alluvial floodplain deposits that overlie the Santiago Formation. The PRMMP shall clearly map these portions of the Project based on final design provided by SDG&E and/or its contractor(s).
- If many pieces of heavy equipment are in use simultaneously but at diverse locations, each location will need to be individually monitored.
- Monitors shall have the authority to temporarily halt or divert work away from exposed fossils in order to evaluate and recover the fossil specimens, establishing a 50-foot buffer.

- If construction or other Project personnel discover any potential fossils during construction, regardless of the depth of work or location and regardless of whether the site is being monitored, work at the discovery location shall cease in a 50-foot radius of the discovery until the qualified paleontologist has assessed the discovery and made recommendations as to the appropriate treatment.

- The qualified paleontologist shall determine the significance of any fossils discovered, and shall determine the appropriate treatment for significant fossils in accordance with the SVP standards. The qualified paleontologist shall inform SDG&E of these determinations as soon as practicable. See Mitigation Measure PALEO-4 regarding significant fossil treatment.

- Monitors shall prepare daily logs detailing the types of activities and soils observed, and any discoveries. The qualified paleontologist shall prepare a final monitoring and mitigation report to document the results of the monitoring effort and any curation of fossils. SDG&E shall provide the daily logs to the CPUC Project Manager upon request, and shall provide the final report to the CPUC Project Manager upon completion.

Mitigation Measure PALEO-4: Significant Fossil Treatment. If any find is deemed significant, as defined in the SVP standards (2010) and following the process outlined in Mitigation Measure PALEO-3, the qualified paleontologist shall salvage and prepare the fossil for permanent curation with a certified repository with retrievable storage following the SVP standards.

Significance after Mitigation: These mitigation measures require qualified technical specialists to provide oversight and worker training, as well as define the specialists' qualifications, the nature of the specialists' involvement in Project work, and worker training content. These measures also provide clear parameters for resource monitoring and steps to be executed if a paleontological resource is discovered. With these defined requirements, any fossils encountered during Project excavation would be recovered and treated so that the permanent loss of resources and valuable information is minimized. Although fossils would not be recoverable from the AC interference mitigation system deep wells due to the proposed excavation method, the potential loss resulting from these well would not constitute a significant loss (i.e., a total of up to 15 cubic yards spread among 11 deep wells with 6- to 8-inch diameters, or approximately 1 percent of total Project excavation within the Santiago Formation). Identification and curation of fossils from the remaining Project excavation within the Santiago Formation would contribute to the paleontological record for this location. Potential impacts on unique paleontological resources would be less than significant with implementation of mitigation measures.

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3.8 Greenhouse Gas Emissions

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
8.	**GREENHOUSE GAS EMISSIONS — Would the project:**				
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b)	Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

This section describes the Project's estimated greenhouse gas (GHG) emissions and their impact on the environment, as well as any potential conflicts with GHG-related plans, policies, and regulations. For the purposes of this analysis, the significance threshold relevant to Project-specific emissions is distinct to the County of San Diego, which is contiguous with the San Diego Air Basin boundaries, and is used as the Project-specific study area.

3.8.1 Environmental Setting

Climate Change

According to the U.S. Environmental Protection Agency (USEPA), the term "climate change" refers to any significant change in measures of climate (such as temperature, precipitation, or wind) lasting for an extended period (over several decades or longer). There is scientific consensus that climate change is occurring and that human activity contributes to that change. Gases that trap heat in the atmosphere are often called GHGs. Emissions of GHGs, if not sufficiently curtailed, are likely to contribute further to increases in global temperatures. The potential effects of climate change in California include sea level rise and reductions in snowpack, as well as an increased number of extreme-heat days per year, high ozone days, large forest fires, and drought years (CARB, 2018). Globally, climate change could affect numerous environmental resources through potential, though uncertain, changes in future air temperatures and precipitation patterns. According to the International Panel on Climate Change (IPCC), the observed and/or projected effects of climate change vary regionally, but include the following direct effects (IPCC, 2014):

- Changing precipitation and snow melt patterns;
- Negative effect on crop yield;
- Increased heat waves, drought, flood, wildfires, and storm events;
- Reduced renewable water resources in most dry subtropical regions; and
- Ocean acidification damage to marine ecosystems.

In addition, many secondary effects are projected to result from climate change, including a global rise in sea level, ocean acidification, impacts on agriculture, changes in disease vectors,

and changes in habitat and biodiversity. The possible outcomes and feedback mechanisms involved are not fully understood, and much research remains to be done; however, over the long term, the potential exists for substantial environmental, social, and economic consequences.

Greenhouse Gas Emissions

Both natural processes and human activities emit GHGs. The accumulation of GHGs in the atmosphere regulates the Earth's temperature; however, emissions from human activities – such as burning fossil fuels (e.g., oil, natural gas, and coal) for electricity production and heat and the use of fossil fuel-powered motor vehicles – have elevated the concentration of GHGs in the atmosphere. This accumulation of GHGs has contributed to an increase in the temperature of the Earth's atmosphere and to global climate change.

GHG emissions that result from human activities primarily include carbon dioxide (CO_2), with much smaller amounts of nitrous oxide (N_2O), methane (CH_4, often from unburned natural gas), sulfur hexafluoride (SF_6) from high-voltage power equipment, and hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs) from refrigeration/chiller equipment. Because these GHGs have different warming potentials (i.e., the amount of heat trapped in the atmosphere by a certain mass of the gas), and CO_2 is the most common reference gas for climate change, GHG emissions are often quantified and reported as CO_2-equivalent (CO_2e) emissions. For example, while SF_6 represents a small fraction of the total annual GHGs emitted worldwide, this gas is very potent, with 23,900 times the global warming potential of CO_2. Therefore, an emission of 1 metric ton of SF_6 would be reported as 23,900 metric tons CO_2e. The global warming potential of CH_4 and N_2O are 25 times and 298 times that of CO_2, respectively (CARB, 2016a). The principal GHGs resulting from human activity that enter and accumulate in the atmosphere are described below.

Carbon Dioxide

CO_2 is a naturally occurring gas that enters the atmosphere through natural as well as anthropogenic (human) sources. Key anthropogenic sources include the burning of fossil fuels, solid waste, trees, wood products, and other biomass, as well as industrially relevant chemical reactions such as those associated with manufacturing cement. CO_2 is removed from the atmosphere when it is absorbed by plants as part of the biological carbon cycle.

Methane

Like CO_2, CH_4 is emitted from both natural and anthropogenic sources. Key anthropogenic sources of CH_4 include gaseous emissions from landfills, releases associated with mining and materials extraction industries (in particular coal mining), and fugitive releases associated with the extraction and transport of natural gas and crude oil. CH_4 emissions also result from livestock and agricultural practices. Small quantities of CH_4 are released during fossil fuel combustion.

Nitrous Oxide

N_2O is also emitted from both natural and anthropogenic sources. Important anthropogenic sources include industrial activities, agricultural activities (primarily the application of nitrogen fertilizer), the use of explosives, combustion of fossil fuels, and decay of solid waste.

Fluorinated Gases

HFCs, PFCs, and SF_6 are synthetic gases emitted from a variety of industrial processes. They contribute substantially more to the greenhouse effect on a pound-for-pound basis than the GHGs described previously. Fluorinated gases are often used as substitutes for ozone-depleting substances (i.e., chlorofluorocarbons, hydrochlorofluorocarbons, and halons). These gases are typically emitted in small quantities, but because of their potency they are sometimes referred to as "high global warming potential gases." Fluorinated gases in the form of SF_6 can be emitted by circuit breakers such as those used at substations.

Greenhouse Gas Sources

Anthropogenic GHG emissions in the United States result mostly from the combustion of fossil fuels for transportation and power production. Energy-related CO_2 emissions resulting from fossil fuel exploration and use account for approximately three-quarters of the human-generated GHG emissions in the United States, primarily in the form of CO_2 emissions. More than half of the energy-related emissions come from large stationary sources, such as power plants; approximately one-third derive from transportation; and most of the remaining emissions come from industrial processes, agriculture, commercial, and residential uses (USEPA, 2016a).

Table 3.8-1 summarizes statewide emissions of GHGs from relevant source categories for 2010 through 2016. Specific contributions from individual air basins, such as the San Diego Air Basin, which encompasses the Project, are included in the emissions inventory but are not itemized by air basin. In 2016, California produced 429.4 million gross metric tons of CO_2e emissions. Transportation was the source of 41 percent of the state's GHG emissions, followed by industrial at 23 percent, electricity generation at 16 percent, commercial and residential sources at 12 percent, and agriculture and forestry comprised the remaining 8 percent (CARB, 2018).

TABLE 3.8-1
CALIFORNIA GHG EMISSIONS (MILLION METRIC TONS CO_2E)

Emission Inventory Category	2010	2011	2012	2013	2014	2015	2016	
Electricity Generation (In State)	46.91	41.37	51.18	49.60	51.81	50.21	42.67	9.9%
Electricity Generation (Imports)	43.67	46.94	44.15	40.24	36.56	33.88	26.28	6.1%
Transportation	170.16	166.52	166.16	165.80	167.14	170.89	174.01	40.5%
Industrial	100.93	100.63	100.89	103.75	104.23	102.10	100.37	23.4%
Commercial	20.09	20.73	21.11	21.64	21.37	22.07	23.04	5.4%
Residential	31.26	32.03	30.04	31.19	26.26	27.05	28.34	6.6%
Agriculture and Forestry	34.27	34.89	36.08	34.61	35.95	34.41	33.84	7.9%
Not Specified (Solvents & Chemicals)	0.82	0.79	0.78	0.77	0.78	0.79	0.79	0.2%
Total Gross Emissions	448.1	443.9	450.4	447.6	444.1	441.4	429.4	**100.0%**

SOURCE: CARB, 2018.

3.8.2 Regulatory Setting

Federal

Clean Air Act

On April 2, 2007, in Massachusetts v. USEPA (549 US 497), the U.S. Supreme Court found that GHGs are air pollutants covered by the Clean Air Act. On April 17, 2009, the USEPA Administrator signed proposed "endangerment" and "cause or contribute" findings for GHGs under Section 202(a) of the Clean Air Act. The USEPA found that six GHGs, taken in combination, endanger both the public health and the public welfare of current and future generations. Pursuant to 40 CFR Part 52, *Proposed Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule*, USEPA has mandated that Prevention of Significant Deterioration (PSD) and Title V requirements apply to facilities whose stationary source CO_2e emissions exceed 100,000 tons per year (USEPA, 2016b). The Project would not trigger PSD or Title V permitting under this regulation because it would generate less than 100,000 tons of CO_2e emissions per year.

40 CFR Part 98. Use of Electric Transmission and Distribution Equipment

Pursuant to federal regulations (40 CFR Part 98, Subpart DD), operators of certain electrical facilities, such as SF_6-containing circuit breakers, are required to report SF_6 emissions to the USEPA (USEPA, 2016c). The SF_6-containing circuit breakers associated with the Project would be subject to reporting under this regulation.

State

Executive Order B-55-18

In September 2018, Governor Brown signed EO B-55-18, committing California to total, economy-wide carbon neutrality by 2045. EO B-55-18 directs CARB to work with state agencies to develop an implementation framework for and accounting that tracks progress toward this goal.

Renewables Portfolio Standard and Senate Bill 100

The state's Renewables Portfolio Standard (RPS) is described in detail in Section 3.6, *Energy*. SB 100, passed in 2018, revised the goal of the program to achieve a 50 percent renewable resources target by 2026, and a 60 percent target by 2030. Additionally, SB 100 created a policy of the state that eligible renewable energy resources and zero-carbon resources must supply 100 percent of retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by 2045.

Executive Order S-3-05

In June 2006, Governor Schwarzenegger signed Executive Order S-3-05, which established the following statewide emission-reduction targets through the year 2050:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and

- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

This executive order does not contain any requirements that directly pertain to the Project.

Assembly Bill 32

California Assembly Bill (AB) 32, *the Global Warming Solutions Act of 2006*, required the California Air Resources Board (CARB) to establish a statewide GHG emissions target for 2020 based on 1990 emission levels. AB 32 required CARB to adopt regulations that identify and require selected sectors or categories of emitters of GHGs to report and verify their statewide GHG emissions, and CARB is authorized to enforce compliance with the program. Under AB 32, CARB also was required to adopt a statewide GHG emissions limit equivalent to the statewide GHG emissions levels in 1990, which must be achieved by 2020. CARB established this limit in December 2007 at 427 million metric tons of CO_2e. This is approximately 30 percent below forecasted "business-as-usual" emissions of 596 million metric tons of CO_2e in 2020, and about 10 percent below average annual GHG emissions during the period of 2002 through 2004 (CARB, 2009). In the interest of achieving the maximum technologically feasible and cost-effective GHG emission reductions, AB 32 permits the use of market-based compliance mechanisms such as the cap-and-trade program and requires CARB to monitor compliance with and enforce any rule, regulation, order, emission limitation, emissions reduction measure, or market-based compliance mechanism that it adopts.

California Climate Change Scoping Plan

Pursuant to AB 32, CARB adopted a *Climate Change Scoping Plan* in December 2008 (CARB, 2008) outlining measures to meet the 2020 GHG reduction goals. In order to meet these goals, California must reduce its GHG emissions by 30 percent below projected 2020 business-as-usual emissions levels or about 15 percent from today's levels. The Scoping Plan recommends measures that are worth studying further, and that the State of California may implement, such as new fuel regulations. Of these measures, only one is directly relevant to the Project. Measure H-6, High Global Warming Potential Gases, was designed to reduce emissions of SF_6 within the electric utility sector and at particle accelerators by requiring the use of best achievable control technology to detect and repair leaks, and the recycling of SF_6. It estimates that a reduction of 174 million metric tons of CO_2e (about 191 million U.S. tons) from the transportation, energy, agriculture, forestry, and other sources could be achieved should the state implement all of the measures in the Scoping Plan. The Scoping Plan relies on the requirements of Senate Bill (SB) 375 (discussed below) to implement the carbon emission reductions anticipated from land use decisions. In May 2014, CARB published its *First Update to the Scoping Plan* (CARB, 2014), building upon the initial Scoping Plan with new strategies and recommendations.

In November 2017, CARB published *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target*, which takes into account the key programs associated with implementation of the other two Scoping Plans—such as GHG reduction programs for cars, trucks, fuels, industry, and electrical generation—and builds upon, in particular, existing programs related to the Cap-and-Trade Regulation; the Low Carbon Fuel Standard; much cleaner cars, trucks, and freight movement; power generation for the state using cleaner renewable

energy; and strategies to reduce methane emissions from agricultural and other wastes by using it to meet the state's energy needs. The 2017 Scoping Plan also addresses, for the first time, GHG emissions from natural and working lands, including the agriculture and forestry sectors. It is intended to set forth a program to achieve the 2030 GHG emissions reduction target established by SB 32 of 40 percent below 1990 levels by 2030 (see below). (CARB, 2017)

Mandatory Reporting Requirements

Pursuant to California Code of Regulations Title 17, Sections 95100 through 95158, operations of large industrial stationary combustion and process emissions sources that emit 10,000 metric tons CO_2e or more per calendar year are required to report and verify their GHG emissions to CARB. As indicated in Table 3.8-3, the total amortized GHG emissions for the Project would be 74.1 metric tons CO_2e per year, which is below the AB 32 reporting threshold; therefore, the Project would not be subject to the AB 32 mandatory reporting requirements.

Market-Based "Cap-and-Trade" Compliance Mechanism

AB 32 allows the use of market-based compliance mechanisms to achieve the maximum technologically feasible and cost-effective GHG emission reductions, and CARB has since adopted a cap-and-trade program that covers major sources of GHG emissions such as refineries and power plants (CARB, 2008). The program applies to facilities that would emit 25,000 metric tons or more of CO_2e per year. Since the total amortized GHG emissions for the Project are estimated at 74.1 metric tons CO_2e per year, the cap-and-trade program would not apply to the Project (see Question a below for a discussion and breakdown of the construction-related and operational Project GHG emissions).

Senate Bill 97

In 2007, the California State Legislature passed SB 97, which required amendment of the CEQA Guidelines to incorporate analysis of, and mitigation for, GHG emissions from projects subject to CEQA. The amendments took effect March 18, 2010. The amendments added Section 15064.4 to the CEQA Guidelines, specifically addressing the potential significance of GHG emissions. Section 15064.4 calls for a "good faith effort" to "describe, calculate or estimate" GHG emissions and indicates that the analysis of the significance of any GHG impacts should include consideration of the extent to which the project would:

- Increase or reduce GHG emissions;
- Exceed a locally applicable threshold of significance; or
- Comply with "regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions."

The CEQA Guidelines also state that a project may be found to have a less-than-significant impact related to GHG emissions if it complies with an adopted plan that includes specific measures to sufficiently reduce GHG emissions (14 Cal. Code Regs. § 15064(h)(3)). The CEQA Guidelines do not require or recommend a specific analytical methodology or provide quantitative criteria for determining the significance of GHG emissions.

Regulation for Reducing SF_6 Emissions from Gas Insulated Switchgear

The purpose of this regulation (17 Cal. Code Regs. § 95350 et seq.) is to achieve GHG emission reductions by reducing SF_6 emissions from gas-insulated switchgear. Owners of such switchgear must not exceed maximum allowable annual emissions rates, which are reduced each year until 2020, after which annual emissions must not exceed 1.0 percent of the total SF_6 capacity of all of the owner's active gas-insulated switchgear equipment. As defined by the regulation, the annual emissions rate equals the gas-insulated switchgear owner's total annual SF_6 emissions from all active gas-insulated switchgear equipment divided by the average annual SF_6 nameplate capacity of all active gas-insulated switchgear equipment. Owners must regularly inventory gas-insulated switchgear equipment, measure quantities of SF_6, and maintain records of these for at least 3 years. Additionally, by June 1st each year, owners also must submit an annual report to CARB's Executive Officer for emissions that occurred during the previous calendar year (CARB, 2016b).

Executive Order B-30-15 and SB 32

In April 2015, Governor Brown issued an executive order to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. Reaching this emission reduction target puts California on a trajectory to reach its ultimate goal of reducing emissions 80 percent under 1990 levels by 2050, as identified in Executive Order S-3-05. Executive Order B-30-15 also specifically addresses the need for climate adaptation and directs state government to:

- Incorporate climate change impacts into the state's Five-Year Infrastructure Plan;
- Update the Safeguarding California Plan, the State climate adaption strategy to identify how climate change will affect California infrastructure and industry and what actions the state can take to reduce the risks posed by climate change;
- Factor climate change into state agencies' planning and investment decisions; and
- Implement measures under existing agency and departmental authority to reduce GHG emissions (Office of the Governor, 2015).

Executive Order B-30-15 required CARB to update the AB 32 Climate Change Scoping Plan to incorporate the 2030 target. Subsequently, SB 32, which codifies the Executive Order's 2030 emissions reduction target, was approved by the Governor on September 8, 2016. SB 32 requires CARB to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions to ensure that statewide GHG emissions are reduced to at least 40 percent below the 1990 statewide GHG emissions limit no later than December 31, 2030, the target established by Executive Order B-30-15. CARB adopted the 2017 Scoping Plan to set forth a program to achieve this target (see *California Climate Change Scoping Plan* discussion, above).

Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order (GO) 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." The discussion below presents local regulations for informational purposes only.

County of San Diego General Plan

The County of San Diego General Plan's Conservation and Open Space Element (County of San Diego, 2011) includes the following policies that would otherwise be relevant to the Project.

> ***Policy COS 17.1: Reduction of Solid Waste Materials.*** Reduce greenhouse gas emissions and future landfill capacity needs through reduction, reuse, or recycling of all types of soil waste that is generated. Divert solid waste from landfills in compliance with State law.
>
> ***Policy COS 17.2: Construction and Demolition Waste.*** Require recycling, reduction and reuse of construction and demolition debris.

Local Climate Action Plans

The County of San Diego Climate Action Plan (CAP) contains GHG reduction strategies related to building environment and transportation, energy, solid waste, water and waste water, and agriculture and conservation to reduce GHG emissions through 2050 (San Diego County, 2018). The City of Carlsbad CAP contains goals, policies, and actions to reduce GHG through 2035 (City of Carlsbad, 2015). The City of Vista CAP includes measures to reduce GHG emissions by 15 percent below 2005 levels by 2020, consistent with AB 32 (City of Vista, 2012). The City of San Diego CAP includes measures to reduce GHG emissions by 15 percent below 2010 levels by 2020. The City calculated its 2050 GHG emission reductions at 80 percent below the 2010 baseline and set a 2035 target based upon the trajectory for meeting the City's 2050 reductions (City of San Diego, 2015). The City of Escondido CAP set a goal to reduce emissions back to 1990 levels by the year 2020, which was calculated as a 15 percent decrease from 2005 levels (City of Escondido, 2013). The City of San Marcos CAP establishes a reduction target of 15 percent below 2005 levels by 2020 and a target of 28 percent below 2005 levels by 2030 (City of San Marcos, 2013).

Since the goals and strategies in each of these CAPs are geared towards reducing GHG emissions from City and County operations and development projects seeking discretionary approvals from local jurisdictions, none of the goals and strategies provided in the CAPs are directly applicable to the Project. However, several of the CAPs identify construction and demolition waste diversion as a GHG reduction measure; such diversion is addressed in detail in Section 3.18, *Utilities*.

3.8.3 Applicant Proposed Measures

No Applicant Proposed Measures (APMs) have been identified by SDG&E for the purpose of reducing the impacts of the Project's GHG emissions.

3.8.4 Environmental Impacts

Approach to Analysis

Climate change impacts are global, and therefore inherently cumulative in nature; no typical single project would result in emissions of a magnitude that would be significant on a project basis. As such, the assessment of significance in this analysis is based on a determination of whether the GHG emissions from the Project represent a cumulatively considerable contribution to climate change. The Project would result in GHG emissions from both short-term construction and long-term operations and maintenance activities.

The San Diego Air Pollution Control District (SDAPCD) has not formally adopted a CEQA significance threshold for GHG emissions; however, the County of San Diego recommends the use of a screening threshold of 900 metric tons CO_2e per year (County of San Diego, 2015). The California Air Pollution Control Officers Association has indicated that use of this threshold would result in capture of more than 90 percent of development projects. A 90 percent emissions capture rate means 90 percent of development projects would result in emissions that would exceed the threshold and be subject to analysis in an environmental document prepared pursuant to CEQA, including analysis of feasible alternatives and/or imposition of feasible mitigation measures. It has been determined by the CPUC that Projects with low annual GHG emission rates below the County of San Diego screening threshold of 900 metric tons CO_2e per year would not be expected to interfere with the state's ability to achieve the GHG reduction targets established in Executive Order S-3-05 and B-55-18.

This GHG significance threshold is intended for long-term operational GHG emissions, but for construction related GHGs, the County (County of San Diego, 2015) recommends that total emissions from construction be amortized over 20 years representing the life of the project and added to operational emissions and then compared to the operation-based significance threshold (County of San Diego, 2015). Similar to the County's recommended approach for construction emissions, this analysis amortizes Project construction emissions over a 20-year project lifetime, adds them to the operational emissions, and then compares the combined emissions to the significance threshold of 900 metric tons CO_2e per year.

The Project's potential to conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions is assessed by examining any potential conflicts with the GHG reduction goals set forth in Executive Order S-3-05, Executive Order B-30-15, AB 32, and SB 32, including the potential for the Project to conflict with the recommended actions identified by CARB in its Climate Change Scoping Plan or any associated adopted regulations.

Discussion

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment: *LESS THAN SIGNIFICANT IMPACT.*

Construction

Construction would generate GHG emissions over a period of up to 11 months. Exhaust emissions would result from construction equipment and machinery as well as from construction-related vehicular traffic. With its application for a Permit to Construct, SDG&E provided Project construction-related GHG emissions calculations and estimates. SDG&E's emission calculations were independently reviewed by the CPUC's consultant, Environmental Science Associates (ESA), and were found to be technically adequate. However, subsequent to submitting its application, SDG&E revised its Project to include an AC interference mitigation well system; therefore, ESA revised SDG&E's emissions calculations and estimates accordingly. The California Emissions Estimator Model (CalEEMod) version 2016.3.2 and construction schedule and equipment information presented in Chapter 2 were used to estimate ground-based GHG emissions during Project construction. This version of CalEEMod calculates the construction equipment exhaust emissions based on CARB's OFFROAD2011 model equipment emission and load factors and EMFAC2014 for on-road vehicles. Helicopter pollutant emissions were estimated based on emissions factors identified in USEPA's *Air Pollutant Emissions for Military and Civil Aircraft* (USEPA, 1978). See Appendix C for all emission factors and assumptions used to estimate Project construction GHG emissions.

Table 3.8-2, *Proposed Project Construction GHG Emissions*, presents the total estimated GHG construction emissions that would be associated with the Project generated by off-road construction equipment, on-road vehicles, and helicopter use. Project construction would generate approximately 1,823 metric tons CO_2e.

TABLE 3.8-2
PROPOSED PROJECT CONSTRUCTION GHG EMISSIONS

Construction Year	GHG Emissions (metric tons)			
	CO_2	CH_4	N_20	CO_{2e}
2019				
Construction Emissions	3.8	<0.1	<0.1	3.8
2020				
Construction Emissions	1,798.3	0.5	<0.1	1,811.8
Helicopter Emissions	7.1	<0.1	<0.1	7.2
Total CO_2e	**1,822.8**			

SOURCE: SDG&E, 2017; ESA, 2018; See Appendix C

Operation and Maintenance Emissions

In general, routine operation and maintenance of the Project would be substantially the same as current conditions, but could result in a small number of additional worker vehicle trips during

routine operation and maintenance activities. These additional worker vehicle trips would result in GHG emissions that would be negligible. However, GHG emissions would result from a new SF_6-insulated 69 kV circuit breakers at the San Marcos Substation and Escondido Substation. Annual SF_6 emissions for the Project were estimated based on a leak rate of 1.0 percent of the total SF_6 capacity,[1] and that the two new circuit breakers would be installed that would have a combined SF_6 capacity of 0.66 pounds. The estimated annual SF_6 emissions would be 7.2 metric tons CO_2e per year.

Total Amortized Annual Emissions

As indicated in Table 3.8-2, total GHG construction emissions would be approximately 1,823 metric tons CO_2e. These emissions amortized over a 20-year period equal approximately 91.2 metric tons per year. As presented in **Table 3.8-3**, *Proposed Project Amortized Annual Emissions*, adding 91.2 metric tons of CO_2e to the operational emissions of 7.2 metric tons CO_2e per year equals a total Project GHG emissions rate of approximately 98.4 metric tons CO_2e per year, which would be substantially less than the significance threshold of 900 metric tons CO_2e per year. Therefore, the Project would not generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment. Impacts would be less than significant.

TABLE 3.8-3
PROJECT AMORTIZED ANNUAL EMISSIONS

Emissions Source	CO_2e metric tons/year
Construction emissions: total amortized (20 year period)	91.2
SF_6 Circuit Breaker Emissions	7.2
Total	**98.4**
Significance threshold	900
Significant impact?	No

SOURCE: SDG&E, 2017, 2018; see Appendix C for all emissions estimates.

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases: *NO IMPACT.*

Construction, operation, and maintenance of the Project would result in increased GHG emissions compared to baseline conditions; however, the emissions would not exceed regional or quantitative thresholds developed to comply with AB 32 and the Climate Change Scoping Plan. As discussed in *Approach to Analysis* above, CPUC has determined that Projects with low annual GHG emission rates below the County of San Diego screening threshold of 900 metric tons CO_2e per year would not be expected to interfere with the state's ability achieve the GHG reduction targets established in Executive Order S-3-05 and B-55-18. Since Project amortized GHG emissions would well below the significance threshold (see Table 3.8-3, above), it would not conflict with GHG reduction goals set forth in Executive Order S-3-05, Executive Order B-55-18, Executive

[1] A leak rate of 1.0 percent is considered to be a conservative assumption because the leakage rate for current SF_6-containing circuit breaker designs is under 0.5 percent per year (Siemens, 2017).

Order B-30-15/SB 32, or AB 32, including the proposed programs identified by CARB in its AB 32 and SB 32 Climate Change Scoping Plans.

Regarding management of Project-related SF_6, SDG&E currently implements internal standards and programs for the operation and maintenance of its SF_6-containing equipment (SDG&E, 2018). These include the following:

- Recording company-wide SF_6 purchases for use in reporting annual GHG emissions under the CEC's California Climate Action Registry Power Utilities Protocol and as a member of the USEPA SF_6 Partnership.
- Reporting GHG emissions with the Climate Registry.
- Implementing an SF_6 recycling program.
- Training employees on the safety and proper handling of SF_6.
- Implementing SDG&E's SF_6 leak detection and repair program. This program includes monthly visual inspections of each generator circuit breaker, which includes checking pressure levels within the breaker and recording these readings in SDG&E's Substation Management System.

Inventories of Project SF_6-containing equipment and implementation of the above standards and programs would be documented and annually reported to USEPA and CARB. Because implementation of SDG&E's internal SF_6 standards and programs would minimize leaks of SF_6, the Project would be consistent with the intent of AB32 Scoping Plan Measure H-6: High Global Warming Potential Gas Reductions from Stationary Sources, and CARB's associated legislation. Because the Project would be consistent (and would not conflict) with these plans, policies, and regulations, it would cause no impact related to this significance criterion.

3.8.5 References

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3.9 Hazards and Hazardous Materials

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
9.	**HAZARDS AND HAZARDOUS MATERIALS — Would the project:**				
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	☐	☒	☐	☐
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☒	☐	☐
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☒	☐
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☒	☐	☐

For the purposes of this analysis, the study area for the evaluation of hazardous materials is defined as an area comprised of all components of the Project as well as areas that would be subject to temporary and/or permanent ground disturbance as a result of the Project or used for the transportation of materials, equipment, and workers.

3.9.1 Environmental Setting

Materials and waste may be considered hazardous if they are poisonous (toxic), can be ignited by open flame (ignitable), corrode other materials (corrosive), or react violently, explode, or generate vapors when mixed with water (reactive). The term “hazardous material” is defined in California Health and Safety Code Section 25501(n)(1) as any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment.

In some cases, past industrial or commercial uses on a site can result in spills or leaks of hazardous materials and/or petroleum products to the environment, thus resulting in soil and groundwater contamination. Federal and state laws require that soils having concentrations of contaminants such

as lead, gasoline, or industrial solvents that are higher than certain regulatory standards must be handled and disposed of as hazardous waste during excavation, transportation, and disposal. The California Code of Regulations, Title 22, Section 66261.20-24 contains technical descriptions of characteristics that would cause soil to be classified as a hazardous waste.

The use of hazardous materials and disposal of hazardous wastes are subject to numerous laws and regulations at all levels of government. See Section 3.9.2, *Regulatory Setting*.

Hazardous Materials Database Records Search

To evaluate the potential presence of hazardous materials in soil and groundwater, regulatory databases were searched for sites within 0.25 mile of the Project to identify the documented use, storage, generation, and/or releases of hazardous materials and/or petroleum products. In addition, active contaminated sites that are currently undergoing monitoring and remediation were identified.

Based on a review of the Department of Toxic Substances Control (DTSC) EnviroStor and the State Water Resources Control Board (SWRCB) GeoTracker hazardous materials databases, there are four sites within 0.25 mile of the Project right-of-way that indicate a past or present hazardous materials release or contamination, as discussed below.

- **CRM Automotive Repair** – This site is located at 821 Rancho Santa Fe Road in San Marcos, approximately 150 feet south of the Segment 1 alignment on West San Marcos Boulevard (SWRCB, 2017). This site is listed as an open Leaking Underground Storage Tank (LUST) Cleanup Site. A leaking waste oil tank was removed from the site in 1992 and floating fuel and/or oil was observed on groundwater in the excavation. Site investigation has not been completed and the extent of soil and/or groundwater contamination is unknown.
- **1601 San Elijo Road Project** – This site is located at 1601 San Elijo Road in San Marcos, approximately 850 feet south of the western terminus of Segment 3 alignment and less than 300 feet from staging areas on San Elijo Road. This site is under investigation for vapor intrusion, reportedly due to its location next to the former San Marcos Landfill, discussed below (County of San Diego DEH, 2017).
- **San Marcos Landfill** – This closed landfill is located adjacent and east to the above-listed 1601 San Elijo Road site in San Marcos, approximately 850 feet south of the western terminus of Segment 3 alignment and adjacent and east of the staging areas on San Elijo Road (Geosyntec, 2018). Groundwater beneath this closed landfill contains volatile organic compounds (VOCs), which is migrating west to beneath the above-listed 1601 San Elijo Road Project site.
- **East County Sand Mine** – This site is located at 12101 Highway 67 in Lakeside, approximately 1,160 feet southwest of the staging yard at 12332 Vigilante Road. The site is an active Cleanup Program site for petroleum hydrocarbons in soil (Leighton, 2017).

Alternating Current (AC) Effects on Underground Gas Pipelines

Alternating current (AC) electrical interference effects from the existing power lines on existing underground natural gas pipelines along the Project alignment were investigated for worker safety (e.g., electrical shock) and pipeline hazards (e.g., corrosion) (ARK, 2017). The following natural gas lines were considered:

- SDG&E L-1604 16-inch pipeline
- SDG&E L-49-111 4-inch pipeline
- SDG&E L-49-111 3-inch pipeline
- SDG&E L-49-106 8-inch pipeline
- SDG&E L-49-369 4-inch pipeline

The investigation concluded that the pipelines are subject to AC electrical interference effects from the existing power lines that parallel and cross the pipeline segments. Given that the Project power lines would be on the same alignment; it is presumed that they would have similar effects on the existing pipelines. The results of the investigation concluded that the presence of the power lines does induce a current to the pipelines and exceeds acceptable design limits.

Unexploded Ordnance

Unexploded ordnance (UXO) are explosives (e.g., bombs, shells, grenades, land mines, naval mines) that did not detonate when they were deployed, but still pose a risk of detonation potentially many decades after they were used or discarded (SDG&E, 2017). Given the history of military presence in San Diego County, UXO can be a concern particularly in seldom-accessed areas, such as rugged terrain. The Project alignment is not located on or adjacent to any known UXO sites.

Schools and Day Care Centers

Schools and day care centers are considered sensitive receptors that are more at risk from potential adverse effects associated with accidental release of hazardous materials because children are more susceptible than adults to these effects. Schools that are located within 0.25 mile of the Project alignment are listed in **Table 3.9-1**.

TABLE 3.9-1
SCHOOLS WITHIN 0.25 MILE OF THE PROJECT SITE

School	Segment	Figure number Appendix A	Address
High Tech High North County	1	A-2	1420 W San Marcos Blvd, San Marcos, CA 92078
San Marcos High School	1	A-3	1615 W San Marcos Blvd, San Marcos, CA 92078
Mountain Peak Charter School	1	A-5 & A-6	3220 Executive Ridge, #160, Vista, CA 92081
Valley Christian School	1	A-2	1350 Discovery Street, San Marcos, CA 92078
San Elijo Middle School	3	A-22	1600 Schoolhouse Way, San Marcos, CA 92078
Rock Springs Elementary School	Staging Area	A-45	1155 Deodar Road, Escondido, CA 92026

Airports

The closest public airports include the McClellan-Palomar Airport, which is 1.6 miles away from the staging yards on Eagle Drive in Carlsbad, and the Montgomery-Gibbs Executive Airport, which is approximately 2 miles away from the 5488 Overland Avenue staging yard.

3.9.2 Regulatory Setting

Federal

Hazardous Materials Management

The primary federal agencies with responsibility for hazardous materials management include the U.S. Environmental Protection Agency (USEPA), U.S. Department of Labor Occupational Safety and Health Administration (OSHA), and the U.S. Department of Transportation (DOT). With respect to hazardous materials, state and local agencies often have either parallel or more stringent regulations than federal agencies. In most cases, state law mirrors or overlaps federal law and enforcement of these laws is the responsibility of the state or of a local agency to which enforcement powers are delegated. For these reasons, the requirements of the law and its enforcement are discussed under either the state or local agency section.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act of 1976 (RCRA) is the principal law governing the management and disposal of hazardous wastes. RCRA regulates the generation, transportation, treatment, storage, and disposal of hazardous waste, referred to as from "cradle to grave." Under RCRA, individual states may implement their own hazardous waste programs in lieu of RCRA as long as the state program is at least as stringent as federal RCRA requirements and is approved by the USEPA. The USEPA approved California's RCRA program, referred to as the Hazardous Waste Control Law in 1992.

Hazardous and Solid Waste Act

The Hazardous and Solid Waste Act (HSWA) amended RCRA in 1984, affirming and extending the "cradle to grave" system of regulating hazardous wastes. The amendments specifically prohibit the use of certain techniques for the disposal of some hazardous wastes.

Emergency Planning and Community Right-to-Know Act

The Emergency Planning and Community Right-to-Know Act (EPCRA) from the Superfund Amendments and Reauthorization Act (SARA) Title III improved community access to information regarding chemical hazards and facilitated the development of business chemical inventories and emergency response plans. EPCRA also established reporting obligations for facilities that store or manage specified chemicals. EPCRA applies to this program because the contractors that conduct cleanup, remove hazardous materials from the project site, and construct remediation systems will be required to prepare and implement written emergency response plans to properly manage hazardous materials and respond to accidental spills.

Hazardous Materials Transportation Act

The Hazardous Materials Transportation Act of 1975 (49 USC §§ 5101-5127) empowered the Secretary of Transportation to designate as hazardous materials that may pose an unreasonable risk to health and safety or property. The U.S. Department of Transportation (USDOT), in conjunction with the USEPA, is responsible for enforcement and implementation of federal laws

and regulations pertaining to safe storage and transportation of hazardous materials. USDOT Regulations implementing the Act at Title 49, Parts 171–180 of the Code of Federal Regulations regulate the transportation of hazardous materials, types of material defined as hazardous, and the marking of vehicles transporting hazardous materials. This Act applies to this program because contractors would be required to comply with its storage and transportation requirements that would reduce the possibility of spills. Federal and state agencies determine driver-training requirements, load labeling procedures, and container specifications. Although special requirements apply to transporting hazardous materials, requirements for transporting hazardous waste are more stringent, and hazardous waste haulers must be licensed to transport hazardous waste on public roads.

Occupational Safety

The Occupational Safety and Health Administration (OSHA) is the agency responsible for assuring worker safety in the handling and use of chemicals in the workplace. The federal regulations pertaining to worker safety are contained in Title 29 of the Code of Federal Regulations, as authorized in the Occupational Safety and Health Act of 1970. They provide standards for safe workplaces and work practices, including standards relating to hazardous materials handling. At sites known or suspected to have soil or groundwater contamination, construction workers must receive training in hazardous materials operations and a site health and safety plan must be prepared. The health and safety plan establishes policies and procedures to protect workers and the public from exposure to potential hazards at the contaminated site.

Clean Water Act

The purpose of the Clean Water Act (CWA; 33 USC § 1251 et seq.), described in greater detail in Section 3.10, Hydrology and Water Quality, in Section 3.10.2, Regulatory Setting, is to protect and maintain the quality and integrity of the nation's waters by requiring states to develop and implement state water plans and policies.

Oil Pollution Prevention

Under the authority of CWA Section 311, the Oil Pollution Prevention regulation in Title 40, Part 112 of the Code of Federal Regulations (40 CFR 112) establishes procedures, methods, equipment, and other requirements to prevent discharges from non-transportation-related onshore and offshore facilities into the waters of the United States. These regulations require facilities with a single tank or cumulative aboveground storage capacities of 1,320 gallons or greater of petroleum to prepare and implement a Spill Prevention, Control, and Countermeasure (SPCC) Plan (40 CFR § 112.1). The purpose of an SPCC Plan is to form a comprehensive federal/state spill prevention program that minimizes the potential for discharges. The SPCC Plan must address all relevant spill prevention, control, and countermeasures necessary at the specific facility for which the SPCC Plan is written.

Federal Aviation Regulations 14 CFR Part 77

The Federal Aviation Administration (FAA) is the federal agency that identifies potential impacts related to air traffic and related safety hazards. The FAA's Federal Aviation Regulation (FAR) at 14 CFR Part 77 establishes standards and notification requirements for objects affecting

navigable airspace. This notification serves as the basis for evaluating the effect of the proposed construction or alteration on operating procedures; determining the potential hazardous effect of the proposed construction on air navigation; identifying mitigating measures to enhance safe air navigation; and charting of new objects. Part 77 includes the establishment of imaginary surfaces (airspace that provides clearance of obstacles for runway operation) that allows the FAA to identify potential aeronautical hazards in advance, thus preventing or minimizing adverse impacts to the safe and efficient use of navigable airspace. The regulations identify three-dimensional imaginary surfaces through which no object should penetrate.

State

California Code of Regulations

The California Code of Regulations (CCR), Title 22, Sections 66261.20-24, contains technical descriptions of characteristics that would classify wasted material, including soil, as hazardous waste. Excavated soils with concentrations of contaminants higher than certain regulatory standards must be handled and disposed as a hazardous waste.

CCR Title 22, Section 67386 et seq. includes the Alternative Management Standards regulations for Treated Wood Waste, which became effective on July 1, 2007. The regulations include storage, accumulation, shipment, and disposal requirements that are specific to the handling, transportation, and disposal of treated wood waste.

Department of Toxic Substances Control

The Department of Toxic Substances Control (DTSC) is responsible for regulating the use, storage, transport, and disposal of hazardous substances in the state. The hazardous waste regulations establish criteria for identifying, packaging, and labeling hazardous wastes; prescribe management of hazardous waste; establish permit requirements for hazardous waste treatment, storage, disposal, and transportation; and identify hazardous waste that cannot be disposed of in landfills. DTSC also maintains a Hazardous Waste and Substances Site List for site cleanup. This list is commonly referred to as the Cortese List. Government Code Section 65962.5 requires the California Environmental Protection Agency (CalEPA) to update the Cortese List at least annually. DTSC is responsible for a portion of the information contained in the Cortese List. Other state and local government agencies are required to provide additional hazardous material release information for the Cortese List.

State Water Resources Control Board

The State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) administer the requirements of the Clean Water Act that regulate pollutant discharges into waterways of the U.S. The Project is proposed within the jurisdiction of the San Diego RWQCB.

Construction of the Project would disturb more than one acre of land surface affecting the quality of stormwater discharges into waters of the U.S. The Project would therefore be subject to the *NPDES General Permit for Stormwater Discharges Associated with Construction and Land*

Disturbance Activities (Order 2009-0009-DWQ, NPDES No. CAS000002; as amended by Orders 2010-0014-DWQ and 2012-006-DWQ). The Construction General Permit regulates discharges of pollutants in stormwater associated with construction activity to waters of the U.S. from construction sites that disturb one or more acres of land surface, or that are part of a common plan of development or sale that disturbs more than one acre of land surface. The permit regulates stormwater discharges associated with construction or demolition activities, such as clearing and excavation; construction of buildings; and linear underground projects, including installation of water pipelines and other utility lines. For additional details of the NPDES Construction General Permit see Section 3.10, *Hydrology and Water Quality*.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

In January 1996, CalEPA adopted regulations implementing a Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program). The program has six elements: hazardous waste generators and hazardous waste on-site treatment; underground storage tanks; aboveground storage tanks; hazardous materials release response plans and inventories; risk management and prevention programs; and Unified Fire Code hazardous materials management plans and inventories. The plan is implemented at the local level. The Certified Unified Program Agency (CUPA) is the local agency that is responsible for the implementation of the Unified Program. The County of San Diego Hazardous Materials Division is the certified local CUPA for the Project.

Hazardous Materials Release Response Plans and Inventory Law

The California Hazardous Materials Release Response Plan and Inventory Law of 1985 (Business Plan Act) requires businesses that store or use hazardous materials to prepare a Hazardous Materials Business Plan (HMBP) and submit it to the local CUPA, discussed above. The HMBP must include details of the facility and business conducted at the site, an inventory of hazardous materials that are handled and stored on-site, an emergency response plan, and a safety and emergency response training program for new employees with an annual refresher course.

Aboveground Storage of Petroleum Products

The Aboveground Petroleum Storage Act of 1990 requires owners or operators of facilities that store petroleum products with a capacity of 1,320 gallons or more to file a storage statement with the SWRCB and prepare a SPCC plan. The plan must identify appropriate spill containment or equipment for diverting spills from sensitive areas, as well as discuss facility-specific requirements for the storage system, inspections, recordkeeping, security, and personnel training.

The SWRCB requires registration of an aboveground storage tank at a construction site only if the tank is 20,000 gallons or larger, or if the aggregate volume of aboveground petroleum storage is over 100,000 gallons, which would not be applicable to the Project. For smaller temporary tanks used during construction, methods for controlling a release and measures to clean up an accidental release and prevent degradation of water quality are addressed in the construction stormwater pollution prevention plan (SWPPP) that would be prepared for the Project, as described in Section 3.10, *Hydrology and Water Quality*.

Underground Storage Tanks

State laws governing underground storage tanks (USTs) specify requirements for permitting, monitoring, closure, and cleanup associated with these facilities. Regulations set forth construction and monitoring standards for existing tanks, release reporting requirements, and closure requirements. In the study area, the County of San Diego Hazardous Materials Division has regulatory authority for permitting, inspection, and removal of USTs. Any entity proposing to remove a UST must submit a closure plan to the regulating agency prior to tank removal. Upon approval of the UST closure plan, the regulating agency would issue a permit, oversee removal of the UST, require additional subsurface sampling if necessary, and issue a site closure letter when the appropriate removal and/or remediation has been completed.

Hazardous Materials Transportation

In addition to the USDOT regulations, the State regulates the transportation of hazardous waste originating in the State and passing through the State. Both regulatory programs apply in California.

The two state agencies with primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies are CHP and Caltrans. The CHP enforces hazardous materials and hazardous waste labeling and packing regulations to prevent leakage and spills of material in transit and to provide detailed information to cleanup crews in the event of an accident. Vehicle and equipment inspection, shipment preparation, container identification, and shipping documentation are the responsibility of the CHP, which conducts regular inspections of licensed transporters to assure regulatory compliance. Caltrans has emergency chemical spill identification teams at as many as 72 locations throughout the state that can respond quickly in the event of a spill.

Occupational Safety

The California Department of Industrial Relations Division of Occupational Safety and Health (Cal/OSHA) assumes primary responsibility for developing and enforcing workplace safety regulations in California. Because California has a federally approved OSHA program, it is required to adopt regulations that are at least as stringent as those found in Title 29 of the CFR.

Cal/OSHA regulations concerning the use of hazardous materials in the workplace require employee safety training, safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation. Cal/OSHA enforces hazard communication program regulations, which contain training and information requirements, including procedures for identifying and labeling hazardous substances, and communicating hazard information relating to hazardous substances and their handling. The hazard communication program also requires that Material Safety Data Sheets (MSDSs) be available to employees, and that employee information and training programs be documented. These regulations also require preparation of emergency action plans (escape and evacuation procedures, rescue and medical duties, alarm systems, and training in emergency evacuation).

Emergency Response

Pursuant to the Emergency Services Act (Government Code §8550 et seq.), California has developed an Emergency Plan to coordinate emergency services provided by federal, state, and local governmental agencies and private persons. Response to hazardous materials incidents is one part of this plan. The plan is administered by the State Office of Emergency Services (OES). The OES coordinates the responses of other agencies, including the USEPA, CHP, California Department of Fish and Wildlife (CDFW), the RWQCBs (in this case, the San Diego RWQCB), the local air districts (in this case, the San Diego Air Pollution Control District) and local agencies. The State Emergency Plan defines the "policies, concepts, and general protocols" for the proper implementation of the California Standardized Emergency Management System (SEMS). The SEMS is an emergency management protocol that agencies within the State of California must follow during multi-agency response efforts whenever state agencies are involved.

California Public Utilities Code

California Public Utilities Code Section 21658 prohibits structural hazards associated with utility poles and lines near airports. Should a power line be located in the vicinity of an airport or exceed 200 feet in height, a Notice of Proposed Construction or Alteration (Form 7460-1) is required by the FAA in accordance with Federal Aviation Regulation, Part 77 "Objects Affecting Navigable Airspace."

Local

McClellan-Palomar Airport Land Use Compatibility Plan

The San Diego County Regional Airport Authority, acting in its capacity as the San Diego County Airport Land Use Commission (ALUC) in accordance with section 21670.3 of the California Public Utilities Code, has published the McClellan-Palomar Airport Land Use Compatibility Plan to fulfill its purpose of promoting airport land use compatibility (San Diego County ALUC, 2010). Under this plan, the Airport Influence Area is the area where airport-related noise, safety, airspace protection, and overflight factors may significantly affect land use compatibility or necessitate restrictions on certain land uses as determined by the ALUC. Land use actions that affect property within the Airport Influence Area are subject to the compatibility policies and criteria in this Compatibility Plan.

Emergency Response

The San Diego County OES coordinates the County-wide response effort in the event of a disaster situation and also implements the Multi-Jurisdictional Hazard Mitigation Plan (MJHMP). The MJHMP identifies hazards that could potentially affect any or all portions of the County as well as measures for the prevention and minimization of such hazards. San Diego County OES is responsible for notifying appropriate agencies in the event of a disaster, as well as coordinating all responding agencies. The City of San Diego Fire-Rescue Department oversees emergency management within the City. It also participates in disaster preparedness through the San Diego County MJHMP. Mutual aid, response, and emergency management are available from state government agencies where appropriate or by direct request of the local agency.

The Operational Area Emergency Operations Plan is one of the County documents that was reviewed during the planning process for the MJHMP. The Emergency Operations Plan includes specific information regarding evacuation routes and procedures, and the agencies that are in charge of coordinating these emergency situations (OES, 2018). The Emergency Operations Plan indicates that in the event of an evacuation, ground transportation routes will be the primary means of evacuation and major evacuation routes will be major ground transportation corridors.

3.9.3 Applicant Proposed Measures

SDG&E proposes to implement the following Applicant Proposed Measures (APMs) for hazards and hazardous materials as part of the project.

APM HAZ-1: A Health and Safety Plan will be prepared and implemented during construction. The Health and Safety Plan will describe the anticipated hazards that construction workers may encounter while working on the Project, the safety measures that must be taken to address those hazards, and the necessary training requirements for personnel working on the Project. Safety hazards and applicable federal and state occupational standards will be identified in conjunction with the development of appropriate response actions, as well as a protocol for accident reporting. The Health and Safety Plan will also identify security and safety requirements for staging areas, storage yards, excavation areas, and any other areas of the Project where hazards may exist during construction activities. In addition, information regarding medical kits, safety equipment, and evacuation procedures will be outlined in the Health and Safety Plan. A qualified safety field representative will be present on site to observe and document adherence to the Health and Safety Plan as needed. The Health and Safety Plan will be prepared by the SDG&E construction contractor and will be available immediately prior to construction.

APM TRA-1: If construction requires lane closures, traffic delays, or other encroachment of construction activities within public travelways, the Applicant will adhere to local traffic control regulations and establish a traffic control plan as needed to comply with local ordinances. Traffic control plans will describe signage, flaggers, or other controls to be used to regulate traffic where necessary and to maintain a safe transportation corridor during construction.

APM TRA-2: The Applicant will coordinate with local emergency response agencies during construction within existing public roadways to allow safe passage and access by emergency vehicles and equipment.

3.9.4 Environmental Impacts

Discussion

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials: *LESS THAN SIGNIFICANT IMPACT*.

Construction

Construction would require the use of limited quantities of common hazardous substances, such as gasoline and diesel fuel, oils and lubricants, hydraulic fluid, and solvents to maintain vehicles and motorized equipment; and cartridges containing primer for ignition and nitrocellulose propellant for

gas production in the unlikely event that blasting is necessary (see Chapter 2, *Project Description*, for details). An accidental spill of any of these substances could occur during handling and transfer from one container to another and could impact localized air, soil, water, and/or groundwater quality. Depending on the relative hazard of the material, an accidental spill could pose a hazard to people or the environment and would be considered potentially significant. Blasting agents, if needed, also could present a hazard of injury, mortality, or property damage if improperly handled.

The use of hazardous materials and substances during construction would be subject to the federal, state, and local health and safety requirements for the handling, storage, transportation, and disposal of hazardous materials, as summarized above in Section 3.9.2, *Regulatory Setting*. Implementation of a construction SWPPP in compliance with the state Construction General Permit would reduce the chance of a spill/accidental release and would have provisions to contain spills to avoid contamination of water bodies and groundwater. For further information regarding the construction SWPPP, refer to Section 3.10, *Hydrology and Water Quality*. Construction contractors would be required to prepare and implement a HMBP describing procedures for transporting, storing, and using hazardous materials in a safe and legal manner. The HMBP would include typical best management practices (BMPs), including spill response procedures such as use of absorbent pads for spill containment and specified locations for vehicle refueling, as proscribed in SDG&E's *BMP Manual for Water Quality Construction* (SDG&E, 2011). In addition, as noted in Section 3.9.3, *Applicant Proposed Measures*, the applicant would require all contractors to comply with **APM HAZ-1**, which would require the development and implementation of a Health and Safety Plan. Compliance with applicable federal, state, and local regulations, the State Construction General Permit and its required SWPPP, applicable BMPs, and APM HAZ-1 would further ensure that the Project's potential construction-phase impact would be less than significant.

The Project would replace numerous wood poles with steel poles. The wood poles to be removed in Segment 1 have been treated with chemicals that likely include pentachlorophenol, creosote, or chromated copper arsenate. These treatment chemicals are used in pressure treated wood to protect wood from rotting due to insects and microbial agents. Additionally, the base of some of the treated wood poles may be wrapped with copper naphthenate paper. This paper has been accepted as a wood preservative for several decades and is typically used in non-pressure treatments of wood and other products. These chemicals, for certain uses and quantities, can be considered hazardous materials, and as a result, disposal of wood poles would require specific handling procedures prescribed by state and federal regulations (DTSC, 2011). In compliance with state and federal regulations, all non-reusable treated wood would be disposed of in a composite-lined portion of a municipal solid waste landfill approved by the San Diego RWQCB and, therefore, impacts related to Project construction would be less than significant.

Within the existing Escondido Substation, a concrete oil containment wall and a concrete circuit breaker pad would be removed. The existing oil circuit breaker would be replaced with a gas (sulfur hexafluoride or SF_6) circuit breaker, which does not require a containment wall. The existing circuit breaker at the Escondido Substation contains mineral oil, which would not be classified as hazardous. Mineral oil (other commonly used names are paraffin oil and/or white mineral oil mist) does not appear on the list of hazardous substances provided by Cal/OSHA (Cal/OSHA, 2018), and therefore the removal of the oil circuit breaker facilities would not result

in any significant hazardous materials-related impact. Nonetheless, this Project construction activity would be subject to the State Construction General Permit and its required SWPPP, which outlines BMPs to avoid runoff of stormwater and pollutants.

Air quality issues from diesel particulate matter are analyzed in Section 3.3, *Air Quality*, and are not discussed in this section.

Operations – Hazardous Materials

Project operation and maintenance may require the limited use of certain materials such as fuels, oils, solvents, and other chemical products that could pose a potential hazard to the public or the environment during routine transport, use, or disposal. SDG&E currently maintains and operates existing electric transmission, power, distribution and substation facilities throughout the study area. Operation and maintenance activities for the Project would therefore be substantially similar to current conditions.

During operation and maintenance, vehicles and equipment used for routine inspections and emergency repair would require the use of fuel and lubricants. Routine maintenance activities would include washing or replacing insulators, repairing or replacing other hardware components, tree trimming, and brush and weed control. Furthermore, as described in Section 2.6.4, *Application of Herbicides*, an application of herbicides may follow the mechanical trimming of vegetation to prevent vegetation from recurring. This activity would generally involve one person in a pickup truck spraying around the base of the pole structure with a radius of up to 10 feet. The employee would either walk from the nearest access road to apply the herbicide or drive a pickup truck directly to each pole structure location, as access permits. This would occur annually during the "wet season" (i.e., fall through spring), prior to the last rains of the season. SDG&E practices application according to its annual "Pest Control Recommendation," which includes guidance on quantity, pesticide mix, hazards, restrictions, etc. While the Project would not require long-term operational use, storage, treatment, disposal, or transport of significant quantities of hazardous materials, such materials would be used during maintenance activities.

Hazardous materials needed for maintenance activities would be stored and used in accordance with the product specifications and applicable regulations. Product specifications are described in detail on Safety Data Sheets (SDS), which accompany every batch of materials considered to be hazardous. Information in the SDS includes instructions on proper use and application of the material, accidental release measures, and handling and storage requirements. Hazard communication programs regulations enforced by Cal/OSHA requires SDS be available to employees, and that employee information and training programs be documented. Applicable regulations specify storage and handling requirements such as proper container types and usage methods. Compliance with the measures prescribed in these regulations would ensure that potential impacts associated with hazardous product use would be adequately mitigated. Applicable regulations under Caltrans and the CHP described in Section 3.9.2, *Regulatory Setting*, regulate the transportation of hazardous materials and wastes, including container types and packaging requirements, as well as licensing and training for truck operators, chemical handlers, and hazardous waste haulers. All transport of hazardous materials for the Project would be in undertaken compliance with applicable laws, rules,

and regulations, including the acquisition of required shipping papers, package marking, labeling, transport vehicle placarding, training, and registrations.

Compliance with applicable federal, state, and local regulations and the applicable BMPs and SPCC plan would ensure that the impact would be less than significant during Project operation and maintenance.

Operations – Pipeline Conflicts

As discussed in Section 3.9.1, induced AC interference effects from the existing power lines on the existing underground natural gas pipelines along the Project alignment were investigated for worker safety and pipeline damage. The proximity of the power lines to the natural gas pipelines could create hazards, including subjecting personnel to electric shock up to a lethal level, accelerated corrosion, arcing through pipeline coating, arcing across insulators, disbondment or degradation of coating, or possibly perforation of the pipeline.

To maintain the induced AC interference effects within acceptable design limits, the Project includes an AC interference mitigation system, described in detail in Section 2.4.3. This system would include 11 deep wells, solid state decouplers, and three coupon test stations. See Figure 2-10 in the *Project Description* for more information on the location of the deep wells and coupon test stations. Each well would contain a copper grounding rod connected to a copper wire, in turn connecting the well to a solid state decoupler, and then backfilled with conductive concrete. The solid state decouplers and the coupon test stations would be locked and secured from the public. The Project AC interference mitigation system would reduce the current to the pipelines located within the Project to acceptable design limits, and increase worker safety. Therefore, implementation of the AC interference mitigation system component of the Project would ensure that potential pipeline conflict impacts would remain less than significant.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment: *LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED*.

Construction

Accidents or mechanical failure involving heavy equipment could result in the accidental release of small quantities of fuel, lubricants, hydraulic fluid, or other hazardous substances. These types of spills on construction sites are typically in small quantities, localized, and are cleaned up in a timely manner. Construction contractors are contractually responsible for their hazardous materials and are required under their contract to properly store and dispose of these materials in compliance with state and federal laws, including implementing a HMBP with procedures for transporting, storing, and using hazardous materials in a safe and legal manner. As discussed in Section 3.10, *Hydrology and Water Quality*, the Project would require coverage under the State Construction General Permit and its required SWPPP, which outlines BMPs to avoid runoff of stormwater and pollutants. The BMPs would include protection measures to contain a potential release and to prevent any such release from reaching an adjacent waterway or stormwater collection system. These would minimize the potential adverse effects to groundwater and soils.

Project construction activities would involve excavating, trenching, and grading, as well as the use of hazardous materials such as gasoline, diesel fuel, oils, lubricants, solvents, and glues. Although implementation of the Health and Safety Plan in APM HAZ-1 would reduce the risk of accidental release of or exposure to hazardous materials, if hazardous materials were present in excavated soil or are inadvertently released into the environment, this could expose people to contaminated soil and groundwater and chemical vapors during construction. Depending on the nature and extent of any contamination encountered, adverse health effects could result.

Data obtained from the DTSC's EnviroStor and SWRCB's GeoTracker databases indicate four hazardous materials sites within 0.25 mile of the Project alignment. The sites include one LUST Cleanup Site, two Cleanup Program Sites, and one closed landfill. The CRM Automotive Repair Site is identified as having a drinking water aquifer potentially contaminated with gasoline and wastes from oil, motor, hydraulic, and lubricating activities. The 1601 San Elijo Road site requires additional assessment to evaluate the potential vapor intrusion exposure to groundwater, reportedly originating from the adjacent closed landfill under ongoing monitoring. The East County Sand Mine is currently undergoing remediation. The footprint of contamination from these four site may extend to the Project alignment. Therefore, during construction, there is the potential to encounter previously known and unknown contaminated soil, and, if dewatering is needed, groundwater. Construction workers, the public, and the environment could be exposed to hazardous materials and the impact could be significant. The impact would be reduced to less than significant with the implementation of **Mitigation Measure HAZ-1**, described below.

> **Mitigation Measure HAZ-1: Soil and Dewatering Management Plan.** SDG&E and the contractor conducting soil excavation and (if needed) dewatering shall develop and implement a Soil and Dewatering Management Plan (SDMP) that describes the procedures for managing excavated soil and groundwater generated from dewatering activities. The SDMP shall include procedures for monitoring soil for possible contamination, identifying the specific stockpiling locations and measures to contain the stockpiled soil to prevent run on and run off, and materials disposal specifying how the construction contractor(s) will remove, handle, transport, and dispose of all excavated materials in a safe, appropriate, and lawful manner. The SDMP shall specify the contractor will segregate and dispose of soil with chemical concentrations above regulatory standards. Soil with chemical concentrations below regulatory standards may be reused or recycled. Soil with chemical concentrations above regulatory standards shall be disposed of in accordance with the applicable provisions of Cal. Code Regs. Title 22, Chapter 11, Article 3, Section 66261 (i.e., Class III (non-hazardous waste), Class II (non-hazardous and "designated" waste), or Class I (non-hazardous and hazardous waste)). The SDMP must identify protocols for soil testing and disposal, identify the approved disposal sites, and include written documentation that the disposal site can accept the waste. The contractor shall include procedures for the safe and legal disposal of groundwater generated from dewatering, if any. The procedures shall include water sampling and testing procedures to quantify chemical concentrations in the water, and dispose of the water in a safe and legal manner. Note that the disposal of groundwater generated from dewatering may be disposed of under the state's VOC and Fuel General Permit, depending on chemical concentrations and local sanitary sewer acceptance criteria. Contract specifications shall mandate full compliance with all applicable local, State, and federal regulations related to the identification, transportation, and disposal of hazardous materials, including those encountered in soil and

groundwater. This SDMP shall be submitted to CPUC for review and approval prior to commencement of construction.

Significance after Mitigation: Mitigation Measure HAZ-1 would ensure that soil and water are monitored and that soil and/or water with chemical concentrations that exceed regulatory standards would be properly tested, contained, and disposed of in a safe and legal manner. This would reduce the potential for adverse effects on construction workers, the public, and the environment. With compliance with existing federal, state, and local regulations, and the implementation of this mitigation measure, impacts would be reduced to a less-than-significant level.

Operations

As described under Question a, operation and maintenance activities for the Project would be substantially similar to current conditions. Compliance with applicable federal, state, and local regulations and the applicable BMPs and SPCC plan would ensure that the impact would be less than significant during Project operation and maintenance.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school: *LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.*

Construction

As shown in Table 3.9-1, six schools are located within 0.25 mile of the Project. No new schools are currently proposed in this area. Project construction would require the short-term use of various hazardous materials. Impacts from the routine use of hazardous materials are analyzed above in Question a and from accidental spills in Question b. As noted under Question b, compliance with existing federal, state, and local regulations and implementation of APM HAZ-1 would reduce the risk of emitting hazardous emissions or wastes, but impacts may remain significant. Thus, **Mitigation Measure HAZ-1** has been incorporated to reduce this impact to a less-than-significant level.

Mitigation Measure HAZ-1: Soil and Dewatering Management Plan. See full text for this Mitigation Measure under Question b, above.

Significance after Mitigation: Mitigation Measure HAZ-1 would ensure that encountered potentially contaminated soil and groundwater are monitored and that soil and/or groundwater with chemical concentrations that exceed regulatory standards would be properly tested, contained, and disposed of in a safe and legal manner. This would reduce the potential for adverse effects on construction workers, the public, and the environment. With compliance with existing regulations and the implementation of this mitigation measure, this impact would be reduced to a less-than-significant level.

Operations

As described in Section 2.6.4, *Application of Herbicides*, an application of herbicides may follow the mechanical trimming of vegetation to prevent vegetation from recurring. Impacts from the routine use and accidental release of herbicides is analyzed above in Question a. Compliance with applicable federal, state, and local regulations and the applicable BMPs and SPCC plan would ensure that the impact would be less than significant during Project operation and maintenance.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment: *LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.*

Construction

As discussed in Section 3.9.1, *Environmental Setting*, there are four open hazardous materials sites in proximity to Project segments and components, and the extent of contamination at one or more of these sites may extend to the Project alignment. Impacts from encountering contaminated soil or water are analyzed above under Question b. During construction, compliance with existing federal, state, and local regulations and APM HAZ-1 would reduce the risk of creating a significant hazard to the public or environment but not to a less-than-significant level. Implementation of **Mitigation Measure HAZ-1** would reduce construction impacts to less than significant.

> **Mitigation Measure HAZ-1: Soil and Dewatering Management Plan.** See full text for this Mitigation Measure under Question b, above.
>
> **Significance after Mitigation:** With the implementation of Mitigation Measure HAZ-1, contaminated soils would be properly contained and disposed of in a safe and legal manner. With compliance with existing federal, state, and local regulations, and the implementation of this mitigation measure, impacts would be reduced to a less-than-significant level.

Operations

During operation and maintenance, the risk of encountering contaminated soil or water would be greatly reduced compared to construction because there would be little to no ground disturbance. Therefore, compliance with applicable federal, state, and local regulations and the applicable BMPs and SPCC plan would ensure that the impact would be less than significant during Project operation and maintenance.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area: *LESS THAN SIGNIFICANT IMPACT.*

Construction and Operations

The closest public airports are the McClellan-Palomar Airport 1.6 miles away from the staging yards on Eagle Drive in Carlsbad and the Montgomery-Gibbs Executive Airport approximately 2 miles away from the staging yard at an existing SDG&E facility at 5488 Overland Avenue in San Diego. The staging yards on Eagle Drive fall within the FAR Part 77 Airspace Surfaces as designated in the McClellan-Palomar Airport Land Use Compatibility Plan (San Diego County ALUC, 2010). However, the staging yard on Eagle Drive would be used for the laydown of materials only and would adhere to height restrictions per FAR Part 77, *Safe, Efficient Use and Preservation of the Navigable Airspace*. While the Airport Master Plan for the Montgomery-Gibbs Executive Airport is currently being developed (SD Airport Plans, 2018), a safety hazard as a result of the proximity of the staging yard at 5488 Overland Avenue to Montgomery-Gibbs Executive Airport is highly unlikely as the staging yard would be used for the laydown of materials only. This impact would be less than significant. Finally, some Project work would use

helicopters that would use the McClellan-Palomar Airport. However, helicopters take off and land in a vertical manor and within the operational surfaces defined for the airport pursuant to FAR Part 77 and would not result in physical hazards around the airport.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan: *LESS THAN SIGNIFICANT IMPACT.*

Construction

The Emergency Operations Plan for San Diego County does not include any specific evacuation routes; these would be identified and coordinated by local law enforcement and emergency service responders as needed during an emergency situation. Segment 1 would include approximately 2 miles of rebuilding on West San Marcos Boulevard and work on Segment 3 ends at West Mission Road. These roads are public ground transportation routes and Project construction could affect the traffic in these areas by adding congestion to the roads or reducing the capacity of a given roadway. APM TRA-1 includes implementation of traffic control measures that would be used during construction to ensure safety and minimize congestion, and APM TRA-2 requires the Applicant to coordinate with local agencies in the event of an emergency, to allow access for emergency vehicles and equipment. The likelihood that construction would impair or physically interfere with emergency response teams or an evacuation plan is low and the impact would be less than significant.

Operations

As described under Question a, operation and maintenance activities for the Project would be substantially similar to current conditions. Therefore, the Project would not introduce substantially different or new operation and maintenance activities that could result in impacts on emergency response plans or emergency evacuation plans. As a result, the impact from operation and maintenance would be less than significant.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires: *LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.*

Please see Question b in Section 3.20, *Wildfire*, for a detailed discussion of the Project's potential to expose people or structures to a significant risk of loss, injury, or death involving wildland fires. As explained in that section, this impact would be less than significant with incorporation of **Mitigation Measure WIL-1**.

> **Mitigation Measure WIL-1: Fire Safety.** See full text of this Mitigation Measure under Question b in Section 3.20, *Wildfire*.
>
> **Significance after Mitigation:** Mitigation Measure WIL-1 would implement a Project-specific Construction Fire Prevention Plan (CFPP) to ensure the health and safety of construction workers and the public from fire-related hazards. The CFPP would reduce the potential and risk of ignition for wildland fires and reduce the impact to a less-than-significant level.

3.9.5 References

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3.10 Hydrology and Water Quality

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
10. HYDROLOGY AND WATER QUALITY — Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☒	☐	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
(iv) impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

This section describes the existing environmental and regulatory setting of the Project, including the hydrology in the Project vicinity, and evaluates the potential for construction, operation, and maintenance of the Project to result in impacts to hydrology and water quality. For the purposes of the evaluation of hydrology and water quality, the study area includes the Project site and vicinity, including the footprint of all areas of Project-related temporary and/or permanent ground disturbance, as well as water features and drainages potentially influenced by the Project.

3.10.1 Environmental Setting

The Project is located within San Diego County, predominantly in the Carlsbad Watershed but also in the San Diego Watershed, where existing SDG&E staging areas are located at 12332 Vigilante Road in Lakeside and at 5488 Overland Avenue in San Diego. The Project study area ranges in elevation from approximately 400 to 1,100 feet above mean sea level. The southwest coastal region of California is generally arid and characterized by hot, dry summers, and mild winters, typical of a Mediterranean climate. The region normally receives very little annual rainfall, with the majority of

precipitation typically falling between October and May and averaging a total of 10 to 13 inches intermittently over this timeframe (San Diego RWQCB, 2016).

Surface Water Hydrology

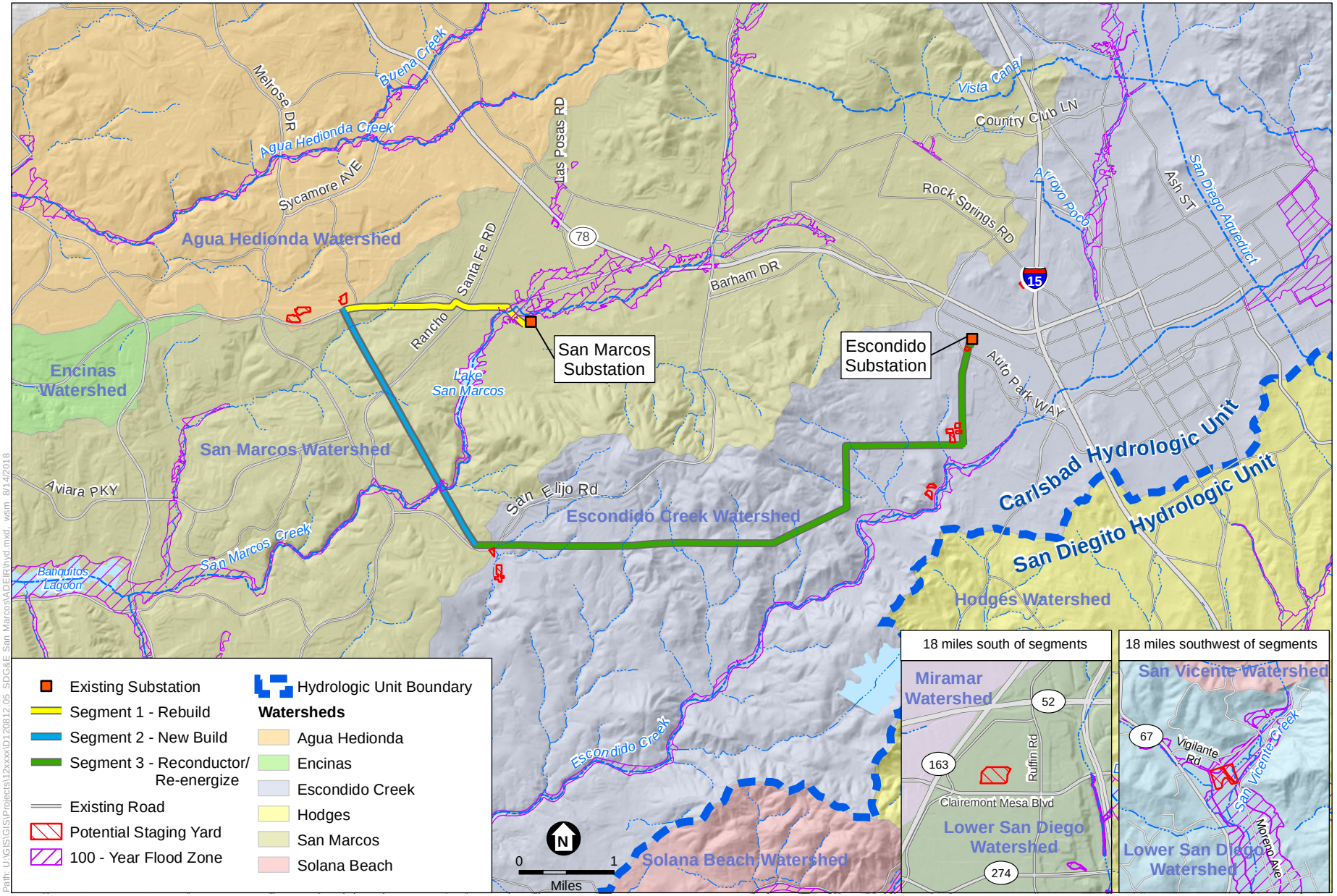
Surface waters and drainages in the Project study area are shown in **Figure 3.10-1**, *Surface Hydrology and 100 Year Flood Zones in the Project Vicinity*. The Project would be located in the Carlsbad and San Diego watersheds. The Carlsbad Watershed is divided into six hydrologic areas: Loma Alta, Buena Vista Creek, Agua Hedionda, Encinas, San Marcos Creek, and Escondido Creek. This watershed encompasses approximately 210 square miles and includes Escondido Creek and its tributaries and major waterbodies such as Lake Wohlford, Dixon Reservoir, and Olivenhain Reservoir. The watershed is drained by Buena Vista, Agua Hedionda, San Marcos, and Escondido creeks (San Diego RWQCB, 2016). Subwatershed areas draining the study area include Escondido, San Elijo, Batiquitos, and Richland. The San Diego Watershed is divided into four hydrologic areas: Lower San Diego, San Vicente, El Capitan, and Boulder. This watershed comprises about 440 square miles and is drained by the San Diego River. El Capitan, San Vicente, Cuyamaca, Jennings, and Murray reservoirs are the major water storage facilities.

Segments 1 and 2 would be constructed adjacent to or near Lake San Marcos and San Marcos Creek, which drains into Batiquitos Lagoon. San Marcos Creek flows generally westward to the Batiquitos Lagoon where it meets the Pacific Ocean. Segment 3 and staging yards north and south of Harmony Grove Village Parkway would be located adjacent to or near Escondido Creek, which originates in Bear Valley and flows to San Elijo Lagoon where it meets the Pacific Ocean (Escondido Creek Conservancy, 2018). The staging yard at 12332 Vigilante Road in Lakeside would be located near the San Vicente Reservoir, in an area that drains to San Vicente Creek.

Groundwater

The Project would partially overlie the San Marcos Valley, Escondido Valley, and San Diego River Valley groundwater basins. None of the water-bearing formations in these basins are in contact with the ocean. All three basins are bounded by contacts with semi-permeable or impermeable geologic formations (California Department of Water Resources [DWR], 2004). Recharge of the San Marcos Valley groundwater basin occurs chiefly by percolation of rainfall and stream flow (DWR, 2004). Recharge of the Escondido Valley groundwater basin occurs by percolation of rainfall and from water bearing deposits such Quaternary-age alluvium[1] and residuum.[2] Recharge of the San Diego River Valley groundwater basin occurs by dam releases, underflow past the El Capitan and San Vicente dams, stream-flow, precipitation onto the valley floor, and discharges from wastewater treatment plants (DWR, 2004). Groundwater quality in these basins varies, and is locally degraded, due to previous land uses. For example, a contaminant plume may be present within the San Marcos Valley groundwater basin due to previous automotive land uses (SWRCB, 2017).

1 Deposits of sediment transported by a stream or river and deposited on the floodplain.
2 Weathered material remaining in place after soluble materials have been removed by the action of water.



SOURCE: SDGE, 2018; FEMA, 2018; DWR

TL 6975 San Marcos to Escondido Project

Figure 3.10-1
Surface Hydrology

Path: U:\GIS\GIS\Projects\12xxxx\D120812_05_SDG&E San Marcos\ADEIR\hyd mxd wsm 8/14/2018

Flooding

Most of the study area would be located outside flood hazard zones as designated by the Federal Emergency Management Agency (FEMA). However, a portion of Segment 1 near the San Marcos Substation, a portion of Segment 2 near San Marcos Creek, and the staging yard at 12332 Vigilante Road would be located in an area mapped within the 1 percent annual chance (100-year) flood zone, as shown on Figure 3.10-1. The study area is not located within an area identified by the California Office of Emergency Services (Cal OES) as a tsunami inundation zone. However, the northeast portion of Segment 1 and the San Marcos substation are located within the dam inundation zone of South Lake (City of San Marcos, 2012), a small portion of the potential staging area north and south of Harmony Grove Village Parkway is within the Lake Wohlford dam inundation zone, and the staging area at 12332 Vigilante Road is within the San Vicente dam inundation zone (Cal OES, 2018).

3.10.2 Regulatory Setting

Federal and State

Federal Clean Water Act

The federal Clean Water Act (CWA), enacted by Congress in 1972 and amended several times since its inception, is the primary federal law regulating water quality in the United States and forms the basis for several State and local laws throughout the country. Its objective is to reduce or eliminate water pollution in the nation's rivers, streams, lakes, and coastal waters. The CWA authorizes the U.S. Environmental Protection Agency (USEPA) to implement federal water pollution control programs, such as setting water quality standards for contaminants in surface water, establishing wastewater and effluent discharge limits for various industry categories, and imposing requirements for controlling nonpoint-source pollution. At the federal level, the CWA is administered by the USEPA and U.S. Army Corps of Engineers (USACE). At the State and regional levels, the act is administered and enforced by the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCB).

The SWRCB provides State-level coordination of the water quality control program by establishing statewide policies and plans for the implementation of State and federal regulations. The RWQCBs in California adopt and implement water quality control plans that recognize the unique characteristics of each region with regard to natural water quality, actual and potential beneficial uses, and water quality problems. The study area is located in the San Diego RWQCB, Region 9. The San Diego RWQCB adopts and implements a Water Quality Control Plan for the San Diego Basin (more commonly known as the "Basin Plan") that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan (California Water Code §§13240-13247).

Beneficial Use and Water Quality Objectives (CWA §303)

The San Diego RWQCB is tasked with developing and enforcing water quality objectives and implementing plans to protect the waters within its jurisdiction. The RWQCB designates beneficial uses of water bodies in the San Diego Region and establishes water quality objectives

through implementation of the Basin Plan. The designation of beneficial uses for the waters of the State by the RWQCB is mandated under Water Code Section 13240. CWA Section 303 requires that the State adopt designated beneficial uses for surface waters. The most recent version of the Basin Plan for the San Diego region was published in 1994 with amendments effective on or before May 17, 2016.

In accordance with State policy for water quality control, the RWQCB employs a range of beneficial use definitions for surface waters and groundwater basins that serve as the basis for establishing water quality objectives and discharge conditions and prohibitions. The Basin Plan identifies existing and potential beneficial uses supported by the key surface water drainages throughout its jurisdiction (San Diego RWQCB, 2016). **Table 3.10-1** identifies beneficial uses designated in the Basin Plan for the surface water bodies relevant to the study area. The Basin Plan also includes water quality objectives that are protective of the identified beneficial uses; the beneficial uses and water quality objectives collectively make up the water quality standards for a given region and Basin Plan. The Basin Plan also includes actions necessary to maintain these water quality standards.

TABLE 3.10-1
DESIGNATED BENEFICIAL USES OF WATER BODIES IN THE STUDY AREA

Water Body	Designated Beneficial Uses
Lake San Marcos	AGR, REC1, REC2, WARM, WILD
San Marcos Creek	MUN, AGR, REC1, REC2, WARM, WILD
Escondido Creek	MUN, AGR, IND, REC1, REC2, WARM, COLD, WILD
San Vicente Creek	MUN, IND, REC1, REC2, WARM, WILD

NOTES:

Existing and Potential Beneficial Uses Key:

MUN (Municipal and Domestic Supply); AGR (Agricultural Supply); REC1 (Body Contact Recreation); REC2 (Noncontact Recreation); WARM (Warm Freshwater Habitat); COLD (Cold Freshwater Habitat), WILD (Wildlife Habitat); IND (Industrial Service Supply).

SOURCES: San Diego RWQCB, 2016, 2017

Section 303(d) of the CWA requires that each state identify water bodies or segments of water bodies that are "impaired" (i.e., do not meet one or more of the water quality standards established by a state, even after point sources of pollution have been equipped with the minimum required levels of pollution control technology). USEPA must approve the Section 303(d) List of Impaired Water Bodies before it is considered final. Inclusion of a water body on the 303(d) List triggers development of a Total Maximum Daily Load (TMDL) for that water body and a plan to control the associated pollutant/stressor on the list. The TMDL is the maximum amount of a pollutant/stressor that a water body can assimilate and still meet the water quality standards. Typically, a TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. **Table 3.10-2** lists the impaired water bodies in the study area, including the pollutants that cause the impairments.

TABLE 3.10-2
303(D) LIST OF IMPAIRED WATER BODIES IN THE STUDY AREA

Impaired Water Bodies	Pollutants
Lake San Marcos	Ammonia as Nitrogen, Copper, Nutrients, Phosphorus, Indicator Bacteria
San Marcos Creek	DDE, Indicator Bacteria, Phosphorus, Selenium
Escondido Creek	Bifenthrin, DDT, Indicator Bacteria, Malathion, Manganese, Nitrogen, Phosphate, Selenium, Sulfates, total dissolved solids
San Vicente Creek	Ammonia as Nitrogen, Indicator Bacteria, Phosphorus, Total Nitrogen as N

SOURCE: San Diego RWQCB, 2016

National Pollutant Discharge Elimination System Program CWA Section 402

Under CWA Section 402, the National Pollutant Discharge Elimination System (NPDES) storm water permitting program controls water pollution by regulating point sources of pollution to waters of the United States. The RWQCB administers the NPDES program in the San Diego region.

NPDES General Permit for Discharges of Stormwater Associated with Construction Activities (Order 2009-0009-DWQ)

Because the Project would result in the disturbance of 1.0 acre or more of soil, it would be subject to the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order 2009-0009-DWQ, NPDES No. CAS000002; as amended by Orders 2010-0014-DWQ and 2012-006-DWQ), commonly referred to as the Construction General Permit. The permit regulates storm water discharges associated with construction or demolition activities, such as clearing and excavation; construction of buildings; and linear underground projects, including installation of water pipelines and other utility lines.

In addition to storm water discharges, the Construction General Permit also covers other non-storm water discharges including irrigation of vegetative erosion control measures, water to control dust, uncontaminated ground water from dewatering, and other discharges not subject to a separate general NPDES permit adopted by the Regional Water Board. The discharge of non-storm water is authorized under the following conditions:

- The discharge does not cause or contribute to a violation of any water quality standard;
- The discharge does not violate any other provision of the General Permit;
- The discharge is not prohibited by the applicable Basin Plan;
- The discharger has included and implemented specific Best Management Practices (BMPs) required by the General Permit to prevent or reduce the contact of the non-storm water discharge with construction materials or equipment.
- The discharge does not contain toxic constituents in toxic amounts or (other) significant quantities of pollutants;
- The discharge is monitored and meets the applicable numeric action levels; and
- The discharger reports the sampling information in the Annual Report.

The Construction General Permit requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that includes specific BMPs designed to prevent sediment and other pollutants from contacting storm water and from moving offsite into receiving waters. The BMPs fall into several categories, including erosion control, sediment control, waste management and good housekeeping, and are intended to protect surface water quality by preventing the off-site migration of eroded soil and construction-related pollutants from the construction area. Routine inspection of all BMPs is required under the provisions of the Construction General Permit. In addition, the SWPPP is required to contain a visual monitoring program and a chemical monitoring program for non-visible pollutants.

A SWPPP would be implemented for the Project and at a minimum, would include:

- Description of construction materials, practices, and equipment storage maintenance;
- List of pollutants likely to contact storm water and site specific erosion and sedimentation control practices;
- List of provisions to eliminate or reduce discharge of materials to storm water;
- BMPs for fuel and equipment storage;
- Non-storm water management measures, such as installing specific discharge controls during activities such as paving operations and vehicle and equipment washing and fueling; and
- Commitment that equipment, materials, and workers would be available for rapid response to spills and/or emergencies. All corrective maintenance or BMPs would be performed as soon as possible, depending upon worker safety.

The SWPPP provides specific construction-related BMPs to prevent soil erosion and loss of topsoil. BMPs implemented could include, but would not be limited to: physical barriers to prevent erosion and sedimentation, construction of sedimentation basins, limitations on work periods during storm events, use of swales, protection of stockpiled materials, and a variety of other measures that would substantially reduce or prevent erosion from occurring during construction. Post-construction requirements necessitate that construction sites be restored to pre-project hydrological conditions to ensure that the physical and biological integrity of aquatic ecosystems are sustained in their existing condition.

Oil Pollution Prevention

Under the authority of CWA Section 311, the Oil Pollution Prevention regulation in Title 40, Part 112 of the Code of Federal Regulations (40 CFR 112) establishes procedures, methods, equipment, and other requirements to prevent discharges from non-transportation-related onshore and offshore facilities into the waters of the United States. These regulations require facilities with a single tank or cumulative aboveground storage capacities of 1,320 gallons or greater of petroleum to prepare and implement a Spill Prevention, Control, and Countermeasure (SPCC) Plan (40 CFR § 112.1). The purpose of an SPCC Plan is to form a comprehensive federal/state spill prevention program that minimizes the potential for discharges. The SPCC Plan must address all relevant spill prevention, control, and countermeasures necessary at the specific facility for which the SPCC Plan is written.

National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) determines flood elevations and floodplain boundaries and distributes the flood insurance rate maps used in the National Flood Insurance Program. These maps identify the locations of special flood hazard areas, including 100-year floodplains (i.e., areas that would have a 1 percent annual chance of flooding).

Federal regulations governing development in a floodplain are set forth in Title 44, Part 60 of the Code of Federal Regulations. Those regulations enable FEMA to require municipalities participating in the National Flood Insurance Program to adopt certain flood hazard reduction standards for construction and development in 100-year floodplains. As shown in Figure 3.10-1, portions of Segments 1 and 2 and the staging area at 12332 Vigilante Road in Lakeside would be located within the 100-year floodplain.

California Fish and Game Code Section 1602

Section 1602 of the Fish and Game Code protects the natural flow, bed, channel, and bank of any river, stream, or lake under the jurisdiction of the California Department of Fish and Wildlife (CDFW). For projects affecting the bed, bank, or flow of water under CDFW jurisdiction, applicants must submit a notification of lake or streambed alteration to CDFW. CDFW may issue a Lake and Streambed Alteration Agreement if it determines that the activity may substantially adversely affect fish and wildlife resources. The Project would include construction near Lake San Marcos and San Marcos and Escondido creeks.

Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Control Act, the SWRCB has authority over waters of the State and water quality. The RWQCBs have local and regional authority. The Project is proposed in an area under the jurisdiction of the San Diego RWQCB. The San Diego RWQCB prepares and periodically updates the Basin Plan described under the heading *Beneficial Use and Water Quality Objectives (CWA §303)*, above. Pursuant to the CWA NPDES program, the Porter-Cologne Act also delegates the authority to the RWQCBs to issue NPDES permits.

Waste Discharge Requirements

Actions that involve or are expected to involve discharge of waste may be subject to waste discharge requirements (WDR) under the Porter-Cologne Act. Chapter 4, Article 4 of the Act (Water Code §§13260-13274) states that persons discharging or proposing to discharge waste that could affect the quality of waters of the State (rather than into a community sewer system) shall file a Report of Waste Discharge with the applicable RWQCB. However, the RWQCB has issued a waiver for certain types of discharges, as discussed below.

Waiver for Specific Types of Discharges (San Diego RWQCB Order Number R9-2014-0041)

California Water Code Section 13269 gives each Regional Water Board the authority to conditionally waive the prescription of waste discharge requirements for a specific discharge or type of discharge. In order to do so, a Regional Water Board must determine that a waiver for a

specific discharge or type of discharge is consistent with the Basin Plan and is not against the public interest. The types of discharges which may be eligible for a waiver only include discharges to land and groundwater, and discharges to surface waters that are not otherwise subject to National Pollutant Discharge Elimination System (NPDES) regulations. The RWQCB has adopted a waiver of waste discharge requirements (Resolution R9-2014-0041, *Conditional Waivers of Waste Discharge Requirements for Low Threat Discharges in the San Diego Region*) for specific types of low-threat discharges to the land surface within the San Diego region. Discharges to land of recycled water, construction dewatering, and dredged material disposal to land are among the activities covered by this waiver, providing the subject activities meet the conditions specified within the waiver. Waivers serve much the same purpose as general permits (i.e., they are intended to describe a range of protective measures that could be applied to a broad category of activities). This waiver must be obtained from the RWQCB for any actions that would involve use of recycled water during construction and dewatering and/or long-term storage of excavated material on the land surface.

Dewatering may be necessary in some locations for the Project that would be subject to the adopted waiver. Conditions on use of the waiver for short-term construction dewatering operations include:

- The discharge of groundwater pumped from any well or excavation that is used in a soil and/or groundwater contamination investigation or corrective action may not be discharged to land, unless the discharger has filed a complete NOI containing monitoring data demonstrating that the quality of the proposed discharge would not cause the groundwater to exceed water quality objectives.
- For dewatering operations discharging in excess of an average of 5,000 gallons per day for any continuous 180-day period, the discharger must file a complete NOI containing information about the operator, location, planned period and rate of discharge, and measures that will be taken to minimize or eliminate the discharge of pollutants that might affect groundwater quality. Written notice of enrollment in the Waiver must be received by the San Diego Water Board prior to initiating the discharge.
- Discharge under this waiver from short term construction dewatering operations are prohibited from entering MS4s and any surface waters including, but not limited to, ephemeral streams or vernal pools.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act of 2014 (SGMA, Water Code §10723) provides a framework for sustainable management of groundwater resources. Sustainable groundwater management means the management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results. Undesirable results in this context are one or more of the following:

- Chronic lowering of groundwater levels
- Significant and unreasonable reduction of groundwater storage
- Significant and unreasonable seawater intrusion

- Significant and unreasonable degraded water quality, including the migration of contaminant plumes that impair water supplies
- Significant and unreasonable land subsidence that substantially interferes with surface land uses
- Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water

In groundwater basins designated by DWR as medium and high priority, local public agencies and locally-controlled groundwater sustainability agencies (GSAs) are required to develop and implement groundwater sustainability plans (GSPs) or alternatives to GSPs. Each GSP or alternative must include measurable objectives and interim milestones for achieving sustainability goals for the given groundwater basin. Plans must also include a physical description of the basin, including information on groundwater levels, groundwater quality, subsidence and groundwater-surface water interaction, historical and projected water demand and supply data, monitoring and management provisions, and a description of how the plan will affect other plans. The State has designated four groundwater basins in San Diego County as medium-priority groundwater basins within the context of SGMA, including the San Diego River Valley Basin (County of San Diego, 2018). The Escondido Valley and San Marcos Area basins are ranked very low (DWR, 2018). GSPs have not been completed for these basins.

3.10.3 Applicant Proposed Measures

No Applicant Proposed Measures (APMs) have been identified that would address potential impacts to hydrology and water quality.

3.10.4 Environmental Impacts

Discussion

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality: *LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED.*

Construction

As noted in Table 2-7, *Temporary Working Areas*, construction activities would disturb more than 1 acre of ground surface. Water quality impacts would most likely occur during construction and installation of replacement poles as part of Segment 1, construction and installation of new poles as part of Segment 2, and the removal of existing poles outside of the Escondido substation. Construction could cause erosion that may contaminate runoff primarily as a result of ground disturbance, grading, and removal of vegetation, and during the preparation of construction staging areas and new access roads. In addition to impacts from erosion, contamination from fuels or other hazardous materials used during construction could also adversely affect water quality. Dewatering may be necessary in some locations. The geotechnical study conducted for the Project indicated groundwater levels ranging from 4 to 20 feet below ground surface (GEOCON Inc., 2017). Pole foundation excavations could yield up to 111,000 gallons, while no dewatering

is anticipated for the trenches (SDG&E, 2018). Dewatered groundwater could affect water quality if it is not adequately treated or controlled.

Construction activities would be undertaken in accordance with the SDG&E BMP Manual for Water Quality Construction (SDG&E, 2011). Many of the construction activities of SDG&E are linear in nature, unique to utility work, and do not correspond to typical large development project BMPs. This manual tailors typical BMPs as applicable to utility type work and utility work crews. SDG&E would be required to obtain coverage for the Project under the NPDES Construction General Permit and adhere to permit requirements, including the implementation of a SWPPP. The SWPPP would include detailed BMPs designed to avoid water quality impacts of all construction activities, including groundwater dewatering, materials staging, and equipment washing at staging yards, such that project construction would not violate water quality standards, worsen existing water quality violations, or otherwise adversely affect water quality in Lake San Marcos, San Marcos Creek, Escondido Creek, or San Vicente Creek.

Prior to construction, SDG&E would obtain coverage from the RWQCB under the wavier of WDRs, Resolution R9-2014-0041, *Conditional Waivers of Waste Discharge Requirements for Low Threat Discharges in the San Diego Region*. Construction dewatering and dredged material disposal to land are among the activities covered by this waiver. However, this would not exempt SDG&E from also including groundwater dewatering BMPs in the SWPPP.[3]

Within the existing Escondido Substation, a concrete oil containment wall and a concrete circuit breaker pad would be removed. The existing mineral oil circuit breaker would be replaced with a gas (sulfur hexafluoride or SF6) circuit breaker, which would not require containment. The removal of these facilities, along with other Project construction activities, would be subject to the State Construction General Permit and the SWPPP.

Section 3.9, *Hazards and Hazardous Materials*, lists the locations of potentially contaminated sites within 0.25 mile of the Project components. Of the four open sites listed, staging without ground disturbance or dewatering would occur at three (1601 San Elijo Road Project, San Marcos Landfill, and East County Sand Mine). Construction dewatering near the CRM Automotive Repair site (listed by GeoTracker as an open Leaking Underground Storage Tank (LUST) Cleanup Site) could encounter contaminated groundwater, although the duration and volume of dewatering would be limited to that required for replacement of two pole foundations (poles 20 and 21). The untreated release of contaminated dewatered groundwater could significantly adversely affect water quality. Potentially significant impacts associated with the potential release of hazardous materials-contaminated groundwater during dewatering are evaluated in Section 3.9, *Hazards and Hazardous Materials*. With implementation of **Mitigation Measure HAZ-1**, Soil and Groundwater Management Plan, impacts on surface water quality related to construction dewatering would be less than significant.

[3] Water Code Section 13269 does not authorize the San Diego Water Board to issue waivers of WDRs for waste discharges subject to federal regulations implementing the federal Clean Water Act and the federal National Pollutant Discharge Elimination System (NPDES) regulations.

Construction dewatering at poles 20 and 21 could also affect groundwater quality by causing migration of a suspected groundwater contamination plume from the CRM Automotive Repair site. However, there are no public water system wells within 1 mile of poles 20 and 21; furthermore, if the CRM Automotive Repair contaminant plume is present, it is likely to already be in contact with the San Marcos Valley aquifer (SWRCB, 2018). As discussed above, should the contaminant plume migrate such that contaminated groundwater is encountered during construction dewatering, the groundwater would be handled in compliance with BMPs and Mitigation Measure HAZ-1. Thus, the Project would not substantially degrade groundwater quality due to migration of a contaminant plume compared to existing conditions.

Accidental releases of hazardous materials that are used during construction, such as diesel fuel, hydraulic fluid, or oils and grease, could have an adverse effect on water quality. Potential spills of hazardous materials would be minimized through hazardous materials management measures (see Section 3.9, *Hazards and Hazardous Materials*). Adherence to the BMPs, as outlined in the SWPPP, and the conditions of Resolution R9-2014-0041 would reduce potential impacts to water quality to less-than-significant levels. This potential impact is discussed in Section 3.9, *Hazards and Hazardous Materials.* As discussed there, impacts related to accidental releases of hazardous materials would be less than significant with implementation of APM HAZ-1 and Mitigation Measure HAZ-1.

> **Mitigation Measure HAZ-1: Soil and Dewatering Management Plan.** See full text for this Mitigation Measure in Section 3.9, *Hazards and Hazardous Material,* Question b.
>
> **Significance after Mitigation:** Mitigation Measure HAZ-1 would ensure that soil and water are monitored and that soil and/or water with chemical concentration that exceed regulatory standards would be properly tested, contained, and disposed of in a safe and legal manner. This would reduce the impact of accidental releases of hazardous materials during construction that could have an adverse effect on water quality. The implementation of Mitigation Measure HAZ-1 would reduce the impact to a less-than-significant level.

Operations and Maintenance

Project operation and maintenance could result in impacts on surface water and/or groundwater quality as a result of accidental release of pollutants. For example, oils, fuels, and hazardous substances used during routine operation and maintenance of the three substations could adversely affect water quality if such pollutants were to contact storm water or non-storm runoff or infiltrate into groundwater. Potential spills of hazardous materials would be minimized through hazardous materials management measures contained in the SPCC Plan (see Section 3.9, *Hazards and Hazardous Materials*), resulting in a less-than-significant impact.

In addition, as described in Section 2.6.4, *Application of Herbicides*, an application of herbicides may follow the mechanical trimming of vegetation to prevent vegetation from recurring. This occurs annually under baseline conditions during the “wet season” (i.e., fall through spring), prior to the last rains of the season, and would continue to occur under Project conditions. SDG&E practices application according to its annual Pest Control Recommendation, which includes guidance on quantity, pesticide mix, hazards, and use restrictions (Wilbur-Ellis Company, 2017).

As shown in Table 3.10-2, the surface water bodies in the study area on the 303(d) List are not listed as impaired due to the ingredients included in the herbicide mixture; thus, these ingredients would not contribute to existing impairments. When applied in accordance with the SDG&E Pest Control Recommendation, the impact of herbicides on water quality would be less than significant.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin: *LESS THAN SIGNIFICANT IMPACT.*

Construction

Project construction would require water for dust control on roads, washing off equipment, pad grading, grout mixing, pole backfill and concrete wash out, drinking water and sanitation, and restoration activities. SDG&E anticipates that most of the Project water supply would come from the Vallecitos Water District (VWD), which has sufficient water supply to support the needs of the Project (VWD, 2017). The VWD obtains its water supply primarily from the Colorado River and the State Water Project (i.e., surface water sources); therefore, construction water use would not appreciably decrease groundwater supplies (VWD, 2018).

As described above under Question a., pole foundation excavations could result in dewatering of 111,000 gallons. The San Marcos Valley groundwater basin is ranked by the State as very low priority for sustainable groundwater management (DWR, 2018). Permanent wells would not be installed during construction, and the amount of water pumped would be equivalent to pumping from the water bearing units of the aquifer for 31 hours total.[4] The Project therefore would not result in chronic lowering of groundwater levels or unreasonable reductions in groundwater storage. For these reasons, the project would not impede the sustainable groundwater management of the San Marcos Valley groundwater basin and impacts would be less than significant.

Operations and Maintenance

Project operation would result in some water use for dust control and other maintenance needs; however, as described in Section 2.6.1, the Project would eliminate the existing need for insulator washing. Therefore, the change in water consumption would be negligible. Water would be sourced from the VWD and therefore would not affect groundwater supplies.

As noted in Table 2-6, *Permanent Work Areas*, the Project would add 60 permanent work pads upon completion totaling 1.92 acres, four new spur roads totaling 0.12 acre, and one permanent access road totaling 0.18 acre. These new permanent impervious surfaces would be designed to meet post-construction requirements of the Construction General Permit, including that construction sites be restored to pre-project hydrological conditions, which would reduce Project impacts on groundwater recharge such that no chronic groundwater lowering, significant and unreasonable reduction of groundwater storage, significant and unavoidable land subsidence, or

[4] The water bearing units in the San Marcos Valley basin are up to 175 feet thick, and wells screened in these units produce water at 60 gallons per minute.

depletions of interconnected surface water would result. Impacts of the Project on groundwater supplies and recharge during operations would be less than significant.

c.i) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site: *LESS THAN SIGNIFICANT IMPACT.*

Construction

The Project would not alter the course of any stream or river. Project construction would include ground disturbing activities that could expose soils to erosion or siltation. Cut and fill would be required at some structure locations to create construction and line maintenance pads, as noted in Section 2.5.3, *Pre-Construction Preparation*. Construction activities would include the implementation of required BMPs in accordance with the implementation of a SWPPP and SDG&E's BMP Manual, which include erosion control measures to minimize the potential for erosion and siltation. Implementation of these required BMPs would reduce the potential impact related to drainage patterns causing erosion or siltation to less than significant.

Operations and Maintenance

Once constructed, drainage patterns would be relatively similar to existing conditions other than a slight increase in runoff as a result of an increase in new impervious surfaces (less than 2.5 acres spread out over more than 60 sites). Operation and maintenance of the Project facilities would not require further changes to surface grades that could significantly alter existing drainage patterns. If grading is needed to preserve surface contours in unpaved areas, it would occur with BMPs implemented per the SDG&E BMP Manual and NPDES Construction General Permit requirements to return runoff to existing drainage patterns and to stabilize surface disturbances. For these reasons, the potential impact from changes to drainage patterns causing erosion or siltation would be less than significant.

c.ii) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite: *LESS THAN SIGNIFICANT IMPACT.*

Construction

As noted under Question c.i, the Project would include approximately 2.5 acres of new impervious surface area. The Project would also be required to adhere to post-construction drainage control standards under the Construction General Permit, which requires that construction sites be restored to pre-project hydrologic conditions. By restoring sites to pre-project hydrologic conditions, the rate and amount of surface runoff generated would not substantially increase. In addition, the Project would not require the substantial modification of any upland sites to an extent that it could alter drainage patterns in a way that would increase the potential for on- or off-site flooding. Therefore, based on the Project characteristics and the implementation of required post-construction standards, the impact would be less than significant.

Operations and Maintenance

For the same reasons provided under Question c.i, Project operation and maintenance would not alter the existing drainage pattern of the site or area. Therefore, it would have a less-than-significant impact with respect to increasing the rate or amount of surface runoff in a manner which would result in flooding on- or offsite.

c.iii) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff: *LESS THAN SIGNIFICANT IMPACT.*

Construction

The Project would include only minor additions of impervious surfaces such that the additional amount of storm water runoff would be small. SDG&E would also implement a SWPPP and BMPs during operation and maintenance in accordance with its BMP Manual. During construction, implementation of a SWPPP would limit runoff volume and control pollutants to ensure there would be no adverse effects on water quality. Project impacts on runoff volumes would be negligible and would not result in an exceedance of the capacity of existing or planned storm water drainage systems or cause a substantial increase in the amount of polluted runoff. Impacts would be less than significant.

Operations and Maintenance

For the same reasons provided under Question c.i, Project operation and maintenance would not alter the existing drainage pattern of the site or area. Therefore, it would have a less-than-significant impact with respect to creating or contributing runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.

c.iv) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows: *NO IMPACT.*

Construction

While the majority of the Project site is not located within a 100-year flood hazard area, a portion of Segment 1 near the San Marcos Substation, a portion of Segment 2 near San Marcos Creek, and the staging yard at 12332 Vigilante Road would be located in an area mapped within the 1 percent annual chance (100-year) flood zone. Construction and staging activities would not substantially alter existing drainage patterns in these areas. There would be no impact.

Operations and Maintenance

The affected portion in Segment 1 would involve overhead work on an existing power line and replacing existing wood poles structures with steel poles and existing porcelain insulators with polymer. The affected portion in Segment 2 includes overhead work on a new power line. No new permanent structures are proposed to be placed within the 100-year flood hazard area. For

the same reasons provided under Question c.i, Project operation and maintenance would not alter the existing drainage pattern of the site or area. Therefore, it would have no impact with respect to impeding or redirecting flood flows.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation: *LESS THAN SIGNIFICANT IMPACT.*

The Project is not located in a tsunami or seiche zone.

Construction

Dam inundation maps indicate that a small portion of the potential staging area north and south of Harmony Grove Village Parkway is within the Lake Wohlford dam inundation zone; and the staging area at 12332 Vigilante Road is within the San Vicente dam inundation zone (Cal OES, 2018). Any Project-related materials located at the staging areas would only be present on a temporary basis, and storm water BMPs designed to control pollutants would be installed in these areas pursuant to the CGP. The Project therefore would not place substantial new pollutant sources within these dam inundation zones and the impact would be less than significant.

Operations and Maintenance

Dam inundation maps indicate that the northeast portion of Segment 1 and the San Marcos substation are located within the dam inundation zone of South Lake (City of San Marcos, 2012). The Project would not permanently expand the footprint of the San Marcos Substation and would not add to the existing number of power poles in the area. Therefore, the Project would have a less-than-significant risk of releasing pollutants if Project sites are inundated by flooding.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? *LESS THAN SIGNIFICANT IMPACT.*

There is no sustainable groundwater management plan relevant to the groundwater basins underlying the study area.

Construction

Project construction would not conflict with or obstruct implementation of the Basin Plan because SDG&E would dewater groundwater consistent with the requirements of *Conditional Waivers of Waste Discharge Requirements for Low Threat Discharges in the San Diego Region*. The Project would also implement BMPs selected to be protective of surface and groundwater quality as part of a SWPPP, in compliance with the CGP, as discussed in Question a. The impact would be less than significant.

Operations and Maintenance

The new impervious areas created by the project would be restored to pre-project hydrological conditions as required by the CGP, and would be used only for vehicle and equipment access as needed during operations and maintenance; runoff from these areas therefore would not contain sediment or fuel pollutants at levels that would substantially affect water quality objectives

identified for nearby surface water bodies. The herbicide mixture to be used does not contain ingredients for which nearby surface water bodies are listed as impaired, as discussed in Question a. For these reasons, Project operations would not conflict with or obstruct implementation of the Basin Plan, and the impact would be less than significant.

3.10.5 References

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Escondido Creek Conservancy, 2018. About the Watershed. Available online at: https://escondidocreek.org/the-watershed/. Accessed July 9, 2018.

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State Water Resources Control Board (SWRCB), 2018. GAMA Groundwater Information System, Groundwater Well Locations for Domestic Wells and Public Water System Wells. Available online at: http://geotracker.waterboards.ca.gov/gama/gamamap/public/. Accessed September 12, 2018.

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VWD, 2018. About Us. Available online at: http://www.vwd.org/about-us. Accessed on July 9, 2018.

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3.11 Land Use and Planning

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
11.	**LAND USE AND PLANNING — Would the project:**				
a)	Physically divide an established community?	☐	☐	☐	☒
b)	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

This section evaluates the potential for Project construction, operation, and maintenance to result in impacts related to land use and planning in the study area. For the purposes of the evaluation of potential land use impacts, the study area was defined as the footprint of all Project components, including all areas of temporary and/or permanent ground disturbance and the surrounding communities within which the Project would be constructed, operated, and maintained.

3.11.1 Environmental Setting

The Project is located in northern San Diego County and would include the cities of Carlsbad, San Marcos, Vista, and Escondido and parts of unincorporated San Diego County. Land use within the study area is predominantly residential, commercial, industrial, public/institutional, open space, and undeveloped. The Project would be built primarily within existing SDG&E rights-of-way (ROWs). However, approximately 1.2 acres of additional ROW would be required to accommodate the re-build along Segment 1. The City of San Marcos General Plan land use and zoning designations that would occur within and adjacent to the Project site are described below.

- **San Marcos Substation:** The San Marcos substation is the western terminus of the Project. This facility is walled to separate it from the surrounding single-family residential area. The San Marcos General Plan land use and zoning designations at this site are both Public/ Institutional (P-I). The General Plan land use and zoning designations for the immediately surrounding area are Low Density Residential and Residential-2 (R-2), respectively.
- **Segment 1:** From the San Marcos Substation, Segment 1 continues generally westward in the City of San Marcos along Discovery Street and West San Marcos Boulevard/Palomar Airport Road, ending west of White Sands Drive in the City of Carlsbad. Between Avenida de Las Rosas and the Carlsbad city limit, the Project is located along the common border between the cities of Vista and San Marcos.

  Portions of the Project that pass through the City of San Marcos are designated, by the General Plan, as Public/Institutional (PI), Commercial (C), Medium Density Residential 1 (MDR1), Very Low Density Residential (VLDR), Open Space (OS), and Specific Plan Areas (SPA). Portions of the Project that cross the City of San Marcos are zoned, by the San Marcos Zoning Ordinance, as Public/Institutional (P-I), Commercial (C), Residential-2 (R-2), Residential Low, (R-1-10), Open Space (OS), and Specific Plan Area (SPA). Specific Plan Areas through which Segment 1 passes include, from east to west, San Marcos Creek, Laurels, Meadowlark Canyon, and Rancho Dorado (residential developments).

The portions of Segment 1 in the City of Carlsbad are in undeveloped spaces along Palomar Airport Road. Open Space (OS) is the only City of Carlsbad General Plan designation included in the Project study area, although Planned Industrial (PI) designations are adjacent to the east and west. The zoning designations at this location mirror the General Plan, with the Project components in an Open Space (OS) zone and Planned Industrial (P-M) zones to the east and west.

The City of Vista General Plan designations include General Commercial (GC), Research Light Industrial (RLI), and Mixed Use (MU). The zoning designations in this area are provided in the Vista Business Park Specific Plan, and the Project would be located within Specific Plan Area A and the mixed use overlay.

Approximately 1.2 acres of new ROW would be required along Segment 1. The legal parcels that would be affected by the proposed additional ROW area are located along the south side of West San Marcos Boulevard at San Marcos High School (i.e., Poles 11-20) and from the vicinity of Viewpoint Drive west to the vicinity of Acacia Drive (i.e., Poles 26-37). The land use within and adjacent to the new ROW is characterized as open space, commercial buildings, vacant and undeveloped land, and single-family residential homes.

- **Segment 2:** From its junction with Segment 1 in Carlsbad, Segment 2 proceeds southeast within SDG&E ROW back into and through the City of San Marcos, crossing unincorporated portions of San Diego County (Lake San Marcos area), and ending at Meadowlark Junction in the San Elijo area in San Marcos. In the City of Carlsbad, the General Plan and zoning designation along Segment 2 is Open Space (OS).

  Portions of the Project that include the City of San Marcos are designated as Open Space (OS), Agricultural/Residential (AG), Rural Residential (RR), Light Industrial (LI), Open Space – SPA Limited Use, and the Specific Plan Areas of Rancho Dorado, University Commons, and San Elijo Hills. The City of San Marcos zoning designations along Segment 2 include Open Space (O-S), Agricultural-1 (A-1), Estate (R-1-20), and Light Manufacturing (L-1).

  The San Diego County General Plan designates the area of unincorporated County traversed by Segment 2 as Village Residential. The zoning designations are Rural Residential (RR) and Single-Family Residential (RS).

- **Segment 3:** From Meadowlark Junction in San Marcos, the Segment 3 travels within SDG&E ROW eastward primarily over undeveloped land and then northward, ending at the Escondido Substation. Segment 3 includes the City of San Marcos, City of Escondido, and unincorporated parts of San Diego County. The portion of the Project that crosses the City of San Marcos has the land use designations of Open Space – SPA Limited Use, Open Space (OS), Public/Institutional (PI), and the San Elijo Hills Specific Plan Area. City of San Marcos zoning designations along this portion of Segment 3 include Open Space (O-S) and San Elijo Hills Specific Plan Area.

  Portions of the Project within the City of Escondido are designated as General Industrial, Light Industrial, Industrial Office, Residential Rural II, Residential Estate I, Residential Estate II. City of Escondido zoning designations along this portion of Segment 3 include Industrial Park/Office (I-P-O), Residential Estates (R-E), Industrial Park (I-P), and Specific Plan (S-P).

  In unincorporated San Diego County, the Project crosses areas designated as Rural Lands, Open Space, Neighborhood Commercial, Semi Rural Residential, Village Residential, and Specific Plan. Segment 3 would include the Harmony Grove Specific Plan Area. County

zoning designations along in this area include Rural Residential (RR), Open Space (S80), Agriculture (A70), and Specific Planning Areas (S88).

Two existing auxiliary staging yards would be used for Project purposes. Both are located outside of the primary study area. The Kearny Mesa staging yard is located approximately 25 miles south of the study area within the City of San Diego. The Icon 3PL Material Yard is located approximately 25 to 30 miles southeast of the study area in unincorporated San Diego County and would serve as a potential vendor drop for material and site delivery in Lakeside. Because both of these sites are existing SDG&E staging yards and the Project would not change the land use of either site, neither is discussed further in this section.

3.11.2 Regulatory Setting

Federal

No federal regulations related to land use and planning apply to the Project.

State

California Public Utilities Commission General Order No. 131-D

The CPUC has sole and exclusive jurisdiction over the siting and design of the Project because it authorizes the construction, operation, and maintenance of investor-owned public utility facilities. Although such projects are exempt from local land use and zoning regulations and discretionary permitting (i.e., they would not require discretionary approval from a local decision-making body such as a planning commission, county board of supervisors or city council), General Order No. 131-D, Section XIV.B requires that in locating a project "the public utility shall consult with local agencies regarding land use matters." The public utility would be required to obtain any required non-discretionary local permit (CPUC, 1995).

Local

It is noted that while local jurisdictions are preempted from regulating the Project with respect to land use, the land use plans, policies, and regulations described below are used in the impact analysis to determine whether any actual adverse environmental impact could occur as a result of a conflict with these plans, policies, and regulations.

San Diego County

General Plan

The San Diego County General Plan Land Use Element provides a framework for managing future development of the existing character of the current communities and sensitive natural resources in the County. In order to maximize the effectiveness of the existing infrastructure, the Land Use Element encourages development in the existing unincorporated communities. General Plan Land Use Designations in San Diego County are described in the Land Use Element of the General Plan (County of San Diego, 2011).

Zoning Ordinance

The San Diego County Zoning Ordinance is the primary mechanism for the implementation of the General Plan's general land use designations; it identifies specific uses and development standards within these land use designations. The zoning ordinance categorizes utility lines and/or poles within the "Essential Services" use type and allows such services without a use permit under the Use Regulations for the following designations: Rural Residential (§2182), Single Family Residential (§2102), Open Space (§2802), Agriculture (§2702), and Specific Planning Areas (§2882).

City of San Marcos

General Plan

The following policies from the Land Use and Community Design Element (LU) and Conservation and Open Space Element (COS) of the City of San Marcos General Plan pertain to electrical facilities (City of San Marcos, 2013):

> ***Policy LU-17.1*:** Coordinate with all communications and utility companies (electrical, gas, telephone, cable, satellite and future utilities) in the provision of services throughout the community and the installation and maintenance of facilities in their respective franchise areas.
>
> ***Policy COS-4.6*:** Promote efficient use of energy and conservation of available resources in the design, construction, maintenance and operation of public and private facilities, infrastructure and equipment.
>
> ***Policy COS-4.8*:** Encourage and support the generation, transmission and use of renewable energy.

Zoning Ordinance

The purpose of the San Marcos Zoning Ordinance is to protect and promote the public health, safety, comfort, convenience, and general welfare of the San Marcos community; to implement the policies of the general plan; and to provide the physical, environmental, economic, and social advantages that result from the orderly planned use of land resources. The general provisions chapter of the zoning ordinance indicates that "The provision of this Zoning Ordinance shall not be construed to limit or interfere with the installation, maintenance, or operation of…electric, telephone, or telegraph transmission lines when installed, maintained, and operated in accordance with all other applicable laws" (§20.100.040).

City of Carlsbad

General Plan

The City of Carlsbad General Plan Chapter 2, Land Use & Community Design, and Chapter 4, Open Space, Conservation and Recreation, contain the following goals and policies relating to public facilities and utility infrastructure (City of Carlsbad, 2015):

> **Goal 2-G.21:** Ensure that adequate public facilities and services are provided in a timely manner to preserve the quality of life of residents.

***Policy 4-P.5*:** Require compliance with the Growth Management Plan open space performance standard specified in the Citywide Facilities and Improvements Plan, and maintain appropriate criteria, standards, and classifications. The following open space areas shall not be utilized to meet the open space performance standard:

d. Power line easements, except where the land within the easement is identified by the OSCRMP [Open Space and Conservation Resource Management Plan] as an open space priority, such as a trail or greenway, and the granting of the open space credit will not adversely impact the city's ability to achieve all of the open space priorities identified for the LFMZ [Local Facility Management Zones] by the OSCRMP. Major power line easements that provide key links to the Carlsbad trail system shall receive credit toward the open space performance standard.

Zoning Code

Chapter 21.53 (Uses Generally) of the City of Carlsbad Zoning Code states, "The provisions of this title shall not be construed to limit or interfere with the installation, maintenance and operation of…electric or telephone transmission lines, or railroads, when located in accordance with the applicable rules and regulations of the public utilities commission of the State of California within rights-of-way, easements, franchises or ownerships of such public utilities" (§21.53.080).

City of Vista

General Plan

The City of Vista General Plan, Land Use and Community Identity Element contains the following policies that pertain to electric transmission facilities (City of Vista, 2014).

***LUCI Policy 1.6*:** Encourage undergrounding of utilities, and discourage new electric and communications lines to be added to existing aboveground utility systems.

***LUCI Policy 3.1*:** Require all new development to be designed to minimize impacts to adjoining residential neighborhoods.

Vista Business Park Specific Plan

Zoning within the portion of the Project within the City of Vista is governed by the Vista Business Park Specific Plan (City of Vista, 1993). The specific plan contains requirements to install electrical conductor facilities underground, but exempts high voltage lines and substations from this requirement.

City of Escondido

General Plan

The City of Escondido General Plan Mobility and Infrastructure Element contains one policy relevant to the provision of electrical utilities (City of Escondido, 2012).

***Policy 16.2*:** Continue to work with local utility providers to ensure that adequate electricity and natural gas services and facilities are available for new and existing development.

Zoning Code

The Zoning Code establishes land uses and regulates buildings and use within designated zones in order to preserve the public health, safety, comfort, convenience, and general welfare of the City of Escondido. The zoning code allows utility facilities under the Residential Estates (§33-94) use regulations with a conditional use permit. However, the Project would not be subject to local use permits. The zoning code lists utilities as a permitted use under the Industrial-Office designation, but not the Industrial Park designation (§33-564), and does not list transmission facilities as a permitted use.

3.11.3 Applicant Proposed Measures

No Applicant Proposed Measures (APMs) have been proposed to address Project impacts relevant to land use and planning.

3.11.4 Environmental Impacts

Discussion

a) Physically divide an established community: *NO IMPACT*.

The Project alignment would include some residential areas; however, the rebuild, new build, and reconductoring/re-energizing components of the Project would be located within the same ROW as existing similar infrastructure and structures in each residential area affected. Thus, the Project would not create a new physical barrier that would divide existing communities and there would be no impact.

The 1.2 acres of additional ROW required for Segment 1 along and south of San Marcos Boulevard would widen the ROW by approximately 10 feet to a total of 20 feet in some residential areas (see Appendix Route Map Figure A-4 through A-6). However, the portions of the Project that would be located within this widened ROW would consist of replacement of existing poles and would not establish a new physical barrier that would divide an established community. There would be no impact.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect: *NO IMPACT.*

The new Proposed Updates to the CEQA Guidelines submitted by the Governor's Office of Planning and Research requires analysis of "significant environmental impacts due to conflicts with any plans and policies adopted for the purpose of avoiding or mitigating an environmental effect" (OPR, 2017). There are numerous plans, policies, and regulations that either are implicated by relevant Appendix G checklist questions or were adopted for the purpose of avoiding or mitigating and environmental effect and, thus, are evaluated under the appropriate resource-specific section of this IS/MND. As an example, Section 3.4, *Biological Resources*, evaluates whether the Project would conflict with the provisions of an adopted Habitat Conservation Plan or similar plan. Thus, environmental impacts that would occur due to conflicts

with plans, policies, and regulations are discussed in each appropriate topical section of this IS/MND. Provided below is a discussion and analysis of environmental impacts specifically related to any conflict within a land use plan, policy, or regulation within the study area.

San Diego County. The Project would be consistent with the zoning ordinance because as discussed in Section 3.11.2, the ordinance allows "essential services," including utility lines, within all zones through which the Project would pass. Because the zoning ordinance implements the General Plan land use designations and policies, the Project would be consistent with the General Plan and would avoid any significant environmental impact due to a conflict with any land use plan, policy, or regulation in San Diego County.

City of San Marcos. The Project would be consistent with the zoning ordinance's provision that allows electric transmission lines "when installed, maintained, and operated in accordance with all other applicable laws." Because the zoning ordinance implements the General Plan land use designations and policies, the Project also would be consistent with the General Plan and would avoid any significant environmental impact due to a conflict with any land use plan, policy, or regulation in the City of San Marcos.

City of Carlsbad. The Project would be consistent with the zoning ordinance's provision that allows electric transmission lines "when located in accordance with the applicable rules and regulations of the public utilities commission of the State of California within rights-of-way, easements, franchises or ownerships of such public utilities." Because the zoning ordinance implements the General Plan land use designations and policies, the Project also would be consistent with the General Plan and would avoid any significant environmental impact due to a conflict with any land use plan, policy, or regulation in the City of Carlsbad.

City of Vista. The Project would be consistent with the City of Vista General Plan since implementation of the Project would include overhead work on existing poles or removal of poles and would not introduce new electric transmission lines within the City of Vista. Therefore, no new developments would be included in the City of Vista and there would be no need to minimize impacts to adjoining residential neighborhoods, as discussed in LUCI Policy 3.1. The Project would also be consistent with LUCI Policy 1.6 with the removal of new electric and communications lines, while discouraging additions to existing aboveground utility systems. No restrictions in the Vista Business Park Specific Plan would apply to the Project; therefore, no conflict with this plan would occur.

City of Escondido. The Project would be consistent with the City of Escondido General Plan, which encourages the provision of adequate electricity facilities. Although the City of Escondido Zoning Code does not specifically permit or conditionally permit electric transmission facilities within all applicable zones, it does not disallow such use or identify any environmental impacts that would occur as a result of the placement of an electric transmission facility within any particular zone.

The Project would not conflict with the above-listed general plans, zoning ordinances, and municipal codes. Therefore, no impact would occur.

3.11.5 References

California Public Utilities Commission, 1995. General Order No. 131-d. Available online at http://docs.cpuc.ca.gov/PUBLISHED/Graphics/589.PDF. Accessed on August 14, 2018.

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City of Vista, 1993. Vista Business Park Specific Plan. Available online at https://records.cityofvista.com/weblink/DocView.aspx?dbid=0&id=1490819&page=1&cr=1. Accessed on August 8, 2018.

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Governor's Office of Planning and Research (OPR), 2017. Proposed Updates to the CEQA Guidelines. November. Available online at: http://opr.ca.gov/docs/20171127_Comprehensive_CEQA_Guidelines_Package_Nov_2017.pdf. Accessed November, 2018.

SanGIS, 2017. North MSCP. Available online at http://www.sangis.org/. Accessed on August 3, 2018.

3.12 Mineral Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
12. MINERAL RESOURCES — Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

This section describes the existing mineral resources in the study area and evaluates whether Project construction, operation, and maintenance would result in impacts on mineral resources of regional or statewide significance or locally important mineral resource recovery sites. For the purposes of this analysis, the study area is defined as the footprint of all Project components, including all areas of temporary and/or permanent ground disturbance.

3.12.1 Environmental Setting

Mineral Resources

The Project would be located within the Peninsular Ranges, which are made up of Cretaceous-age, intrusive igneous (volcanic) rocks that intruded the Jurassic-age metasedimentary and metavolcanic basement rocks. The igneous and metamorphosed bodies are overlain by Eocene- and Holocene-age sedimentary deposits (Kennedy & Tan, 2007). The topography ranges from flat throughout the urban and suburban areas of Segments 1 and 3 to relatively steep throughout the San Elijo Hills, where Segment 2 and most of Segment 3 would be developed. Due to the types of rocks found in western San Diego County, the area has been continuously studied and evaluated for its aggregate resources (i.e., sand, gravel, and crushed stone) since the 1980s (CGS, 2017a).

The California Department of Conservation, Division of Mine Reclamation (CDC DMR) provides mine location information and reflects information reported by mine owners in annual reports. An interactive map search showed that there were three quarries within a 2-mile radius of the Project alignment, all of which are now closed. San Marcos Quarry, located 1.8 miles from Segment 1, produced sand and gravel until closing in or before 2017. The Ashland Granite Quarry and the Harmony Mine, both located about 0.7 mile from Segment 3, are both reported as closed and reclaimed (restored) as of 1996 and 2012, respectively. (CDC DMR, 2018)

Additionally, the California Geological Survey (CGS) maps and regulates the locations of potential mineral resources in California. In order to protect these potential mineral resources, the CGS has classified the regional significance of mineral resources into Mineral Resource Zones (MRZs) and mapped them. Descriptions of the MRZ categories are provided in **Table 3.12-1**, below. The Project alignment is located within areas designated MRZ-2, MRZ-3, and MRZ-4 (CGS, 2017b), with a majority of the Project within areas designated MRZ-3. A very small length of Segment 1

(on Discovery Street in San Marcos) is designated MRZ-4 and a small area between Melrose Drive and of MRZ-2 exists just south of Lake San Marcos.

TABLE 3.12-1
CALIFORNIA MINERAL LAND CLASSIFICATION SYSTEM

Mineral Resource Zone Category	Category Description
MRZ-1	Areas where available geologic information indicates that little likelihood exists for the presence of significant mineral resources
MRZ-2	Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists
MRZ-3	Areas containing known or inferred mineral occurrences of undetermined mineral resource significance
MRZ-4	Areas where available information is inadequate to assign to any other MRZ category

SOURCE: CGS, 2017a

There are no locally important mineral resource recovery sites delineated in local general plans, specific plans, or zoning. San Diego County has a use regulation that is intended to identify and preserve areas with valuable mineral deposits until extraction can take place (S82); however, the Project would not cross any lands subject to this use regulation.

Oil, Gas, and Geothermal Resources

The California Division of Oil, Gas, and Geothermal Resources (DOGGR) oversees the drilling, operation, maintenance, and plugging and abandonment of oil, natural gas, and geothermal wells in California, and tracks every known oil and gas field in the state. Maps maintained by DOGGR indicate that there are two active sites near the study area. An oil and gas field operated by Davenport Oil & Gas Development Co. is located approximately 2 miles from Segment 1 and another operated by Stanley S. Turner is approximately 1.6 miles from Segment 3 (DOGGR, 2018).

3.12.2 Regulatory Setting

Federal

No federal regulations apply to mineral resources within the study area.

State

Surface Mining and Reclamation Act

The Surface Mining and Reclamation Act of 1975 (SMARA) (Public Resources Code §§ 2710-2796) and its implementing regulations (14 Cal. Code Regs. § 3500 et seq.) establish a comprehensive state policy for the conduct of surface mining operations and for the reclamation of mined lands to a usable condition that is readily adaptable for alternative land uses. SMARA encourages the production, conservation, and protection of the state's mineral resources and recognizes that "the state's mineral resources are vital, finite, and important natural resources and

the responsible protection and development of these mineral resources is vital to a sustainable California" (Pub. Res. Code § 2711). Under SMARA, the term "minerals" includes "any naturally occurring chemical element or compound, or groups of elements and compounds, formed from inorganic processes and organic substances, including, but not limited to, coal, peat, and bituminous rock, but excluding geothermal resources, natural gas, and petroleum" (14 Cal. Code Regs. § 3501). SMARA directs the State Geologist to classify the regional or statewide significance of areas containing mineral deposits based solely of geologic factors, and without regard to existing land use and land ownership. The State Geologist provides these classifications (MRZs) to local jurisdictions which must then establish general plan mineral resource management policies that assist in the management of land use that affects access to areas of statewide and regional significance and emphasize the conservation and development of identified mineral deposits.

Local

The City of Escondido General Plan (2012), City of Vista General Plan 2030 (2012), and City of Carlsbad General Plan (2015) do not identify any goals or policies related to mineral resources (City of Escondido, 2012; City of Vista, 2012; City of Carlsbad, 2015).

San Diego County General Plan

San Diego County generally recognizes mineral resources as essential to community development and economic prosperity. The Conservation and Open Space Element within the County's General Plan outlines goals and policies intended to conserve and develop identified mineral deposits consistent with SMARA requirements (San Diego County, 2011).

> **Goal COS-10: Protection of Mineral Resources.** The long-term production of mineral materials adequate to meet the local County average annual demand, while maintaining permitted reserves equivalent to a 50-year supply, using operational techniques and site reclamation methods consistent with SMARA standards such that adverse effects on surrounding land uses, public health, and the environment are minimized.
>
> > ***Policy COS-10.1: Siting of Development.*** Encourage the conservation (i.e., protection from incompatible land uses) of areas designated as having substantial potential for mineral extraction. Discourage development that would substantially preclude the future development of mining facilities in these areas. Design development or uses to minimize the potential conflict with existing or potential future mining facilities.
> >
> > ***Policy COS-10.2 Protection of State-Classified or Designated Lands.*** Discourage development or the establishment of other incompatible land uses on or adjacent to areas classified or designated by the State of California as having important mineral resources (MRZ-2), as well as potential mineral lands identified by other government agencies. The potential for the extraction of substantial mineral resources from lands classified by the State of California as areas that contain mineral resources (MRZ-3) shall be considered by the County in making land use decisions.
> >
> > ***Policy COS-10.3 Road Access.*** Prohibit development from restricting road access to existing mining facilities, areas classified MRZ-2 or MRZ-3 by the State Geologist, or areas identified in the County Zoning Ordinance for potential extractive use in accordance with SMARA Section 2764.a.

City of San Marcos General Plan

The City of San Marcos recognizes mineral resources as essential to community development and economic prosperity. The Conservation and Open Space Element within the City's General Plan outlines the following goals and policies related to mineral resources (City of San Marcos, 2012).

> **Goal COS-2:** The City is committed to conserving, protecting, and maintaining open space, agricultural, and limited resources for future generations. By working with property owners, local organizations, and state and federal agencies, the City can limit the conversion of resource lands to urban uses.
>
> > ***Policy COS-2.4*:** Ensure compliance with State of California requirements for mineral resources contained in the State Surface Mining and Reclamation Act.

3.12.3 Applicant Proposed Measures

No Applicant Proposed Measures (APMs) have been proposed to address Project impacts on mineral resources.

3.12.4 Environmental Impacts

Discussion

a) Whether the Project would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state: *LESS THAN SIGNIFICANT IMPACT.*

There are no active mines within 2 miles of the Project alignment. The study area is almost entirely located with an MRZ-3 classification (minerals of undetermined significance), with a small portion of Segment 1 located in MRZ-4 (inadequate information). Approximately 0.5 mile of Segment 2 is directly adjacent to a MRZ-2 (significant mineral deposits are or are likely to be present). As described in Section 3.12.2, San Diego County General Plan Policy COS-10.2 discourages development in areas on or adjacent to areas designated as MRZ-2. While Segment 2 includes the installation of new poles and the replacement of existing poles, Project construction and operation would not result in the loss of availability of these resources because work would be conducted in SDG&E's existing right-of-way, an area already unavailable for mineral resource extraction. In addition, San Diego County General Plan Policy COS-10.3 prohibits development from restricting road access to existing mining facilities and areas designated as either MRZ-2 or MRZ-3. However, construction and operation would not affect road access to the MRZ-2 or MRZ-3 areas because the Project would not block access to these areas or otherwise alter public facilities supporting potential mining operations. While the Project would be constructed in areas mapped as having known mineral resources, the availability of these resources would not substantially change as a result of the Project; therefore, the impact would be less than significant.

b) Whether the Project would result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan: *NO IMPACT.*

As discussed in Section 3.12.1, *Environmental Setting*, there are no locally important mineral resource recovery sites delineated on any local land use plans. The Project, therefore, would have no impact.

3.12.5 References

California Department of Conservation, Division of Mine Reclamation (CDC DMR), 2018. Mines Online Interactive Map. Available online at: http://maps.conservation.ca.gov/mol/index.html. Accessed October 29, 2018.

California Geological Survey (CGS), 2017a. Special Report 240. Update of Mineral Land Classification: Portland Cement Concrete-Grade Aggregate in the Western San Diego County Production-Consumption Region, California.

CGS, 2017b. Updated Mineral Land Classification Map for Portland Cement Concrete-Grande Aggregate in the Western San Diego County Production-Consumption Region, California. California Geological Survey. Map. Scale 1:125,000.

City of Carlsbad, 2015. Carlsbad General Plan – Open Space, Conservation, and Recreation.

City of Escondido, 2012. City of Escondido General Plan - Chapter VII—Resource Conservation.

City of San Marcos, 2012. City of San Marcos General Plan – Conservation and Open Space Element.

City of Vista, 2012. Vista General Plan 2030 – Resource Conservation and Sustainability Element.

County of San Diego, 2011. San Diego County General Plan – Conservation and Open Space Element.

Division of Oil, Gas, and Geothermal Resources (DOGGR), 2018. Division of Oil, Gas, and Geothermal Resources Well Finder Application. Accessed on July 6, 2018.

Kennedy, Michael P., and Siang S. Tan, 2007. Geological Map of the Oceanside 30’ x 60’ Quadrangle, California. California Geological Survey. Map. Scale 1:100,000.

3.13 Noise

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
13. NOISE — Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☒	☐	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

This section evaluates potential impacts associated with noise levels from Project construction, operation, and maintenance. For the purpose of this analysis, the study area is defined as the area surrounding the Project where Project construction and operational noise may be heard.

3.13.1 Environmental Setting

Noise Background

Sound is energy transmitted by pressure waves through a medium such as air. Noise can be defined as unwanted sound. Sound is characterized by various parameters that include the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level has become the most common descriptor used to characterize the loudness of an ambient sound level. Sound pressure level is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude (sound power). When all the audible frequencies of a sound are measured, a sound spectrum is plotted consisting of a range of frequency spanning 20 to 20,000 Hz. The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the sound frequency/sound power level spectrum.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, when assessing potential Noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to low and extremely high frequencies instead of the frequency mid-range. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA).

Noise Exposure and Ambient Noise

An individual's noise exposure is a measure of the noise experienced by the individual over a period of time. A noise level is a measure of noise at a given instant in time. However, noise levels rarely persist consistently over a long period of time. In fact, ambient noise varies continuously with time with respect to the contributing sound sources of the ambient noise environment. Ambient noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with the individual contributors unidentifiable. Background noise levels change throughout a typical day, but do so gradually, corresponding with the addition and subtraction of distant noise sources and atmospheric conditions. The addition of short duration single event noise sources (e.g., helicopter and other aircraft flyovers, horns, sirens) makes ambient noise constantly variable throughout a day.

These successive additions of sound to the ambient noise environment vary the ambient noise level from instant to instant requiring the measurement of noise exposure over a period of time to legitimately characterize an ambient noise environment and evaluate cumulative noise impacts. This time-varying characteristic of environmental noise is described using statistical noise descriptors. Noise descriptors discussed in this analysis are summarized below:

L_{eq}: The equivalent sound level is used to describe noise over a specified period of time, in terms of a single numerical value. The L_{eq} is the constant sound level which would contain the same acoustic energy as the varying sound level, during the same time period (i.e., the average noise exposure level for the given time period).

L_{dn}: The day-night noise level (L_{dn}) or the energy average of the A-weighted sound levels occurring during a 24-hour period and which accounts for the greater sensitivity of most people to nighttime noise by weighting noise levels at night ("penalizing" nighttime noises). Noise between 10:00 p.m. and 7:00 a.m. is weighted (penalized) by adding 10 dBA to take into account the greater annoyance of nighttime noises.

L_{max}: The instantaneous maximum noise level measured during the measurement period of interest.

CNEL: The Community Noise Equivalent Level (CNEL) is a 24-hour L_{eq} that adds a 5 dB penalty to noise occurring during evening hours from 7:00 p.m. to 10:00 p.m., and a 10 dB penalty to sounds occurring between the hours of 10:00 p.m. to 7:00 a.m. to account for the increased sensitivity to noise events that occur during the quiet late evening and nighttime periods.

Effects of Noise on People

There is no universally acceptable way to measure the subjective effects of noise, or the corresponding reactions of annoyance, break in concentration (e.g., student's ability to study) and dissatisfaction. A wide variation exists in the individual thresholds of annoyance and different tolerances to noise tend to develop based on an individual's past experiences with noise. Thus, an important way of predicting a human reaction to a new noise environment is the way the new noise compares to the existing noise levels to which one has adapted: the so called "ambient noise" level. In general, the more a new noise exceeds the previously existing ambient noise

level, the less acceptable the new noise would be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1 dB generally cannot be perceived;
- Outside of the laboratory, a 3 dB change is considered a just-perceivable difference when the change in noise is perceived but does not cause a human response;
- A change in level of at least 5 dB is required before any noticeable change in human response would be expected; and
- A 10 dB change is subjectively heard as approximately a doubling in loudness and can cause an adverse response.

These relationships occur in part because of the logarithmic nature of sound and the decibel system. A ruler is a linear scale: it has marks on it corresponding to equal quantities of distance. One way of expressing this is to say that the ratio of successive intervals is equal to one. A logarithmic scale is different in that the ratio of successive intervals is not equal to one. Each interval on a logarithmic scale is some common factor larger than the previous interval. A typical ratio is 10, so that the marks on the scale read: 1, 10, 100, 1,000, 10,000, etc., doubling the variable plotted on the x-axis. The human ear perceives sound in a non-linear fashion; hence, the decibel scale was developed. Because the decibel scale is based on logarithms, two noise sources do not combine in a simple additive fashion, rather they combine logarithmically. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA. However, where ambient noise levels are high in comparison to a new noise source, there would be a small change in noise levels. For example, when 70 dBA ambient noise levels are combined with a 60 dBA noise sources, the resulting noise level equals 70.4 dBA.

Nighttime noise can potentially affect sleep. According to a study conducted by the United States Air Force Research laboratory, noise can make it difficult to fall asleep, can create momentary disturbances of natural sleep patterns by causing shifts from deep to lighter stages, and can cause awakening (Fidell et al., 2010). Although nighttime awakenings occur independent of noise, the study provided the following summary of night awakenings: “Depending on the definition adopted for ‘awakening,’ people may awaken for reasons having nothing to do with noise many times per night, at moments which may or may not closely coincide in time with the occurrence of noise events.” In addition, based on the study, “people exhibit an average of 21 electro physiologically detectable arousals per hour of sleep, or about 144 spontaneous arousals per night.” Counting both shifts from deeper to lighter sleep states and momentary awakenings, the study reported about 45 “awakenings or arousals” per night, of which only 40 percent were thought to represent even momentary awakenings. People commonly attain full waking consciousness two or three times per night for reasons having nothing to do with noise exposure (Fidell et al., 2010).

Health effects from noise have been studied around the world for nearly 30 years. Scientists have attempted to determine if high noise levels can adversely affect human health apart from auditory

damage. These research efforts have covered a broad range of potential impacts from cardiovascular response from fetal weight to mortality. While a relationship between noise and health effects seems plausible, it has yet to be convincingly demonstrated—that is, shown in a manner that can be repeated by other researchers while yielding similar results. In a review of 30 studies conducted worldwide between 1993 and 1998, a team of international researchers concluded that, while some findings suggest that noise can affect health, improved research concepts and methods are needed to verify or discredit such a relationship. The team of international researchers called for more study of the numerous environmental and behavioral factors than can confound, mediate, or moderate survey findings. Until science refines the research process, a direct link between a single source noise exposure and non-auditory health effects remains to be demonstrated. (Lercher et al., 1998)

Noise Attenuation

Sound level naturally decreases (attenuates) with more distance from the source. This basic attenuation rate is referred to as the *geometric spreading loss*. The basic rate of geometric spreading loss depends on whether a given noise source can be characterized as a point source or a line source. Point sources of noise, including stationary mobile sources such as idling vehicles or on-site construction equipment, attenuate at a rate of 6 dB per doubling of distance from the source. In many cases, noise attenuation from a point source increases to 7.5 dB for each doubling of distance due to ground absorption and reflective wave canceling. These factors are collectively referred to as *excess ground attenuation.* The basic geometric spreading loss rate is used where the ground surface between a noise source and a receiver is reflective, such as parking lots or a smooth body of water. The excess ground attenuation rate (7.5 dB per doubling of distance) is used where the ground surface is absorptive, such as soft dirt, grass, or scattered bushes and trees.

Widely distributed noises such as a street with moving vehicles (a “line” source) typically would attenuate at a lower rate of approximately 3 dB for each doubling of distance between the source and the receiver. If the ground surface between source and receiver is absorptive rather than reflective, the nominal rate increases to 4.5 dB for each doubling of distance. Atmospheric effects, such as wind and temperature gradients, can also influence noise attenuation rates from both line and point sources of noise. However, unlike ground attenuation, atmospheric effects are constantly changing and difficult to predict.

Trees and vegetation, buildings, and barriers reduce the noise level that would otherwise occur at a given receptor distance. However, for a vegetative strip to have a noticeable effect on noise levels, it must be dense and wide. For example, a stand of trees must be at least 100 feet wide and dense enough to completely obstruct a visual path to the roadway to attenuate traffic noise by 5 dB (Caltrans, 2013). A row of structures can shield more distant receivers depending upon the size and spacing of the intervening structures and site geometry. Similar to vegetative strips discussed above, noise barriers, which include natural topography and sound walls, reduce noise by blocking the line of sight between the source and receiver. Generally, a noise barrier that breaks the line of sight between source and receiver will provide at least a 5 dB reduction in noise.

Noise-Sensitive Receptors

Human response to noise varies considerably from one individual to another. Effects of noise at various levels can include interference with sleep, concentration, and communication, and can cause physiological and psychological stress and hearing loss. Given these effects, some land uses are considered more sensitive to ambient noise levels than others. In general, residences, schools, hospitals, and nursing homes are considered to be the most sensitive to noise. Places such as churches, libraries, and cemeteries, where people tend to pray, study, and/or contemplate are also sensitive to noise. Commercial and industrial uses are considered the least noise-sensitive.

The Project components would traverse the jurisdictions of Carlsbad, San Marcos, Vista, and Escondido, and unincorporated San Diego County. The area in the vicinity of the Project consists of residential, institutional, parks, industrial, and commercial land uses. The San Marcos Substation is located in an area surrounded by single-family residences, the nearest of which are approximately 20 feet from the property boundary. The Escondido Substation is located in an area surrounded by industrial uses. The nearest residences are located approximately 875 feet east of the property boundary.

Sensitive receptors adjacent to Segment 1 include single-family residences, High Tech High North County (a high school) and San Marcos High School. The closest single-family residence is located approximately 30 feet from construction areas along Segment 1. High Tech High North County is located 260 feet from onsite construction areas along Segment 1 and occupied portions of San Marcos High School are located approximately 220 feet from onsite construction areas along Segment 1. Sensitive receptors adjacent to Segment 2 consist of clusters of single-family residences. The closest single-family residence is located approximately 30 feet from construction areas along Segment 2. Sensitive receptors adjacent to Segment 3 also consist of clusters of single-family residences. The closest single-family residence is located approximately 35 feet from construction areas along Segment 3.

The summaries of sensitive receptors provided below are not intended to list every specific individual sensitive receptor, but are intended to provide an overview of the types of uses in the vicinity of the Project. As noted below, the noise measurement locations in Tables 3.13-1 and 3.13-2 are considered representative of other sensitive receptors located throughout the vicinity of the Project site. Potential noise and vibration impacts on wildlife are addressed in Section 3.4, *Biological Resources*.

Existing Noise Environment

The built noise environment in the vicinity of the Project area is characterized by urban roadways, and residential, industrial, and commercial uses. A baseline noise survey to characterize ambient noise levels in the Project area was conducted from March 31 through April 3, 2017 in the vicinity of the San Marcos Substation and Escondido Substation and along the Project alignment. The result of these 24-hour long-term and 30-minute short-term noise measurements are presented in **Table 3.13-1** and **Table 3.12-2**, respectively. The measurement locations are shown in **Figure 3.13-1**. During the short-term noise surveys, it was noted that the dominant ambient

noise sources in the vicinity of the Project were primarily attributed to vehicular traffic noise along San Marcos Boulevard, South Rancho Santa Fe Road, San Elijo Road, Country Club Drive, Citracado Parkway, and Auto Park Way. Vehicular traffic noise was measured to be as high as 68.7 dBA L_{eq}. Additional sources include distant propeller aircraft, commercial shopping plazas, outdoor uses at several schools, and distant traffic on State Route 78 and Interstate 15.

TABLE 3.13-1
24-HOUR LONG-TERM AMBIENT NOISE MEASUREMENTS

Site	Start Date and Time	L_{dn} (dBA)
LT-1 (approximately 220 feet east of the intersection of Calle Venado and Via Allondra)	March 31, 2017 10:00 a.m.	57.1
	April 1, 2017 10:00 a.m.	56.5
	April 2, 2017 10:00 a.m.	55.8
LT-2 (approximately 300 feet east of the intersection of Harmony Heights Rd. and County Club Dr.)	March 31, 2017 10:00 a.m.	57
	April 1, 2017 10:00 a.m.	55.2
	April 2, 2017 10:00 a.m.	54.1

SOURCE: SDG&E, 2017

Vibration

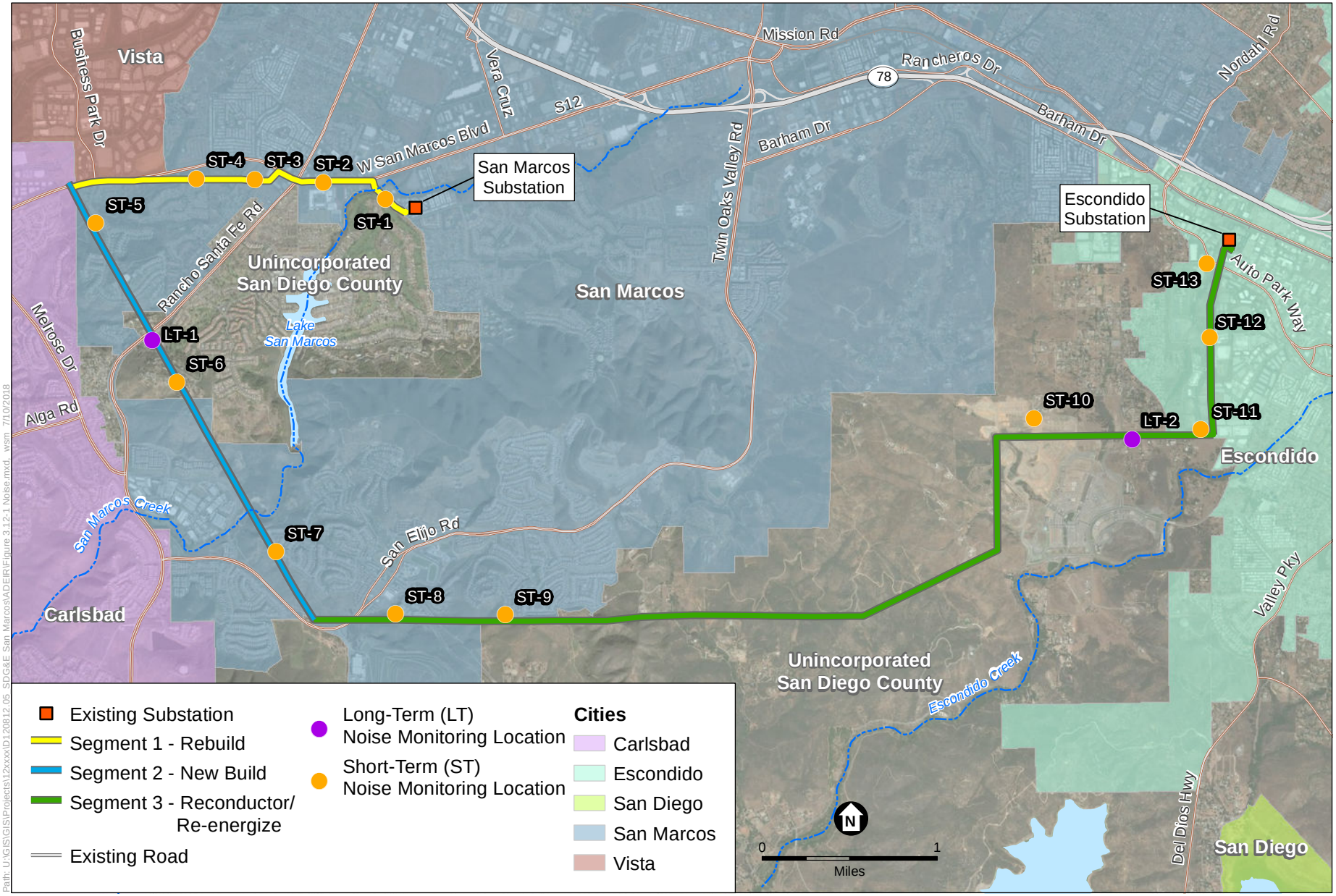
Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal and is typically expressed in units of inches per second (in/sec). The PPV is most frequently used to describe vibration impacts on buildings. The root mean square (RMS) amplitude is most frequently used to describe the effect of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (VdB) is commonly used to measure RMS. The decibel notation acts to compress the range of numbers required to describe vibration (FTA, 2006). Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration.

Some common sources of ground-borne vibration are trains, heavy trucks traveling on rough roads, and construction activities such as blasting, pile driving, and operation of heavy earth-moving equipment. The effects of ground-borne vibration include movement of the building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. In extreme cases, vibration can cause damage to buildings. Building damage is not a factor for most projects, with the occasional exception of blasting and pile-driving during construction.

TABLE 3.13-2
30-MINUTE SHORT-TERM AMBIENT NOISE MEASUREMENTS

Site	Start Date and Time	L_{eq} (dBA)	L_{max} (dBA)	L_{min} (dBA)	Noise Sources
ST-1 (approximately 85 feet south of the intersection of San Pablo Drive and Discovery Street)	April 3, 2017 9:35 a.m.	63.3	80.5	50.1	Local traffic, school yard, golf carts, landscaping
ST-2 (approximately 305 feet west of the intersection of San Marcos Boulevard and Knights Realm)	April 3, 2017 10:37 a.m.	68.7	90.7	56.4	Local traffic, large parking lot, school yards
ST-3 (approximately 545 feet south of the intersection of San Marcos Boulevard and Viewpoint Drive, within the Highlands Condominiums)	April 3, 2017 11:25 a.m.	54.2	65.4	48.9	Local traffic, birds
ST-4 (approximately 600 feet south east of the intersection of San Marcos Boulevard and Acacia Drive)	April 3, 2017 12:08 p.m.	56.7	74.3	34.2	Local traffic, birds, leaves rustling
ST-5 (approximately 515 feet north west of the intersection of Sun Valley Road and White Sands Drive)	April 3, 2017 12:57 p.m.	55.1	72.9	38.6	Local traffic birds, distant aircraft
ST-6 (approximately 570 feet west of the intersection of Via Allondra and Via Del Corvo)	April 3, 2017 2:45 p.m.	52.8	74.2	34.4	Distant traffic, birds, leaves rustling, distant aircraft
ST-7 (approximately 120 feet west of the cul-de-sac)	April 3, 2017 3:33 p.m.	51.2	70.1	42.4	Distant aircraft, birds, dogs barking
ST-8 (Copper Creek Apartments)	March 31, 2017 2:49 p.m.	52.2	65.9	30.2	Distant traffic, distant aircraft, birds
ST-9 (Trenton Way cul-de-sac)	March 31, 2017 2:01 p.m.	46.4	65.8	32.8	Distant aircraft, birds, dogs barking, neighborhood landscaping/other maintenance activity
ST-10 (approximately 670 feet south west of the Mt. Whitney Road dead end)	March 31, 2017 1:05 p.m.	47	64.6	35.3	Distant aircraft, birds, leaves rustling, dogs barking
ST-11 (approximately 140 feet south of the intersection of Andreasen Drive and Citracado Parkway)	March 31, 2017 10:47 a.m.	58.6	73.3	45.5	Local traffic, local construction
ST-12 (approximately 290 feet north east of the intersection of Harveson Place and Citracado Parkway)	March 31, 2017 11:29 a.m.	51.9	62.9	43.5	Local traffic, adjacent industry, birds
ST-13 (approximately 240 feet west of the intersection of Auto Parkway and Citracado Parkway)	March 31, 2017 12:13 p.m.	60.2	80.7	47.9	Local traffic, nearby water feature

SOURCE: SDG&E, 2017



Path: U:\GIS\GIS\Projects\12xxxx\D120812_05_SDG&E San Marcos\ADEIR\Figure 3.12-1 Noise.mxd wsm 7/10/2018

SOURCE: SDGE, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.13-1

Noise Measurement Locations

ESA

3.13.2 Regulatory Setting

Federal, State, and local agencies regulate different aspects of environmental noise. Federal and State agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, and are not directly relevant to this environmental review, while regulation of stationary sources and development of land use noise compatibility policy is left to local agencies. There are no specific federal or State noise regulations that are applicable to the Project. Local regulation of noise involves implementation of General Plan policies and noise ordinance standards. Local General Plans tend to identify general principles intended to guide and influence development plans; local noise ordinances and codes establish standards and procedures for addressing specific operational noise sources and activities.

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order (GO) 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." It is noted that while local jurisdictions are preempted from regulating the Project with respect to noise limits, the noise limits related to sensitive receptors that have been established by local jurisdictions including the City of Escondido, City of Vista, and County of San Diego are used in the impact analysis to determine the significance of short-term daytime and nighttime construction noise levels relative to the potential to cause a substantial temporary increase in ambient noise levels in the Project vicinity above levels existing without the Project. Therefore, these noise limits are discussed below.

Local

San Diego County

The County of San Diego General Plan's Noise Element contains policies that define maximum allowable exterior noise level standards for transportation and non-transportation noise sources (County of San Diego, 2011). The following noise and vibration-related policies are identified in the Noise Element of the County of San Diego General Plan.

> **Policy N-1.1: Noise Compatibility Guidelines.** Use the Noise Compatibility Guidelines (Table N-1) [shown here as **Table 3.13-3**] and the Noise Standards (Table N-2) [shown here as Table 3.13-3] as a guide in determining the acceptability of exterior and interior noise for proposed land uses.
>
> **Policy N-3.1: Groundborne Vibration.** Use the Federal Transit Administration and Federal Railroad Administration guidelines, where appropriate, to limit the extent of exposure that sensitive uses may have to groundborne vibration from trains, construction equipment, and other sources.
>
> **Policy N-6.2: Recurring Intermittent Noise.** Minimize impacts from noise in areas where recurring intermittent noise may not exceed the noise standards listed in Table N-2 [shown here as **Table 3.13-4**], but can have other adverse effects.

Policy N-6.4: Hours of Construction. Require development to limit the hours of operation as appropriate for non-emergency construction and maintenance, trash collection, and parking lot sweeper activity near noise sensitive land uses.

TABLE 3.13-3
COUNTY OF SAN DIEGO NOISE COMPATIBILITY GUIDELINES

Land Use	Community Noise Exposure - CNEL (dBA)													
	50		55		60		65		70		75		80	
A. Residential—single family residences, mobile homes, senior housing, convalescent homes														
B. Residential—multi-family residences, mixed-use (commercial/ residential)														
C. Transient lodging—motels, hotels, resorts														
D. Schools, churches, hospitals, nursing homes, child care facilities														
E. Passive recreational parks, nature preserves, contemplative spaces, cemeteries														
F. Active parks, golf courses, athletic fields, outdoor spectator sports, water recreation														
G. Office\professional, government, medical\dental, commercial, retail, laboratories														
H. Industrial, manufacturing, utilities, agriculture, mining, stables, ranching, warehouse, maintenance/repair														

☐ ACCEPTABLE—Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal construction, without any special noise insulation requirements.

☐ CONDITIONALLY ACCEPTABLE—New construction or development should be undertaken only after a detailed noise analysis is conducted to determine if noise reduction measures are necessary to achieve acceptable levels for land use. Criteria for determining exterior and interior noise levels are listed in Table 3.13-3, Noise Standards. If a project cannot mitigate noise to a level deemed acceptable, the appropriate county decision-maker must determine that mitigation has been provided to the greatest extent practicable or that extraordinary circumstances exist.

■ UNACCEPTABLE—New construction or development shall not be undertaken.

SOURCE: County of San Diego, 2011

TABLE 3.13-4
COUNTY OF SAN DIEGO NOISE COMPATIBILITY GUIDELINES

1.	The exterior noise level (as defined in Item 3) standard for Category A shall be 60 CNEL, and the interior noise level standard for indoor habitable rooms shall be 45 CNEL.
2.	The exterior noise level standard for Categories B and C shall be 65 CNEL, and the interior noise level standard for indoor habitable rooms shall be 45 CNEL.
3.	The exterior noise level standard for Categories D and G shall be 65 CNEL and the interior noise level standard shall be 50 dBA L_{eq} (one-hour average).
4.	For single-family detached dwelling units, "exterior noise level" is defined as the noise level measured at an outdoor living area which adjoins and is on the same lot as the dwelling, and which contains at least the following minimum net lot area: (i) for lots less than 4,000 square feet in area, the exterior area shall include 400 square feet, (ii) for lots between 4,000 square feet to 10 acres in area, the exterior area shall include 10 percent of the lot area; (iii) for lots over 10 acres in area, the exterior area shall include 1 acre.
5.	For all other residential land uses, "exterior noise level" is defined as noise measured at exterior areas which are provided for private or group usable open space purposes. "Private Usable Open Space" is defined as usable open space intended for use of occupants of one dwelling unit, normally including yards, decks, and balconies. When the noise limit for Private Usable Open Space cannot be met, then a Group Usable Open Space that meets the exterior noise level standard shall be provided. "Group Usable Open Space" is defined as usable open space intended for common use by occupants of a development, either privately owned and maintained or dedicated to a public agency, normally including swimming pools, recreation courts, patios, open landscaped areas, and greenbelts with pedestrian walkways and equestrian and bicycle trails, but not including off-street parking and loading areas or driveways.
6.	For non-residential noise sensitive land uses, exterior noise level is defined as noise measured at the exterior area provided for public use.
7.	For noise sensitive land uses where people normally do not sleep at night, the exterior and interior noise standard may be measured using either CNEL or the one-hour average noise level determined at the loudest hour during the period when the facility is normally occupied.
8.	The exterior noise standard does not apply for land uses where no exterior use area is proposed or necessary, such as a library.
9.	For Categories E and F the exterior noise level standard shall not exceed the limit defined as "Acceptable" in Table N-1 (see Table 3.12-2) or an equivalent one-hour noise standard.

SOURCE: County of San Diego, 2011

The County's noise ordinance is contained in the County's Municipal Code, Title 3, Division 6, Chapter 4, Noise Abatement and Control.

Section 36.404: General Sound Level Limits. Restricts any person to cause or allow the creation of any noise, which exceeds the one-hour average sound level limits in Table 36.404 (see **Table 3.13-5**) of the County's noise ordinance as measured at the property line of the property on which the noise is produced or at any location on a property that is receiving the noise.

Section 36.408: Hours of Operation of Construction Equipment. Limits the hours of operation of construction equipment to between 7:00 a.m. to 7:00 p.m. Monday through Saturday.

Section 36.409: Sound Level Limitations on Construction Equipment. Provides sound level limits for construction equipment to not exceed and average sound level of 75 dBA for an eight-hour period, between 7:00 a.m. and 7:00 p.m., when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is being received.

TABLE 3.13-5
COUNTY OF SAN DIEGO SOUND LEVEL LIMITS

Land Use Zone	Time of Day	One-Hour Average Sound Level (dBA)
Residential, Agricultural, and Semi-Rural Zones with a General Plan Land Use Designation Density of Less than 10.9 Dwelling Units per Acre	7:00 a.m. to 7:00 p.m.	50
	7:00 p.m. to 10:00 p.m.	45
Residential, Agricultural, and Semi-Rural Zones with a General Plan Land Use Designation Density of 10.9 or More Dwelling Units per Acre	7:00 a.m. to 7:00 p.m.	55
	7:00 p.m. to 10:00 p.m.	50
Commercial Zones	7:00 a.m. to 7:00 p.m.	60
	7:00 p.m. to 10:00 p.m.	55
Industrial Zones	7:00 a.m. to 7:00 p.m.	70-75[1]

[1] Varies according to exact designation of zone.

SOURCE: County of San Diego Municipal Code, Section 36.404 General Sound Level Limits, Table 36.404

Section 36.410: Sound Level Limitations on Impulsive Noise. Provides sound level limits of impulsive noise generated by construction equipment to those provided in **Table 3.13-6** when measured at the boundary line of the property where the noise source is located or on any occupied prosperity where the noise is received. The impulsive noise limits provided in Table 3.13-6 are for a 25 percent of the minutes in the measurement period.

TABLE 3.13-6
MAXIMUM SOUND LEVEL LIMITS FOR IMPULSIVE NOISE

Occupied Property Use	Impulsive Noise limit (L_{25} dBA)
Residential, village or civic use	82
Agricultural, commercial or industrial use	85

SOURCE: County of San Diego Municipal Code, Table 36.410B

Section 36.423: Variances. As it relates to non-emergency work on a public utility facility, an application for a variance may be made to the county noise control officer, who evaluates the request and determines if a variance will be issued, based on the potential impact the noise may have on each property that would be affected, the value to the community of the work being done, and other factors.

The San Diego County Code Noise limits contained under Chapter 4, Section 36.401 et seq. are not applicable to activities which are preempted by State or federal law. (San Diego County Code Section 36.417(a)(6))

City of Escondido

The City of Escondido General Plan's Noise Element includes policies that define maximum allowable exterior noise level standards single- and multi-family uses (City of Escondido, 2012). Noise Policy 5.2 established a goal of 60 dBA CNEL or less for single-family and 65 dBA CNEL

or less for multi-family housing developments. Where outdoor use is a major consideration (back yards and single family housing developments, and recreation areas in multifamily housing developments).

The City of Escondido noise ordinance is found in the City's Municipal Code, Chapter 17, Article 12 (Noise Abatement and Control).

Section 17-229: Sound Level Limits. Unless a variance has been applied for and granted pursuant to this article, it shall be unlawful for any person to cause or allow the creation of any noise to the extent that the one-hour average sound level, at any point on or beyond the boundaries of the property on which the sound is produced, exceeds the applicable limits set forth in the following table [shown here in **Table 3.13-7**], except that construction noise level limits shall be governed by Section 17-234 of this article.

TABLE 3.13-7
CITY OF ESCONDIDO SOUND LEVEL LIMITS

Location	Time	One-Hour Average Sound Level Limits (dBA)
Residential Zones	7:00 a.m. to 10:00 p.m.	50
	10:00 a.m. to 7:00 a.m.	45
Multi-Residential Zones	7:00 a.m. to 10:00 p.m.	55
	10:00 a.m. to 7:00 a.m.	50
Commercial Zones	7:00 a.m. to 10:00 p.m.	60
	10:00 a.m. to 7:00 a.m.	55
Industrial Zones	Any time	70-75[1]

[1] Varies according to exact designation of zone

SOURCE: City of Escondido Municipal Code. Section 17-229. Sound Level Limits

Section 17-234: Construction Equipment. Except for emergency work, it shall be unlawful for any person, including the City of Escondido, to operate construction equipment as follows:

(a) It shall be unlawful for any person, including the City of Escondido, to operate construction equipment at any construction site, except on Monday through Friday during a week between the hours of 7:00 a.m. and 6:00 p.m. and on Saturdays between the hours of 9:00 a.m. and five 5:00 p.m., and provided that the operation of such construction equipment complies with the requirements of subsection (d) of this section.

(b) It shall be unlawful for any person, including the City of Escondido, to operate construction equipment at any construction site on Sundays and on days designated by the president, governor or city council as public holidays.

(c) No construction equipment or combination of equipment, regardless of age or date of acquisition, shall be operated so as to cause noise in excess of a one-hour average sound level limit of 75 dBA at any time, unless a variance has been obtained in advance from the city manager.

(d) Persons engaged in construction for profit or as a business shall post signs at conspicuous places on a construction site, indicating hours of work as prescribed by this article or authorized by permit and the applicable noise level limits.

The City of Escondido Municipal Code Noise limits contained under Chapter 17, Article 12, are not applicable to activities which are preempted by State or Federal law. (Escondido Municipal Code Section 17-242(c))

City of San Marcos

The City of San Marcos General Plan's Noise Element includes policies related to noise and land use compatibility, transportation related noise, and non-transportation related noise including construction, maintenance, and nuisance noise (City of San Marcos, 2012). The following noise-related policy in the Noise Element of the City of San Marcos General Plan provides numeric standards for noise:

Policy N-1.1: Address the potential for excessive noise levels when making land use planning decisions in accordance with Table 7-3 Land Use Compatibility Noise Standards [see Table 3.13-4].

The City of San Marcos noise ordinance is found in the City's Municipal Code, Chapters 10.24 (Noise) and 20.300.70 (Performance Standards), and contains the following noise standards:

Chapter 10.24.020(b)(9): Erection or demolition of buildings, excluding owner resident additions or remodeling, and the grading and excavation of land including the use of blasting, the start-up and use of heavy equipment such as dump trucks and graders and the use of jack hammers except on week days Monday through Friday between the hours of 7:00 a.m. and 6:00 p.m. and on Saturdays 8:00 a.m. to 5:00 p.m. The City Manager may waive any or all of the provisions of this subsection in cases of urgent necessity, or in the interest of public health and safety. The provisions of this subsection may also be waived or modified pursuant to a Conditional Use Permit or other development entitlement processed and issued in accordance with the applicable City requirements and procedures.

Chapter 20.300.70(F)(2): No person shall create or allow the creation of exterior noise that causes the noise level to exceed the noise standards established by Table 20.300-4 [see Table 3.13-5]. Increases in allowable noise levels listed in Table 20.300-4 may be permitted in accordance with the standards outlined in Table 20.300-5 [shown here as **Table 3.13-8**].

Chapter 20.300.070(F): Increases in allowable noise levels listed in Table 20.300-5 may be permitted in accordance with the standards outlined in Table 20.300-5.

The City of San Marcos Municipal Code Noise limits contained under Chapter 17, Article 12, are not applicable to activities which are preempted by State law. (San Marcos Municipal Code Section 10.24.040.)

TABLE 3.13-8
CITY OF SAN MARCOS SOUND LEVEL LIMITS

Location	Time	One-Hour Average Sound Level Limits (dBA)	L_{25}	$L_{8.33}$	$L_{1.67}$	L_{max}
Single-Family Residential (A, R-1, R-2)	7:00 a.m. to 10:00 pm.	60	65	70	75	80
	10:00 p.m. to 7:00 a.m.	50	55	60	65	70
Multi-Family Residential (R-3)	7:00 a.m. to 10:00 pm.	65	70	75	80	85
	10:00 p.m. to 7:00 a.m.	55	60	65	70	75
Commercial Zones (C, O-P, S-R)	7:00 a.m. to 10:00 pm.	60	65	70	75	80
	10:00 p.m. to 7:00 a.m.	55	60	65	70	75
Industrial Zones	7:00 a.m. to 10:00 pm.	65	70	75	80	85
	10:00 p.m. to 7:00 a.m.	60	65	70	75	80

SOURCE: City of San Marcos Municipal Code, Chapter 20.300.70(F)(2), Table 20.300-5

City of Carlsbad

The City of Carlsbad General Plan's Noise Element presents policies related to noise and land use compatibility, motor vehicle/roadway noise, airport noise, railroad noise and work-related noise (City of Carlsbad, 2015). The following noise and vibration-related policies identified in the Noise Element of the City of Carlsbad General Plan would otherwise be relevant to the Project:

> **Policy 5-P.4: Exterior Noise Levels Exceeding Acceptable Level.** If the noise analysis shows that exterior noise levels cannot be mitigated to an acceptable level as identified in Table 5-2 [shown here as **Table 3.13-9**], the development should not be approved without one or more of the following findings:
>
> a. Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen the noise.
>
> b. Changes or alterations to avoid or substantially lessen noise are within the responsibility and jurisdiction of another public agency and not the City of Carlsbad. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
>
> c. Specific economic, social, or other considerations make infeasible the mitigation measures or project alternatives to avoid or substantially lessen noise.
>
> If a project is approved with exterior noise levels exceeding the acceptable noise level, all purchasers of the impacted property shall be notified in writing prior to purchase, and by deed disclosure in writing, that the property they are purchasing is, or will be, impacted by noise and does not meet City of Carlsbad noise standards for residential property.
>
> **Policy 5-P.5: Noise Generation.** As part of development project approval, require that noise generated by a project does not exceed standards established in Table 5-3 [shown here as **Table 3.13-10**].

TABLE 3.13-9
CITY OF CARLSBAD ALLOWABLE NOISE EXPOSURE

Land Use[1]	Outdoor Activity Areas (dBA CNEL)[2,3]	Interior Spaces (dBA CNEL)
Residential	60[4]	45
Motels, Hotels	65	45
Hospitals, Residential Care Facilities, Schools, Libraries, Museums, Churches, Day Care Facilities	65	45
Playgrounds, Parks, Recreation Uses	65	50
Commercial and Office Uses	65	50
Industrial Uses	70	65

NOTES:
1 Development proposed within the McClellan-Palomar Airport Area of Influence shall also be subject to the noise compatibility policies contained in the ALUCP.
2 For non-residential uses, where an outdoor activity area is not proposed, the standard does not apply. Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving use.
3 Where it is not possible to reduce noise in outdoor activity areas to the allowable maximum, levels up to 5 dB higher may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.
4 An exterior noise exposure level of 65 dBA CNEL is allowable for residential uses in a mixed-use project and for residential uses within the McClellan-Palomar Airport Area of Influence, pursuant to the noise compatibility policies contained in the ALUCP.

SOURCE: City of Carlsbad, 2015

TABLE 3.13-10
CITY OF CARLSBAD PERFORMANCE STANDARDS FOR NON-TRANSPORTATION SOURCES

Noise Level Descriptor	Daytime (7:00 a.m. to 10:00 p.m.)	Nighttime (10:00 p.m. to 7:00 a.m.)
Hourly L_{eq}, dBA	55	45
Maximum Level, dBA	75	65

NOTES: Each of the noise levels specified above shall be lowered by 5 dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. Standards reflect as measured at property line of source/sensitive use)

SOURCE: City of Carlsbad, 2015

The City of Carlsbad noise ordinance is found in the City's Municipal Code, Chapter 8.48 (Noise). The following noise standards would otherwise apply to the Project:

> **Chapter 8.48.010: Construction hour limitations.** It shall be unlawful to operate equipment or perform any construction in the erection, demolition, alteration, or repair of any building or structure or the grading or excavation of land during the following hours, except as hereinafter provided:
>
> A. After 6:00 p.m. on any day, and before 7:00 a.m., Monday through Friday, and before 8:00 a.m. on Saturday;
>
> B. All day on Sunday; and
>
> C. On any federal holiday.

Chapter 8.48.020(B): Exceptions. The building official, city engineer, or other official designated by the city manager may modify the hours of construction specified in Section 8.48.010. In making a determination to lengthen or shorten the hours of construction, the city official shall consider the following:

1. Whether the project is an emergency repair required to protect the health and safety of any member of the community;
2. Whether the construction would be less objectionable at night than during daylight hours;
3. The character and nature of the neighborhood in the vicinity of the work site;
4. The potential for great economic hardship;
5. If the work is in the interest of the general public;
6. Whether there is a previously unforeseen effect on the health, safety or welfare of the public; and
7. Any history of complaints regarding compliance with the limitation on hours of construction.

The City of Carlsbad exempts certain activities from land use regulations including installation, maintenance and operation of mutual water companies or public utility pipe lines and electric or telephone transmission lines, or railroads, when located in accordance with the applicable rules and regulations of the public utilities commission of the State of California within rights-of-way, easements, franchises or ownerships of such public utilities. (Carlsbad Municipal Code Section 21.53.080.)

City of Vista

The City of Vista General Plan's Noise Element identifies noise-sensitive land uses and noise sources, define areas of noise impacts, presents noise contour maps and establishes policies and programs to protect the community from excessive noise (City of Vista, 2011). There are no goals or policies identified in the City of Vista General Plan that provide numeric standards against which to analyze the Project's noise impacts.

The City of Vista noise ordinance is found in the City's Municipal Code, Chapter 8.32 (Noise Control).

Section 8.32.040: Adoption of County Regulations Relating to Noise Control.

A. There is adopted by the City Council, for the purpose of controlling noise, that certain code known as the San Diego County Code of Regulatory Ordinances, Chapter 4 of Division 6 of Title 3, relating to control of noise, excepting therefrom the table set out in Section 36.404 and replacing it with the following [shown here as **Table 3.13-11**].

B. The one-hour average sound level limit specified in paragraph A shall be reduced by five decibels for a noise which, in the judgment of the noise control officer, constitutes a whine, screech, hum, or a repetitive noise such as hammering or riveting.

TABLE 3.13-11
CITY OF VISTA APPLICABLE EXTERIOR PROPERTY LINE LIMITS

Zone	Time	Applicable Limit One-hour Average Sound Level (dBA)
A-1, E-1, O & OSR, R-1B, MHP, R-M	7:00 a.m. to 10:00 p.m.	50
	10:00 p.m. to 7:00 a.m.	45
R-M	7:00 a.m. to 10:00 p.m.	55
	10:00 p.m. to 7:00 a.m.	50
C-1, C-2, O-3, C-T, OP, M-U and Downtown Specific Plan	7:00 a.m. to 10:00 p.m.	60
	10:00 p.m. to 7:00 a.m.	55
M-1, I-P, all areas Vista Business Park Specific Plan and Specific Plan 14	Any Time	70

SOURCE: City of Vista Municipal Code, Section 8.32.040 Adoption of County Regulations Relating to Noise Control

C. One copy of the County Code is filed in the Office of the City Clerk, and it is adopted and incorporated as though fully set out at length in this chapter. From the date on which the ordinance codified in this section takes effect, the provisions thereof are controlling within the limits of the city.

D. The provisions of Section 8.32.010 and paragraph A of this Section are not applicable to entertainment conducted under a valid permit issued pursuant to Chapter 5.24 when the entertainment satisfies all conditions for sound generation and sound attenuation imposed by Section 5.24.110 and the applicable permit, including operating hours of the entertainment. Failure to satisfy the noise generation or attention conditions imposed by an entertainment permit or this Chapter constitutes a violation of this Chapter.

The City of Vista has adopted the San Diego County Code, Chapter 4, Division 6 of Title 3 Noise regulations. (Vista Municipal Code 8.32.040.) As noted above, the San Diego County Code Noise limits contained under Chapter 4, Section 36.401 et seq. are not applicable to activities which are preempted by State or Federal law. (San Diego County Code Section 36.417(a)(6))

3.13.3 Applicant Proposed Measures

SDG&E has proposed the following Applicant Proposed Measures (APMs) to address noise and vibration generated by Project construction. Based on the following impact analyses, APM NOI-3 has been superseded by Mitigation Measure NOI-2 put forth by the CPUC.

APM NOI-1: Construction activities will occur during the times established by the local ordinances, with the exception of certain activities where nighttime and weekend construction activities are necessary, including, but not limited to, construction work timeframes mandated by permit, pouring of foundations, and pulling of the conductor, which require continuous operation or must be conducted during off-peak hours per agency requirements. SDG&E will meet and confer with the applicable jurisdiction to discuss temporarily deviating from the requirements of the noise ordinance, as described in the noise variance process.

APM NOI-2: SDG&E will provide notice of the construction plans to all property owners within 300 feet of the Project by mail at least one week prior to the start of construction activities. The announcement will state the anticipated construction start window, anticipated

completion window, and hours of operation, as well as provide a telephone contact number for receiving questions or complaints during construction. SDG&E will maintain functional mufflers and/or silencers on all equipment to minimize noise levels as well as evaluate the potential use of portable noise barriers.

APM NOI-3: If blasting is deemed necessary for the construction of Project components, SDG&E will prepare a blasting plan. The blasting plan will be site specific, based on the location(s) of required blasting and location-specific conditions. The blasting plan will include a description of the planned blasting methods and a schedule for the blasting activities. The blasting plan will include measures to minimize noise related to blasting to the extent feasible.

3.13.4 Environmental Impacts

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. *LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.*

As discussed in Section 3.13.2, the City of Vista and County of San Diego have established construction noise limits of 75 dBA averaged over an 8-hour period and the City of Escondido has a construction noise limit of 75 dBA averaged over a 1-hour period. The 1-hour standard is more conservative than the 8-hour standard because an 8-hour L_{eq} calculation accounts for more periods of reduced activity (e.g., lunch breaks), which results in an overall decreased average noise level compared to 1-hour L_{eq} calculations. Therefore, for a consistent conservative analysis of the environmental noise impacts throughout the Project area, the 75 dBA hourly L_{eq} limit is used to determine the significance of short-term daytime and nighttime construction noise levels relative to the potential to cause a substantial temporary increase in ambient noise levels regardless of the local jurisdiction where the construction activities would occur. Pursuant to APM NOI-1, SDG&E would meet and confer with the applicable jurisdictions to discuss temporarily deviating from the requirements of the noise ordinance, as described in the noise variance process.

Construction

As noted in Section 2.5.1, *Construction Schedule and Sequencing*, construction activities would occur during the times established by the local ordinances, with the exception of certain activities where nighttime, weekend, and/or holiday construction activities are necessary, including, but not limited to, construction work timeframes mandated by permit requirements, pouring of foundations (e.g., continuous concrete pour), and pulling of the conductor, which require continuous operation or must be conducted during off-peak hours per agency requirements.

As part of the CPUC's Permit to Construct application process, SDG&E provided a list of typical construction equipment that would be used during the construction of the Project. Using the Project construction equipment list provided in Table 2-5, *Anticipated Construction Equipment*, in Chapter 2, *Project Description*, and the respective reference noise levels, the maximum and 1-hour L_{eq} noise levels per construction phase were calculated from distances of 50 to 1,000 feet (see **Tables 3.13-12** and **3.13-13**, respectively). The noise levels presented in Tables 3.13-12 and 3.13-13 are representative construction noise levels that would occur along Segments 1, 2, and 3

and at the substations. All equipment noise levels beyond 50 feet were calculated using the excess ground attenuation rate (7.5 dB per doubling of distance), except helicopter noise levels, which were estimated using the basic rate of geometric spreading loss (6 dB per doubling of distance) since the helicopter would not be grounded in the Project area. The equipment usage factors to estimate the 1-hour L_{eq} noise levels account for the fact that equipment would not continuously operate at full throttle during the 1-hour period. To account for the potential that some pieces of equipment may operate at the same time and location, Table 3.13-13 includes a combined noise level for the loudest two pieces of equipment that could operate at the same place during any 1-hour period for each construction phase. As shown in Table 3.13-13, sensitive receptors within 50 feet of off-road Project construction equipment (e.g., excavators, forklifts) would be exposed to noise levels exceeding the 1-hour 75 dBA L_{eq} temporary noise increase significance threshold. Since sensitive receptors were identified within 20 feet of on-site construction areas and there is potential for construction activities outside of daytime hours (i.e., nighttime, weekend, holiday), construction noise could constitute a substantial temporary increase in ambient noise levels in the Project vicinity.

TABLE 3.13-12
TYPICAL MAXIMUM CONSTRUCTION EQUIPMENT NOISE LEVELS

Phase/Equipment Type	Estimated Equipment Noise Levels (L_{max}, dBA)				
	50 feet	100 feet	200 feet	500 feet	1,000 feet
Staging Yard Setup, Road Refreshing, Vegetation Trimming, BMP Installation)					
Excavator	81	73	66	56	48
Forklift	85	77	70	60	52
Grader	85	77	70	60	52
Loader	79	71	64	54	46
Mower	85	77	70	60	52
Pickup Truck	75	67	60	50	42
On-road Truck	76	68	61	51	43
Direct-Bury Pole Construction					
Air Compressor	78	70	63	53	45
Boom Truck	75	67	60	50	42
Drill Rig/Truck-mounted Auger	79	71	64	54	46
Pickup Truck	75	67	60	50	42
On-road Truck	76	68	61	51	43
Pier Foundation Construction					
Air Compressor	78	70	63	53	45
Boom Truck	75	67	60	50	42
Drill Rig/Truck-mounted Auger	79	71	64	54	46
Excavator	81	73	66	56	48
Forklift	85	77	70	60	52
Generator	81	73	66	56	48
Loader	79	71	64	54	46
Pickup Truck	75	67	60	50	42
On-road Truck	76	68	61	51	43
AC Interference Mitigation System Installation					
Mud Rotary Drill Rig	79	71	64	54	46
Support Truck	75	67	60	50	42
Desander	80	72	65	55	47

TABLE 3.13-12 (CONTINUED)
TYPICAL MAXIMUM CONSTRUCTION EQUIPMENT NOISE LEVELS

Phase/Equipment Type	Estimated Equipment Noise Levels (L_{max}, dBA)				
	50 feet	100 feet	200 feet	500 feet	1,000 feet
AC Interference Mitigation System Installation (cont.)					
Hydro Vacuum Truck	82	74	67	57	49
Water Truck	77	69	62	52	44
Vacuum Truck	85	77	70	60	52
Service Truck	75	67	60	50	42
Micropile Foundation Construction					
Air Compressor	78	70	63	53	45
Backhoe	78	70	63	53	45
Crane	81	73	66	56	48
Crew Truck	75	67	60	50	42
Flatbed Truck	74	66	59	49	41
Forklift	85	77	70	60	52
Fuel Truck	77	69	62	52	44
Generator	81	73	66	56	48
Pickup Truck	75	67	60	50	42
Tractor/Trailer Unit	77	69	62	52	44
Structure Installation and Assembly					
Boom Truck	75	67	60	50	42
Helicopter	-	-	83	75	69
Pickup Truck	75	67	60	50	42
On-road Truck	77	69	62	52	44
Stringing/Transfer Conductor/Sagging Activity					
Boom Truck	75	67	60	50	42
Helicopter	-	-	83	75	69
Forklift	85	77	70	60	52
Pickup Truck	75	67	60	50	42
On-road Truck	77	69	62	52	44
Wire-pulling Machine (pulling rig)	85	77	70	60	52
Trenching for Installation of Underground Cables					
Backhoe	78	70	63	53	45
Dozer	82	74	67	57	49
Concrete Truck	79	71	64	54	46
Crane	81	73	66	56	48
On-road Truck	77	69	62	52	44
Wire-pulling Machine (pulling rig)	85	77	70	60	52
Demobilization/Right-of-way Restoration and Cleanup/Road Refreshing					
Backhoe	78	70	63	53	45
Excavator	81	73	66	56	48
Grader	85	77	70	60	52
Mower	85	77	70	60	52
Pickup Truck	75	67	60	50	42
On-road Truck	77	69	62	52	44

SOURCE: FHWA, 2008; FTA, 2006; SDG&E, 2017, 2018; USDOT, 2013; ESA, 2019

TABLE 3.13-13
CONSTRUCTION EQUIPMENT NOISE LEVELS

Phase/Equipment Type	Estimated Equipment Noise Levels (1-hour L_{eq})				
	50 feet	100 feet	200 feet	500 feet	1,000 feet
Staging Yard Setup, Road Refreshing, Vegetation Trimming, BMP Installation					
Excavator	**77**	69	62	52	44
Forklift	**82**	74	67	57	49
Grader	**81**	73	66	56	48
Loader	75	67	60	50	42
Mower	**82**	74	67	57	49
Pickup Truck	71	63	56	46	38
On-road Truck	73	65	58	48	40
Grader and Excavator	**82**	75	67	57	50
Direct-Bury Pole Construction					
Air Compressor	74	66	59	49	41
Boom Truck	68	60	53	43	35
Drill Rig/Truck-mounted Auger	72	64	57	47	39
Pickup Truck	71	63	56	46	38
On-road Truck	73	65	58	48	40
Air Compressor and On-road Truck	**77**	69	61	52	44
Pier Foundation Construction					
Air Compressor	74	66	59	49	41
Boom Truck	68	60	53	43	35
Drill Rig/Truck-mounted Auger	72	64	57	47	39
Excavator	**77**	69	62	52	44
Forklift	**82**	74	67	57	49
Generator	**78**	70	63	53	45
Loader	75	67	60	50	42
Pickup Truck	71	63	56	46	38
On-road Truck	73	65	58	48	40
Generator and Forklift	**83**	**76**	68	58	51
AC Interference Mitigation System Installation					
Mud Rotary Drill Rig	72	64	57	47	39
Support Truck	71	63	56	46	38
Desander	**77**	69	62	52	44
Hydro Vacuum Truck	72	64	57	47	39
Water Truck	73	65	58	48	40
Vacuum Truck	**81**	73	66	56	48
Service Truck	71	63	56	46	38
Vacuum Truck and Desander	**82**	75	67	57	50
Micropile Foundation Construction					
Air Compressor	74	66	59	49	41
Backhoe	74	66	59	49	41
Crane	73	65	58	48	40
Crew Truck	71	63	56	46	38
Flatbed Truck	70	62	55	45	37
Forklift	**82**	74	67	57	49
Fuel Truck	73	65	58	48	40
Generator	**78**	70	63	53	45
Pickup Truck	71	63	56	46	38
Tractor/Trailer Unit	73	65	58	48	40
Generator and Forklift	**83**	**76**	68	58	51

TABLE 3.13-13 (CONTINUED)
CONSTRUCTION EQUIPMENT NOISE LEVELS

Phase/Equipment Type	Estimated Equipment Noise Levels (1-hour L_{eq})				
	50 feet	100 feet	200 feet	500 feet	1,000 feet
Structure Installation and Assembly					
Boom Truck	68	60	53	43	35
Helicopter	-	-	77	69	63
Pickup Truck	71	63	56	46	38
On-road Truck	73	65	58	48	40
Helicopter or Boom Truck and On-road Truck*	74	67	77	69	63
Stringing/Transfer Conductor/Sagging Activity					
Boom Truck	68	60	53	43	35
Helicopter	-	-	**77**	69	63
Forklift	**82**	74	67	57	49
Pickup Truck	71	63	56	46	38
On-road Truck	73	65	58	48	40
Wire-pulling Machine (pulling rig)	**82**	74	67	57	49
Helicopter or Boom Truck and Wire Pulling Machine*	**82**	75	**77**	69	63
Trenching for Installation of Underground Cables					
Backhoe	74	66	59	49	41
Bulldozer	**78**	70	63	53	45
Concrete Truck	**75**	67	60	50	42
Crane	73	65	58	48	40
On-road Truck	73	65	58	48	40
Wire-pulling Machine (pulling rig)	**82**	74	67	57	49
Wire Pulling and Crane	**83**	75	67	58	50
Demobilization/Right-of-way Restoration and Cleanup/Road Refreshing					
Backhoe	74	66	59	49	41
Excavator	**77**	69	62	52	44
Grader	**81**	73	66	56	48
Mower	**82**	74	67	57	49
Pickup Truck	71	63	56	46	38
On-road Truck	73	65	58	48	40
Grader and Excavator	**82**	75	67	57	50

NOTE: **Bold** = Exceeds the noise significance threshold of 75 dBA L_{eq}.

* Since it is assumed helicopter activities associated with the Structure Installation and Assembly and Stringing/Transfer Conductor/Sagging Activity phases would not occur within 50 feet or 100 feet of sensitive receptors locations, the combined noise levels for these phases at 50 feet and 100 feet reflect on-site construction equipment, while maximum noise levels beyond those distances would be associated with the helicopter.

SOURCE: FHWA, 2006; FTA, 2006; SDG&E, 2017, 2018; ESA, 2019

To reduce construction-generated noise, SDG&E proposed APMs NOI-1 and NOI-2 requiring work to occur during daytime hours, obtaining a variance for nighttime work, notices to property owners, maintaining a noise "hotline," maintaining noise-reduction control measures, and evaluation of the use of portable noise barriers. Based on this analysis, these APMs are supplemented by **Mitigation Measure NOI-1**, which identifies specific measures and standards that would reduce potential impacts to less than significant.

Mitigation Measure NOI-1: Construction Noise Reduction and Mitigation Plan. To reduce daytime noise impacts due to construction of the Project near sensitive receptors, SDG&E shall develop and implement a Construction Noise Reduction and Mitigation Plan (Plan). The Plan shall be submitted to the CPUC at least 14 days prior to the commencement of construction activities for review and approval. The Plan shall include a requirement for SDG&E to administer a noise monitoring program when construction activities are conducted within 100 feet of sensitive receptor locations to ensure that the provisions of the Plan, including those identified below, are effective in reducing construction noise levels at sensitive receptor locations to 75 dBA L_{eq} or less. The Plan shall present specific measures that identify how construction noise limits of 75 dBA as an hourly L_{eq} at nearby sensitive receptor locations will be adhered to, how potential exceedances will be documented and corrected, and how impacts on sensitive receptors from exceedances that cannot be corrected or avoided will be mitigated, including but not limited to the following measures:

Noise Reduction

The following measures shall apply to construction activities within 100 feet of sensitive receptor locations:

- Impact tools (e.g., jack hammers, pavement breakers, and rock drills) shall be hydraulically or electrically powered where feasible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dB. External jackets on the tools themselves shall be used where feasible; this could achieve a reduction of 5 dB. Quieter procedures, such as use of drills rather than impact tools, shall be used whenever feasible.

- When construction activities that could potentially exceed 75 dBA are conducted, construction equipment and trucks shall be equipped with enhanced noise control measures (where feasible and reasonably available). Enhanced noise control measures shall be identified in the Plan and could include, but are not limited to, improved exhaust mufflers and intake silencers, engine enclosures, noise shields or shrouds, etc.

- When construction activities that could potentially exceed 75 dBA are conducted, noise barriers such as noise shields, barriers, blankets, or enclosures shall be used, where feasible, adjacent to or around noisy construction equipment. Noise control shields/barriers/blankets shall be made featuring weather-protected, sound-absorptive material on the construction-activity side of the noise shield/barrier/blanket. The noise barrier must be installed in a location that completely blocks line-of-sight between the construction noise source (e.g., generator, backhoe) and sensitive receptors located within 100 feet of the noise source.

- Stationary construction noise sources shall be located as far from adjacent receptors as possible. They shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or other measures to the extent this does not interfere with construction.

Notification and Correction

- Distribute to the potentially affected residences within 100 feet of Project construction an informational pamphlet, and post signs at conspicuous publicly accessible places at each construction site, that indicate the hours of construction

work and applicable noise level limits and provide a "hotline" telephone number, which shall be attended during active construction working hours and record messages outside of working hours, for use by the public to register complaints. SDG&E shall identify whether posted hours and/or the 75 dBA L_{eq} threshold have been exceeded, take action to keep to posted hours and/or reduce noise levels below 75 dBA, and notify CPUC within 24 hours. With regard to any noise complaints received citing project construction, SDG&E shall ensure that all complaints received during or outside of working hours shall be logged noting date, time, complainant's name, nature of complaint, and any corrective action taken, and shall submit such information to the CPUC Project Manager within 48 hours of receiving the complaint.

- For construction activities that involve a helicopter (e.g., sock line installation, movement of materials), at least one week prior to the start of such activity, additional notice shall be issued or delivered [by a means which provides proof of delivery] by SDG&E and/or its contractor to sensitive receptors within 300 feet of planned helicopter activity. This notice shall include the estimated date and time of the proposed work, as well as the estimated duration of the work both in terms of overall duration per segment, and duration per pole location.

Relocation

- The Plan shall provide for temporary relocation of residents in the event that the Plan or the noise monitoring program identifies the potential for construction noise to exceed 75 dBA L_{eq} within 100 feet of such receptors.

Significance after Mitigation: Mitigation Measure NOI-1 would ensure that potential construction-related noise impacts would be reduced through implementation of the Construction Noise Reduction Plan, which would be subject to the review and approval of CPUC. With the implementation of this mitigation measure, this impact would be reduced to a less-than-significant level.

Although not likely, it is possible that hydraulic rock drilling or rock blasting may be used during construction. As previously discussed, the threshold of 75 dBA L_{eq} averaged over 1 hour is used to determine the significance of short-term daytime and nighttime construction noise levels relative to the potential to cause a substantial temporary increase in ambient noise levels in the Project vicinity above levels existing without the Project. Blasting, if used, would be impulsive and occur infrequently (e.g., once or twice a day); however, the potential blasting activities could expose nearby residences to impulsive noise that could exceed the applied 1-hour average 75 dBA threshold. Since blasting could exceed the 75 dBA 1-hour L_{eq} threshold, SDG&E proposed APM NOI-3 to require a blasting plan. Based on this analysis, that APM is superseded by **Mitigation Measure NOI-2**, which identifies specific measures and standards that would reduce potential impacts to less than significant.

Mitigation Measure NOI-2: Blasting Plan. Prior to conducting any blasting activities, SDG&E shall develop a Blasting Plan in coordination with an acoustical analyst, geotechnical engineer, and construction contractor. The Plan shall be submitted to the CPUC at least 14 days prior to the commencement of construction activities for review and approval to ensure that all components of this measure have been included and all required reviews, signatures, and permits obtained. The plan shall include a current/valid copy of the Explosives Permit issued by the San Diego County Sheriff's Office, as well

as documentation that all local blasting requirements have been adhered to. The Blasting Plan shall include at a minimum the following measures:

- Methods of matting or covering of blast area to prevent excessive air blast pressure.
- Description of air blast monitoring program.
- If necessary, SDG&E and/or its contractors shall use portable noise barriers between the source and affected occupied properties to reduce excessive noise impacts.
- Blasting shall be limited to between the hours of 7:00 a.m. and 7:00 p.m. daily.
- Blasting notification procedures, lead times, and list of those notified. Public notification to potentially affected sensitive receptors describing the expected extent and duration of the blasting.
- Verification that explosives are not being proposed for use within 300 feet of the boundary of any occupied parcels zoned for residential. In the event that blasting activities are proposed within this distance, SDG&E will provide verification to the CPUC that residences affected by noise are notified of the date and time of blasting and offered temporary relocation assistance.

Significance after Mitigation: Mitigation Measure NOI-2 would ensure that SDG&E would have a plan in place if conditions are encountered in the field which calls for blasting and that it occur under controlled circumstances. With the implementation of this mitigation measure, this impact would be reduced to a less-than-significant level.

As discussed in Chapter 2, *Project Description*, helicopters may be used during pole installation, stringing, and delivering supplies and equipment. The use of the helicopters would be intermittent and would not require landing zones within the Project area. It is anticipated that the helicopter used during construction would be staged at the nearby airport, McClellan-Palomar Airport. As shown in Table 3.13-12, the operation of a helicopter could generate a noise level of 83 dBA L_{max} from a distance of 200 feet (USDOT, 2013). Helicopter activities would require up to 8 hours of total operation throughout Project construction. When in use, the helicopter is anticipated to hover for several minutes at each installation after delivering a pole and then promptly leave. It would not remain in the same place for the entire installation. As shown in Table 3.13-15, assuming a helicopter would be used for 15 minutes per hour, sensitive receptors would be exposed to 1-hour average noise levels exceeding 75 dBA. Since noise generated during the use of the helicopter could expose nearby sensitive receptors to noise levels that could exceed the 75 dBA 1-hour average threshold, noise generated by helicopter use during Project construction could expose nearby sensitive receptors to a substantial temporary increase in ambient noise levels in the Project vicinity, a significant impact. However, implementation of **Mitigation Measure NOI-1** would reduce this impact to a less-than-significant level by providing written notices and a noise complaint "hotline" to all property owners within 300 feet of planned helicopter activity, and by providing for temporary relocation of residents in the event that the Plan or the noise monitoring program identifies the potential for construction noise to exceed 75 dBA L_{eq} within 100 feet of sensitive receptors.

Operation and Maintenance

Given the passive nature of the permanent Project components, they would not produce sound in excess of the applied 1-hour average 75 dBA L_{eq}. Maintenance activities would include periodic inspections and repairs conducted on an as-needed, short-term basis. The Project's slight increase in maintenance activities and related miles traveled would be offset by the decrease in maintenance activities resulting from the proposed pole replacement and reconductoring/re-energizing of the existing de-energized line, which would result in a net decrease in heavy truck use and mileage. With the exception of unanticipated repairs to reestablish service, these activities and resulting noise would not vary substantially from that currently conducted and experienced along the Project as noted in Section 2.6.1, *General Practice Operation and Maintenance Activities and Practice*. Therefore, this would be a less-than-significant impact.

b) Generation of, excessive groundborne vibration or groundborne noise levels? *LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.*

Construction

Some types of construction equipment and methods can produce vibration levels that can cause architectural damage to structures and human annoyance.[1] Vibration levels generated during construction of the Project would vary during the construction period, depending upon the construction activity and the types of construction equipment used. Typical vibration levels for the construction equipment types that would generally result in the highest vibration levels (e.g., drill rig, large bulldozers) are presented in **Table 3.13-14**.

TABLE 3.13-14
VIBRATION SOURCE LEVELS FROM CONSTRUCTION EQUIPMENT

Distance (feet)	Peak Particle Velocity (in/sec)
	Drill Rig, Large Bulldozer
50	0.031
75	0.017
100	0.011
150	0.006

SOURCE: FTA, 2006

This analysis relies on a vibration thresholds established by the Federal Transit Administration (FTA). According to the FTA's *Transit Noise and Vibration Impact Assessment*, residential land uses exposed to a vibration level of 80 VdB could result in human annoyance and residential buildings exposed to a vibration level of 0.2 PPV (inch/second) could result in building damage (FTA, 2006).

As previously discussed, there are sensitive receptors located within 20 feet of on-site construction areas. However, the use of a drill rig or large auger to excavate holes during concrete pier

[1] Human annoyance refers to an unpleasant mental state that is characterized by such effects as irritation and distraction from one's conscious thinking. It can lead to emotions such as frustration and anger.

foundation construction would be located approximately 50 feet from the nearest residences. As shown in Table 3.13-14, the operation of a drill rig could expose the nearest residences to a vibration level of 0.031 PPV or 79 VdB, which is below the 80 VdB threshold for human annoyance and the 0.2 PPV (inch/second) threshold for building damage. Therefore, the use of off-road construction would expose nearby sensitive receptor to vibration levels that would result in a less-than-significant impact.

As noted earlier, blasting may be used during construction of the Project and the exact locations of where blasting may be required is currently unknown. Ground vibration that occurs from blasting is dependent on the type of rock, type of explosive, and depth below ground that explosives are placed. Blasting in various industries use different techniques and may result in different PPV. Using Oriard's basic formula for predicting blast vibration found in Caltrans' *Transportation and Construction Vibration Guidance Manual*, vibration levels from various charge weights and distances were approximated and are presented in **Table 3.13-15** (Caltrans, 2013). The vibration levels presented in Table 3.13-13 represent the worst case vibrations that could be experienced at the nearest sensitive receptor.

TABLE 3.13-15
VIBRATION SOURCE LEVELS FROM BLASTING

Distance (feet)	Peak Particle Velocity (in/sec) by Pounds of Explosive			Vibration Level (VdB) by Pounds of Explosive		
	1	5	10	1	5	10
50	**0.46**	**1.68**	**2.92**	**101**	**112**	**117**
75	**0.24**	**0.88**	**1.53**	**96**	**107**	**112**
100	0.15	**0.55**	**0.96**	**92**	**103**	**108**
125	0.11	**0.39**	**0.67**	**89**	**100**	**105**
150	0.08	**0.29**	**0.50**	**86**	**97**	**102**
175	0.06	**0.23**	**0.39**	**84**	**95**	**100**
200	0.05	0.18	**0.32**	**82**	**93**	**98**
300	0.03	0.10	0.17	76	**88**	**92**
400	0.02	0.06	0.10	72	**84**	**88**
500	0.01	0.04	0.07	69	**80**	**85**
600	0.01	0.03	0.05	67	78	**83**
700	0.01	0.02	0.04	65	76	**81**
800	0.01	0.02	0.03	63	74	79

NOTES: **Bold** = Exceeds 0.2 PPV for building damage threshold or 80 VdB human annoyance threshold

1 $PPV = K(Ds)^{-1.6}$
K = K Factor, The combined K factor for Oriard's upper and lower bounds are 242 and 24, respectively. Assumed a K factor of 242.
Ds = Square-root scaled distance (distance to receiver in feet divided by square root of charge weight in pounds).

SOURCE: Caltrans, 2013

Human response to blasting is subjective, as two people may react differently to the same vibration event depending on where they are in a structure. When residents feel a blast, they may become concerned about damage to their home. If blasting is required to remove dense rock, residences could be located within 50 feet of a blast area. Residences located 50 feet from the

blast area could be exposed to a vibration levels ranging from 0.46 to 2.92 PPV or 101 to 117 VdB depending on the explosive yield, which would exceed the applied 80 VdB threshold for human annoyance and the 0.2 PPV (inch/second) threshold for building damage. Therefore, CPUC proposes **Mitigation Measure NOI-3**, to ensure that blasting activities would not expose the nearest sensitive receptor to vibration levels that would result in human annoyance or building damage.

> **Mitigation Measure NOI-3: Vibration Reduction Plan.** Prior to any blasting construction, the applicant shall develop a Vibration Reduction Plan in coordination with an acoustical analyst, geotechnical engineer, and construction contractor, and submit the Plan to the CPUC for approval at least 14 days prior to any proposed blasting. The Vibration Reduction Plan shall include vibration reduction measures to ensure that surrounding buildings will be exposed to less than 0.2 PPV to prevent building damage. At a minimum, the plan shall consider the following measures:
>
> - Evidence of licensing, experience, and qualifications of blasting contractors.
> - The Plan shall establish a vibration limit of 0.2 PPV at nearby structures in order to protect structures from blasting activities and identify specific locations for monitoring. A pre-blast survey shall be conducted of any potentially affected structures.
> - The Plan shall identify the appropriate size of the explosive charge to ensure that a vibration level of 0.2 PPV is not exceeded at nearby structures.
> - Impacted property owners shall be notified at least 48 hours prior to the visual inspections.
> - Post-construction inspection of structures shall be performed to identify (and repair if necessary) any damage from blasting vibrations. Any damage shall be documented by photograph, video, etc. This documentation shall be reviewed with the individual property owners and SDG&E shall arrange and fund any needed repairs. Documentation of these efforts shall be provided to the CPUC.
>
> **Significance after Mitigation:** Mitigation Measure NOI-3 would ensure that if conditions are encountered in the field which requires blasting, SDG&E would have a plan in place to implement to ensure that it occurs under controlled circumstances. With the implementation of this mitigation measure, this impact would be reduced to a less-than-significant level.

Operation and Maintenance

Since the operation and maintenance of the Project would not introduce any new sources of groundborne vibration, there would be no impact under this criterion.

c) For a project located within the vicinity of a private airstrip or an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels? *NO IMPACT.*

The Project does not involve the development of new noise sensitive land uses and, thus, implementation of the Project would not expose people to excessive aircraft noise. In addition,

there is no public airport located within 2 miles of any of the Project components. The closest airport is the McClellan-Palomar Airport, located approximately 2.4 miles west of the study area. Therefore, the Project would result in no impact relating to this criterion.

Mitigation: None required.

3.13.5 References

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City of Carlsbad, 2015. City of Carlsbad General Plan. September.

City of Escondido, 2012. Escondido General Plan Community Protection. May.

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City of Vista, 2011. City of General Plan Noise Element. December.

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U.S. Environmental Protection Agency (USEPA), 1971. Noise from Construction Equipment and Operations, Building Equipment and Home Appliances. December 31.

3.14 Population and Housing

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
14. POPULATION AND HOUSING — Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

This section evaluates the potential for construction, operation, and maintenance of the Project to result in impacts related to population and housing in the study area. For the purposes of the evaluation of potential population and housing impacts, the study area is defined as the footprint of all components of the Project, including all areas of temporary and/or permanent ground disturbance and the surrounding communities within which the Project would be constructed and operated, as described below.

3.14.1 Environmental Setting

The Project would be constructed in northern San Diego County. Portions of the Project would be located within the cities of Carlsbad, Escondido, Vista, San Marcos and in unincorporated San Diego County. The Project would be located in an area that is predominantly residential with some light industrial and commercial development, mixed-use, and open space (see Section 3.11, *Land Use and Planning*).

Population

Table 3.14-1 summarizes projected population growth from 2010 to 2050 for the study area municipalities, including unincorporated San Diego County. As demonstrated in the table, the population in this area is expected to increase substantially over the next 30 to 35 years. The amount of population growth from 2012 to 2050 (the most recent projections available) is expected to range from approximately 16 percent in Carlsbad to approximately 35 percent in the City of San Diego.

Housing

Table 3.14-2 presents housing data for San Diego County, the City of San Diego, and other study area jurisdictions. As reflected in Table 3.14-2, vacancy rates in the study area range from approximately 4.4 percent in the City of Escondido to 7.0 percent in the unincorporated areas of San Diego County. In addition to permanent housing options, there are numerous hotels, motels, and other temporary housing options in the area which could be available for construction workers.

TABLE 3.14-1
PROJECTED POPULATION GROWTH, 2012 – 2050

Area	2012 Population	Projected 2020 Population	Projected 2050 Population	Numeric Change 2012-2050	% Change 2012 - 2050
City of San Diego	1,321,315	1,453,267	1,777,936	456,621	35%
City of Carlsbad	107,674	118,450	124,518	16,844	16%
City of Escondido	146,089	165,214	173,625	27,536	19%
City of San Marcos	85,560	98,915	113,015	27,455	32%
City of Vista	95,034	96,993	126,455	31,421	33%
County of San Diego, Unincorporated	495,267	543,426	647,233	151,966	31%

SOURCE: San Diego Association of Governments (SANDAG), 2013.

TABLE 3.14-2
2017 HOUSING DATA ESTIMATES

Jurisdictional Area	Total Housing Units	Occupied Housing Units	Vacant Housing Units	Vacancy Rate (percent)
City of San Diego	541,140	509,216	31,924	5.9%
City of Carlsbad	46,878	43,713	3,165	6.8%
City of Escondido	48,622	46,488	2,134	4.4%
City of San Marcos	31,366	29,941	1,425	4.5%
City of Vista	32,543	31,399	1,144	3.5%
County of San Diego, Unincorporated	177,885	165,472	12,413	7.0%
San Diego County Total	1,210,138	1,139,651	70,487	5.8%

SOURCE: DOF, 2018

Employment

In 2014, it was estimated that there were approximately 63,800 individuals employed in the construction industry in San Diego County. That number is expected to increase to 85,500 by 2024, resulting in approximately a 3 percent annual increase in employment in the construction industry (EDD, 2016).

3.14.2 Regulatory Setting

Federal/State

No federal/State regulations apply to population and housing within the study area.

Local

San Diego Association of Governments

The San Diego Association of Governments is a regional planning agency comprised of representatives from 18 cities and county governments which serves a forum for regional decision making. SANDAG's Land Use and Regional Growth program produces growth forecasts for population, housing, employment, and income in the San Diego Region. Current growth forecasts project regional growth in the region through 2050 (SANDAG, 2018).

San Diego County General Plan

The Housing Element of the San Diego County General Plan (County of San Diego, 2011) includes objectives, policies, and programs supporting the County's major goals related to population and housing, which include providing a variety of housing and tenancy types at a range of prices, residential neighborhoods that respect unique local character and the natural environment, and affordable and suitable housing for all economic segments, with emphasis on the housing needs of lower income households and households with special needs.

City of Carlsbad General Plan

The Housing Element of the City of Carlsbad General Plan (City of Carlsbad, 2015) contains goals, policies, and programs intended to guide City decision making and provide a "coordinated and comprehensive strategy for promoting the production of safe, decent, and affordable housing within the community" during the planning period of 2013-2021.

City of Escondido General Plan

The Housing Element of the City of Escondido General Plan (City of Escondido, 2012) contains policies and programs which are designed to plan for quality, managed, and sustainable growth, provide a range of housing opportunities for all income groups and households with special needs, and enhance the quality of the city's housing stock and preserve the integrity of neighborhood character.

City of San Marcos General Plan

The Housing Element of the City of San Marcos General Plan (City of San Marcos, 2013) contains policies designed to implement the City's housing goals: provide a range of housing opportunities which meet the special needs of the community and persons of lower and moderate incomes, maintain the existing housing stock and preserve neighborhood character, reduce or remove governmental constraints to the development, improvement, and maintenance of housing, and promote equal opportunity for all residents to reside in housing of their choice.

City of Vista General Plan

The Housing Element 2013-2021 of the City of Vista General Plan (City of Vista, 2013) contains policies and programs intended to maintain and enhance the quality of residential neighborhoods in Vista, conserve the existing supply of affordable housing, encourage the provision of a wide range of housing by location, type of unit, and price, provide increased opportunities for home

ownership, enable homeless individuals and families to move from homelessness to self-sufficiency, remove governmental constraints on housing development, and promote fair housing practices.

City of San Diego General Plan

The Housing Element 2013-2050 of the City of San Diego General Plan (City of San Diego, 2013) includes objectives, policies, and programs for the following five major goals related to population and housing: ensure the provision of sufficient housing for all income groups maintain and upgrade the quality, safety and livability of San Diego's housing stock, and provide affordable housing opportunities consistent with a land use pattern which promotes infill development and socioeconomic equity.

3.14.3 Applicant Proposed Measures

No Applicant Proposed Measures (APMs) have been proposed to address potential effects on population and housing.

3.14.4 Environmental Impacts

Discussion

a) The Project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure): *LESS THAN SIGNIFICANT IMPACT.*

The Project does not include the construction of new homes or business and, as a result, would not directly induce substantial temporary or permanent population growth in the study area. The Project could indirectly induce population growth in the study area if it resulted in an increase in local population. During the 11-month construction period, the Project would employ up to 80 construction workers working in several different crews concurrently at various project locations. As mentioned in Section 3.14.1, *Environmental Setting*, there are approximately 63,800 individuals employed in the construction industry in San Diego; therefore, there would be a sufficiently large labor pool from which the Project could draw. Because construction workers are likely to be a mix of SDG&E employees and general construction workers residing in San Diego County, the Project would not require workers to relocate to the area for construction of the Project. Therefore, Project construction is not expected to induce in-migration. Project operation and maintenance activities are expected to be similar as existing operation and maintenance activities and would not require substantial numbers of additional full-time employees.

As described in Section 2.6, *Operation and Maintenance*, maintenance of the Project would be substantially similar to existing maintenance activities along the Project alignment. Therefore, operation and maintenance activities would not result in any direct impact to unplanned population growth due to the in-migration of operation and maintenance staff.

Regarding indirect impacts to population growth due to the extension of infrastructure, operation of the Project would not provide access to previously inaccessible areas, extend public services to previously unserved areas, or cause new development elsewhere. As described in Section 2.1, Introduction, the Project is designed to meet NERC reliability criteria, eliminate NERC violations, and alleviate congestion at the Escondido/San Marcos Substations. As noted in Proponents Environmental Assessment (PEA) Section 5.4, *Growth Inducement*, the Project is not proposed to advance growth in the area, but to address these existing service issues (SDG&E, 2017). SDG&E would continue to meet its obligation, as the area's electric utility provider, to accommodate growth already contemplated by the local land use jurisdictions in its service area. Therefore, the Project is intended to bring the Escondido/San Marcos substations into compliance, improve reliability for the existing population in the service area, and provide service for planned, projected growth within the service area. As a result, construction and operation of the Project are not likely to directly or indirectly induce in-migration during construction or operation and maintenance. The Project would have a less than significant indirect impact on population growth associated with extension of infrastructure.

b) The Project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere: *NO IMPACT.*

The Project would be constructed primarily within existing SDG&E right-of-way and would run along existing roads and power lines. Where the Project would require new right-of-way for Segment 1, the expanded right-of-way would include land uses such as open space, commercial buildings, vacant and undeveloped land, and single-family residential homes. Within the expanded right-of-way, the Project would involve replacing existing poles or removing existing poles from service. Therefore, construction of the Project would not result in the displacement of existing homes and would have no impact under this criterion.

As described above, the Project would not displace any housing; nor would it displace any people or any structures that are currently inhabited. As a result, the Project would have no impact associated with the displacement of people or the construction of replacement housing.

3.14.5 References

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3.15 Public Services

		Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
15.	**PUBLIC SERVICES — Would the project:**				
a)	Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:				
	i) Fire protection?	☐	☒	☐	☐
	ii) Police protection?	☐	☐	☒	☐
	iii) Schools?	☐	☐	☐	☒
	iv) Parks?	☐	☐	☐	☒
	v) Other public facilities?	☐	☐	☐	☒

For an impact related to public services to be considered significant, the Project would have to result in adverse physical impacts to the environment not already addressed in the other individual resource sections of this CEQA document.

Existing public services including fire protection, police protection, schools, parks, libraries, and other public facilities within the study area are discussed by municipality in this section. For the purposes of the evaluation of public services, the study area is defined as public service facilities within 1 mile of the footprint of Project components including all areas of temporary and permanent ground disturbance, as well as Project staging areas. As components of the Project are located in the cities of Carlsbad, Escondido, Vista, and San Marcos, as well as unincorporated San Diego, including Lake San Marcos, this section discusses public services for all of these jurisdictions.

3.15.1 Environmental Setting

Fire Protection

California Department of Fire and Forestry (CAL FIRE)

The San Diego Unit of the Southern Region of Cal Fire supports regional fire protection with a seasonal fire station, CAL FIRE Del Dios Fire Station #77, located at 2323 Felicita Avenue in Escondido, within 2.5 miles of Segment 3 of the Project. CAL FIRE crews support local municipalities in wildland fire protection and emergency response. See Section 3.20, Wildfire, for a description of the State Responsibility Areas (SRAs) in which CAL FIRE has primary legal and financial responsibility for the prevention and suppression of wildland fires.

San Diego County Fire Authority

The San Diego County Fire Authority supports the delivery of emergency medical and fire response services to a 1.5 million-acre area of unincorporated San Diego County. Emergency service response teams are provided through a combination of professionally trained volunteer and career staff. The San Diego County Fire Authority also coordinates regional fire prevention for unincorporated San Diego County (County of San Diego, 2018a). The unincorporated portions of the study area would be served by the San Diego County Fire Authority in coordination with CAL FIRE and other regional response teams.

City of Carlsbad Fire Department

The City of Carlsbad Fire Department provides 24-hour fire, rescue, and emergency services to portions of the study area. The closest station to Project components is Fire Station 6, serving the southeast section of the city, including La Costa Canyon High School. Fire Station 6, located at 7201 Rancho Santa Fe Road, has a crew of three including a captain, an engineer, and a firefighter/paramedic (City of Carlsbad, 2018a).

City of Escondido Fire Department

Fire Protection in the City of Escondido is provided by the Escondido Fire Department co-located with the Police Department at 1163 North Centre City Parkway in Escondido and additionally, by contractual arrangement through the Rincon Del Diablo Fire Protection District. The mission of the Escondido Fire Department is to serve the public and to safeguard the community form the impact of fire, medical, and environmental emergencies through education emergency services and enforcement (City of Escondido, 2018). Escondido and Rincon Del Diablo serve a 50-square-mile area in northern San Diego County utilizing a force of 93 personnel including: 18 full-time non-safety staff members, 10 full-time administrative staff, 3 part-time administrative staff, and 27 senior volunteers. Escondido Fire Department Station #1 is located approximately 1.5 miles east of the Escondido Substation.

City of Vista Fire Department

Fire protection and other emergency response services in the City of Vista are provided by the Vista Fire Department. The City fire protection staff includes management/executive staff, operations personnel, emergency medical staff, and trained volunteers. The department serves a population of more than 120,500 in a combined service area encompassing 36.5 square miles including the City of Vista and the Vista Fire Protection District, extending to the northeast of the city limits. The Vista Fire Department is a full service department, providing services ranging from fire prevention and suppression, to emergency medical services, to technical rescue and hazardous materials mitigation (City of Vista, 2018). The closest station to the study area is Station #5, located at 2009 South Melrose Drive in Vista, approximately 1.75 miles north of Segment 1.

City of San Marcos Fire Department

The San Marcos Fire Department, located at 1 Civic Center Drive, is a full-service department responsive to the City of San Marcos and the San Marcos Fire Protection District, which covers an area of 33 square miles and a population of approximately 95,000 residents. In addition to

protecting a diverse community consisting of residential development, commercial/retail, industrial, and educational facilities, the San Marcos Fire Department provides fire protection for several thousand acres of wildland and wildland urban interface lands in the region. San Marcos has four fire stations, five (24-hour) paramedic ambulances, a shift battalion, and an on call duty Chief. The Fire Department also provides staff support for three wildland fire engines and a California Office of Emergency Services (CalOES) wildland fire engine (City of San Marcos, 2018a). The closest station to the Project is San Marcos Fire Department Station #4, located at 204 San Elijo Road, less than 1mile north of Segment 3.

Rancho Santa Fe Fire Protection District

The Rancho Santa Fe Fire Protection District spans approximately 50 square miles and protects over 33,000 residents. Staff consists of one Chief, One Deputy Chief, two Division Chiefs, one Battalion Chief/Training Officer, three Shift Battalion Chiefs, 48 paid fire suppression positions, and three fire prevention positions, as well as administrative and support staff. The district currently operates out of five full-time fire stations, one part-time fire station, and one administration office serving communities within and surrounding Rancho Santa Fe, 4S-Ranch, Fairbanks Ranch, Cielo, Crosby, Elfin Forest, and Harmony Grove. The two stations closest to the study area are Station 5, located at 2604 Overlook Point Road in Escondido, and Station 6, located at 20223 Elfin Forest Road in Elfin Forest. Station 5 is located near the new planned community of Harmony Grove Village and is currently a temporary facility. Station 6 was formerly operated by the Elfin Forest/Harmony Grove Fire Department, which merged with the Rancho Santa Fe Fire Protection District in 2016 (Rancho Santa Fe Fire Protection District, 2019).

Police/Public Safety

San Diego County Sheriff's Department

The San Diego County Sheriff's Department, the chief law enforcement agency in San Diego County, is comprised of approximately 4,000 employees, including both sworn officers and professional support staff. The department provides law enforcement, detention, and court services for San Diego County in a service area of approximately 4,200 square miles. In addition to providing specialized regional services to the entire county, the department provides law enforcement, traffic, patrol, and investigative services by contract, to the incorporated cities of San Marcos and Vista within the study area (County of San Diego, 2018b).

City of Carlsbad Police Department

The City of Carlsbad Police Department provides crime prevention and law enforcement services to the residents in Carlsbad, and employs 170 full-time equivalent personnel, including 115 sworn officers and 55 civilian staff members (City of Carlsbad, 2018b). The Carlsbad Police Department is located at 2560 Orion Way in Carlsbad, approximately 2 miles west of the Project.

City of Escondido Police Department

Law enforcement and public safety services are provided in Escondido by the City of Escondido Police Department. Its patrol, safety services, and investigative bureaus serve residents from its headquarters located at 1163 North Centre City Parkway, approximately 1.5 miles east of the Escondido Substation. Under its General Plan Police Service Quality of Life Standard,[1] the City of Escondido has established thresholds for initial response times of 5 minutes for "Priority 1" calls (involving crimes in progress or life threatening incidents), and 6.5 minutes for "Priority 2" calls (serious calls not involving life-threatening incidents). Resources are adjusted to maintain staff levels capable of meeting this standard as the City of Escondido expands and changes (City of Escondido, 2012).

City of San Marcos

The City of San Marcos contracts with the San Diego County Sheriff's Department for public safety and law enforcement services, provided mainly through the San Marcos Station located at 182 Santar Place, approximately 2 miles west of the Escondido Substation. The station provides service to a 100-square-mile area including San Marcos, and the unincorporated communities of Lake San Marcos, Elfin Forest, Harmony Grove, Hidden Meadows, Ivy Dell, Del Dios, Lake Hodges, and the San Pasqual Valley. The Sheriff's station has a dedicated captain and a staff of over 100 deputies, professional staff members, and volunteers serving more than 111,000 area residents (San Diego County Sheriff's Department, 2018). The City of San Marcos provides additional crime prevention and neighborhood services to its residents through the Public Safety Center, located at 1 Civic Center Drive in San Marcos (City of San Marcos, 2018b).

City of Vista

The City of Vista also contracts with the San Diego County Sheriff's Department for the provision of law enforcement and related public services (County of San Diego, 2018a). The Vista Sheriff's Department provides a range of services from a station, substation and storefront in the city. Services include general patrol, investigation, narcotics and gang investigations, crime prevention, juvenile intervention, community policing, and administrative services. The Vista Patrol Station is located at 325 South Melrose Drive, approximately 4 miles northwest of Segment 1.

Schools

There are numerous public school districts serving the study area including the San Marcos Unified School District and the Escondido Union School District, with several schools in close proximity to the Project. Residents in the study area may also attend schools in other districts in the neighboring communities such as Carlsbad Unified, Vista Unified, or the San Dieguito Union School District through inter-district transfers. Residents of the unincorporated areas of the county may attend Rancho Santa Fe School District. In addition, there are numerous private and

[1] For the purposes of the environmental analysis, the Escondido Police Service Standard will be considered to be a reasonable standard for performance objectives pertaining to police response times in the study area, as the general plans from other the jurisdictions (in the study area) have not identified specific performance objectives for police response.

charter schools as well as the California State University (San Marcos) in the study area. Refer to **Table 3.15-1**, for existing school districts in the designated study area.

TABLE 3.15-1
EXISTING SCHOOL DISTRICTS IN THE STUDY AREA

School District	Jurisdiction	Nearest School to Project Component	Number of Schools in District
Carlsbad Unified School District	City of Carlsbad	La Costa Meadows Elementary - Segment 2	15
Encinitas Union School District	City of Carlsbad Encinitas	La Costa Heights Elementary - Segment 2	10
Escondido Union School District	City of Escondido	Rock Springs Elementary - Escondido Substation, Segment 1	24
Rancho Santa Fe School District	San Diego County (unincorporated)	R. Roger Rowe Elementary and Middle Schools- Segment 3	2
San Dieguito Union High School District	Carlsbad, North San Diego County	La Costa Canyon High School - Segment 2	10
San Marcos Unified School District	City of San Marcos	San Marcos High School and Middle Schools - Segment 1 San Elijo Elementary -Segment 3	19
San Pasqual Union School District	City of Escondido	Escondido Substation	2
Vista Unified School District	City of Vista	Segment 1	29

SOURCES: Carlsbad Unified School District, Encinitas Union School District, Escondido Union School District, Rancho Santa Fe School District, San Dieguito Union High School District San Marcos Unified School District, San Pasqual Union School District, Vista Unified School District, 2018.

Parks, Trails, and Other Public Facilities

There are numerous public parks and trails in the study area of the Project maintained by the County of San Diego, as well as the cities of San Marcos, Escondido, Carlsbad, and Vista. More details about these public facilities are provided in Section 3.16, *Recreation*.

Although there are no libraries in the immediate study area, there are a number of libraries in the surrounding communities. The closest libraries to the Project include the Kellogg Library at Cal State San Marcos, the San Marcos Branch Public Library, the Carlsbad City Library, and the Escondido Public Library, each located approximately 2.5 miles from Project elements. These libraries provide reading events for children, adult literacy programs, bookmobiles, and after-hours access to reading materials through the internet (County of San Diego, 2018c).

Emergency Medical Services

The nearest emergency medical center to the Project is the Palomar Medical Center Escondido, currently located on a 56-acre campus (2185 Citracado Parkway) in Escondido. An expansion of this existing facility is planned to occur in phases to ultimately double the size of the facility to meet the needs to the growing population in North San Diego County (Palomar Health, 2018).

3.15.2 Regulatory Setting

Federal/State

There are no federal or State regulations related to public services that would be applicable to the Project.

Local

San Diego County General Plan

The San Diego County General Plan Land Use and Safety Elements contain the following goals and policies relevant to provision of public services for unincorporated areas of the Project. (County of San Diego, 2011).

Goal LU-12: Infrastructure and Services Supporting Development. Adequate and sustainable infrastructure, public facilities, and essential services that meet community needs and are provided concurrent with growth and development.

Policy LU-12.3: Infrastructure and Services Compatibility. Provide public facilities and services that are sensitive to the environment with characteristics of the unincorporated communities. Encourage the collocation of infrastructure facilities, where appropriate.

Policy LU-12.4: Planning for Compatibility. Plan and site infrastructure for public utilities and public facilities in a manner compatible with community character, minimize visual and environmental impacts, and whenever feasible, locate any facilities and supporting infrastructure outside preserve areas.

Goal S-2: Emergency Response. Effective emergency response to natural or human-induced disasters that minimizes the loss of life and damage to property, while also reducing disruptions in the delivery of vital public and private services during and following a disaster.

Policy S-2.2: Participation in Mutual Aid Systems. Maintain participation in local, regional, State, and national mutual aid systems to ensure that appropriate resources are available for response and recovery during and following a disaster.

Goal S-3: Minimized Fire Hazards. Minimize injury, loss of life, and damage to property resulting from structural or wildland fire hazards.

Policy S-3.5: Access Roads. Require development to provide additional access roads when necessary to provide for safe access of emergency equipment and civilian evacuation concurrently.

Goal S-5: Regional Fire Protection. Regional coordination among fire protection agencies.

Goal S-6: Adequate Fire and Medical Services. Adequate levels of fire and emergency medical services (EMS) in the unincorporated County.

City of Carlsbad General Plan

The City of Carlsbad's General Plan contains the following goals and policies that pertain to the provision of public services (City of Carlsbad, 2015).

Goal 6-G.3: Maintain safety services that are responsive to citizens' needs to ensure a safe and secure environment for people and property in the community.

***Policy 6-P.28*:** Maintain adequate Police and Fire Department staff to provide adequate and timely response to all emergencies.

***Policy 6-P.29*:** Ensure Fire Department facilities and service are provided consistent with the minimum performance standards of the city's Growth Management Plan.

***Policy 6-P.32*:** Consider site constraints in terms of hazards and current levels of emergency service delivery capabilities when making land use decisions. In areas where population or building densities may be inappropriate to the hazards present, take measures to mitigate the risk of life and property loss.

***Policy 6-P.38*:** Inform the public and contractors of the danger involved and the necessary precautions that must be taken when working on or near pipelines or utility transmission lines.

***Policy 6-P.39*:** Ensure all new development complies with all applicable regulations regarding the provision of public utilities and facilities.

City of Escondido General Plan

The Community Protection Element of the City of Escondido's General Plan contains the following goals and policies that pertain to the provision of public services (City of Escondido, 2012).

Goal 2: Protection of life and property through adequate fire protection and emergency medical services.

***Fire Protection Policy 2.2*:** Provide Fire Department response times for no less than 90 percent of all emergency responses with engine companies by achieving the following service standard:

- Provide an initial response time of seven and one-half (7½) minutes for all structure fire and emergency Advanced Life Support (ALS) calls and a maximum response time of ten (10) minutes for supporting companies in urbanized areas of the city.

***Fire Protection Policy 2.3*:** Provide a minimum total of seven (7) fire stations each sized and staffed with facilities, services and equipment to meet current and anticipated needs including, but not limited to, engine and truck units and crews and Advanced Life Support (ALS) staff prior to General Plan build out to the extent economically feasible.

Goal 3: Protection of life and property, and enforcement of law that enhances personal safety in the community.

***Police Services Policy 3.1*:** Regularly review and implement appropriate plans for police protection and services that address staffing, facility needs, and service goals to ensure that the community's needs are met.

***Police Services Policy 3.2*:** Maintain an initial response time for Priority 1 calls of no more than five (5) minutes and an initial response time for Priority 2 calls of no more than six and one-half (6½) minutes. Constantly review these standards to ensure their adequacy and appropriateness in consideration of resource availability.

***Police Services Policy 3.3*:** Maintain adequate levels of sworn officers and civilian personnel to support law enforcement operations based on community needs in order to meet response time standards.

City of Vista General Plan

The Public Safety, Facilities, and Services Element of the City of Vista's General Plan contains the following goals that pertain to the provision of public services (City of Vista, 2011).

PSFS Goal 2: Prepare for and provide adequate and effective emergency response services to respond to natural and human-made emergencies and disasters, and acts of terrorism.

PSFS Goal 5: Protect life, property, and the environment from structural, wildland-urban, and wildland fire damage.

PFSF Goal 12: Continue to provide fire protection and related emergency services to protect persons and property from fire and other community hazards.

PSFS Goal 14: Continue to provide an adequate level of law enforcement services to protect persons and property from criminal activity and provide a safe community environment.

PSFS Goal 15: Provide and maintain public facilities, including the Civic Center, maintenance and warehouse facilities, as well as City welcome signs and other community identifiers, to serve the citizens of Vista and meet their existing and anticipated needs.

City of San Marcos General Plan

The Safety Element of the City of San Marcos' General Plan includes the following goals and policies that pertain to the provision of public services (City of San Marcos, 2012).

***Policy S-3.2*:** Provide sufficient level of fire protection service to reduce risk from urban and wildland fire. Advocate and support regional coordination among fire protection and emergency service providers.

Goal S-5: Establish and maintain an effective emergency response program to respond to disasters and maintain continuity-of-life support functions during an emergency.

***Policy S-5.2*:** Continue to enhance and strengthen communication and coordinate participation among and within public agencies, citizens, school districts, water districts, utilities, non-profit organizations, business, and industry to foster a vested interest in implementation.

Goal S-6: Provide neighborhood safety through effective law enforcement.

***Policy S-6.1*:** Continue to maintain demand-based law enforcement service levels to reduce the risk of criminal activity.

3.15.3 Applicant Proposed Measures

The following measure pertaining to public services has been proposed by SDG&E and would be implemented for the Project.

APM TRA-2: The Applicant will coordinate with local emergency response agencies during construction within existing public roadways to allow safe passage and access by emergency vehicles and equipment.

3.15.4 Environmental Impacts

Discussion

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

a.i) Fire protection: *LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED*.

The Project would not include or require the provision of new or altered fire protection facilities; nor would the Project include or require increases in staff levels for local or regional fire protection. Project construction would include installation of power poles and structures to support a new transmission line between San Marcos and Escondido; some segments of the Project would cross through canyons prone to wildfires, as identified in Section 3.20, *Wildfire*. As with operation and maintenance of the existing transmission lines in the study area, operation of the Project could involve a risk of situations requiring fire protection, should accidents involving the new transmission line and associated structures occur. Project maintenance would include maintaining required vegetation clearances and other fire safety rules in compliance with CPUC General Order 95, and applicable fire safety standards, as outlined in Section 2.6.3, *Pole Structure Brushing and Tree Trimming*. Measures including vegetation surveys, management, and clearance would take place along the Project alignment to reduce Project-related fire risks. As stated in Section 3.20, *Wildfire*, SDG&E has prepared a fire prevention plan in compliance with CPUC Decision 12-01-032 (Fire Safety Order) and Standard 1.E of General Order 166. Standard 1.E requires SDG&E to prepare and submit plans to minimize the risk of catastrophic wildfire posed by overhead electric lines and equipment during extreme fire-weather events.

Additionally, in the event of an emergency, APM TRA-2 would support safe passage and access by emergency response vehicles during construction. Such measures would support the maintenance of appropriate emergency response times, if an accident in the study area of the Project were to occur.

As identified in Section 3.20, *Wildfire*, construction and operation of the Project could increase risks associated with wildfires in a fire prone region, and impacts could be significant. However, through the implementation of SDG&E's Electric Standard Practice 113.1, Operations and Maintenance Wildland Fire Prevention and **Mitigation Measure WIL-1** fire risks and safety impacts would be reduced to a less-than-significant level by including on-site fire prevention measures during construction.

> **Mitigation Measure WIL-1: Fire Safety.** See full text of this Mitigation Measure in Section 3.20, *Wildfire*, Question b.
>
> **Significance after Mitigation:** Implementation of Mitigation Measure WIL-1 would include requirements for consultation with emergency services providers and develop a Project-specific construction fire prevention plan. Mitigation Measure WIL-1 would also

ensure that resources for fire protection and emergency services would be in place to address possible risks associated with the use of equipment during the construction period. This impact would be reduced to a less-than-significant level.

SDG&E's BMPs for safety and fire prevention including vegetation maintenance along the Project alignment along with appropriate maintenance of the Project structures would ensure ongoing safe operation of the Project. The Project would comply with tree and power line clearance requirements per Public Resources Code Section 4292 and CCR Title 14, Section 1254, such that the utility corridors would provide a fire break in the event of a wildfire. As described in Section 3.20, *Wildfire*, during construction, SDG&E would implement standard fire prevention and protection measures, including but not limited to: carrying emergency fire suppression equipment, conducting fire prevention outreach and safety training, restricting smoking and idling of vehicles, engaging in fire threat and risk area mapping, building resiliency (including a Wood-to-Steel program), implementing appropriate field practice guidelines, and monitoring the Fire Potential Index. Operational practices to reduce the risk of fires are in place, as SDG&E standard operating procedures include regular inspection and vegetation clearance to reduce the risks associated with the Project structures.

Increases in long-term demand for fire protection services are typically associated with substantial increases in population. The Project would temporarily employ up to 80 construction workers; operation and maintenance activities would not require increases in permanent staff. Neither construction nor operation and maintenance would increase population beyond what is projected to occur in the region, as discussed in Chapter 2, *Project Description*. Moreover, with implementation of Mitigation Measure WIL-1, the Project would not generate substantial increased risks such that service ratios, response times, or other performance objectives for fire protection would be compromised. Access routes for new infrastructure would be maintained to be accessible in the event of an emergency, consistent with APM TRA-2, the goals outlined in the County of San Diego's General Plan, and in the general plans of the municipalities in the study area, as stated in the regulatory setting. Thus, the Project would not result in the need for new or expanded fire stations. Therefore, impacts under Question a.i would be less than significant with the incorporation of Project mitigation.

a.ii) Police protection: ***LESS THAN SIGNIFICANT IMPACT*.**

Project construction would include staging and use of materials and heavy equipment that could theoretically generate minor increases in crime or accidents in the local area. Such incidents and/or accidents could lead to a negligible increase in the need for police, sheriff, or other emergency service personnel during the timeframe for construction. However, this possible increase in the need to public safety support would be temporary, limited to the 11-month duration of construction, and would not be expected to result in the need for new police facilities to maintain acceptable levels of service. Project construction would require the use of guard structures for overhead conductor crossings potentially impacting traffic conditions and thereby delaying public safety response for various roadways in all segments, in addition to lane closures along South San Marcos Boulevard, to facilitate pole installation. Such traffic control measures, as outlined in Section 3.17, *Transportation and Traffic*, could present challenges for acceptable public safety response times. However, per APM TRA-2, the applicant would coordinate with local emergency

response agencies during construction within existing public roadways to allow safe passage and access by emergency vehicles and equipment. The Project would not increase population beyond what is projected to occur in the region, nor would the Project include nor require new or expanded public safety facilities. Impacts would be temporary, mainly associated with construction, and less than significant.

a.iii) Schools: *NO IMPACT.*

The Project would not include or require the construction of new schools or expansion of existing schools. Although at the peak of construction, the Project would employ up to 80 construction workers, operation and maintenance of the Project would not result in any long-term staff increases. Given that an increased demand for public school services is ordinarily associated with population increases and the Project neither includes housing nor would it require long-term staff increases, no increases in local population beyond what is already projected for the region would occur. Therefore, physical impacts associated with new or existing schools would not result from construction of the Project. There would be no impact.

a.iv) Parks: *NO IMPACT.*

An increased need for parks is usually associated with increases in population. The Project would not increase population beyond what is already projected to occur in the region. No housing is proposed to be constructed as part of the Project. Although the study area is rapidly increasing in population, the County of San Diego and the City of San Marcos are providing a sufficient number of parks to the expanding communities, consistent with the goals outlined in Section 3.16, *Recreation*. The Project would not add to nor result in the need for construction of additional parks or expanded parks in the study area. There would be no impact.

a.v) Other public facilities: *NO IMPACT*.

As previously stated, the Project would not increase the population beyond levels already projected to occur in the region. No other public facilities such as libraries or emergency medical facilities are proposed or would be required as a result of construction and operation of the Project. There would be no impact.

3.15.5 References

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3.16 Recreation

		Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
16.	**RECREATION:**				
a)	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b)	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒
c)	Would the project disrupt access to existing recreational opportunities?	☐	☒	☐	☐

In order to assess impacts on recreation, the Project's construction schedule and workforce was reviewed in Section 2.5, *Project Construction* of the Project Description to determine whether the Project would be likely to increase population potentially contributing to an increase in the use of the region's parks, trails, and other recreational facilities during construction and operation of the Project. In addition to the checklist questions in Appendix G of the CEQA Guidelines, an additional question was added to assess the potential for impacts from disruption of existing recreational resources:

c) Would the project disrupt access to existing recreational opportunities?

Existing recreational facilities including parks and open space resources that could be affected by the Project are discussed by jurisdiction below. For the purposes of evaluation of recreational resources, the study area is defined as the footprint of all Project components including all areas of temporary and/or permanent ground disturbance as well as neighboring parks, open space, and other lands used for recreational purposes within 0.5 mile of the Project alignment.

3.16.1 Environmental Setting

No federal or State lands provide recreational opportunities in close proximity to the Project. The closest lands owned or managed by the federal government include the Cleveland National Forest located approximately 18 miles northeast of the Project. The closest State recreational lands to the Project include South Carlsbad State Beach, located approximately 6 miles west of Segment 2, and San Pasqual Battlefield State Historic Park, located 8 miles east of the Escondido Substation.

County of San Diego Parks and Preserves

The County of San Diego operates and maintains over 100 parks, preserves, historic sites, and other recreational sites throughout the County providing hiking, cycling, horseback riding, backpacking, water sports, and other activities in an area covering more than 50,000 acres (County of San Diego, 2018a).

In addition to parks, numerous County preserves and protected open space areas are utilized for hiking, mountain biking, and other outdoor activities. Del Dios Highlands County Preserve, located 2 miles south of the Escondido Substation, covers an area of 774 acres of open space providing trails between Del Dios and Elfin Forest. This preserve is part of the County of San Diego's Multiple Species Conservation Program (MSCP), formed in a partnership with Escondido Creek Conservancy and the San Dieguito River Park Joint Powers Authority (County of San Diego, 2018b).

Located just west of Del Dios Highland Preserve and south of Segment 3 is the 784-acre Elfin Forest Ecological Reserve, a conservation area owned by San Diego County Water Authority and managed by the Olivenhain Municipal Water District. The Elfin Forest Ecological Reserve contains 11 miles of trails, and allows public use for hiking, mountain biking, and horseback riding (Olivenhain Municipal Water District, 2018).

Rancho La Costa Preserve is comprised of 1,035 acres of non-contiguous protected areas in Carlsbad and San Marcos. The southern section of Segment 2 would cross through this preserve. Sage Hill Preserve, also part of the protected lands of the County's MSCP, does not include recreational lands open to the public (County of San Diego SanGIS, 2014). Overhead work, reconductoring, and access roads in Segment 3 would cross through the northern portion of this preserve.

City Parks

There are numerous parks and recreational facilities owned and managed by the municipalities in the study area, as shown in **Table 3.16-1**. Additionally, there are several private recreational facilities in the study area. Any city parks within the study area potentially affected by the Project are located within the City of San Marcos. There are no such facilities in the cities of Escondido, Carlsbad, or Vista. Parks and recreational facilities in the study area are described in more detail below.

The City of San Marcos currently has more than 340 acres of developed parks and other recreational facilities with plans for future expansion of these recreational facilities to approach 700 acres, in addition to nearly 2,500 acres of open space preserves located in the City (City of San Marcos, 2012).

Discovery Lake/ Lakeview Park, located approximately 0.4 mile south of Segment 1 in San Marcos, offers a connection to trails, shore fishing, and picnic facilities. Simmons Family Park, a 6-acre community park, also offers trail connections, picnic areas, and sports facilities, and is located within 0.25 mile of the proposed new pier foundation, staging, and access road sites along Segment 2. San Elijo Park provides an off-leash dog park, two playgrounds, three lighted ball fields, a community building, and water play, and connects to trails. The park is located on San Elijo Road, approximately 0.45 mile north of Segment 3. Questhaven Park, a small private community park, also connects to trails in the study area near Segment 3.

TABLE 3.16-1
PARKS AND RECREATIONAL TRAILS IN THE STUDY AREA

Park or Trail	Location	Nearest Project Component	Ownership
Discovery Lake/ Lakeview Park	San Marcos	Segment 1	City of San Marcos
Simmons Family Park	San Marcos	Segment 2	City of San Marcos
The Laurels Park	Acacia Drive San Marcos	Segment 2	City of San Marcos
Questhaven Park	San Marcos	Segment 3	Private
Bradley Park	San Marcos	Segment 1	City of San Marcos
San Elijo Park	South San Marcos	San Marcos Substation/ Segment 3	City of San Marcos
St. Marks Golf Club	Lake San Marcos	San Marcos Substation/ Segment 1	Private
Old Creek Ranch Trail	Via Del Corvo to Melrose Drive	Segment 2	City of San Marcos/ Carlsbad
Rancho Dorado Trail	White Sands Drive south to S. Santa Fe Road connects to Simmons Park	Segment 2	City of San Marcos
Rancho Santa Fe Trail	Rancho Santa Fe Road	Segment 1	City of San Marcos
Carrillo Trail	West San Marcos Blvd across White Sands Drive west to Carlsbad	Segment 1 shared access route	City of San Marcos
Elfin Forest Trail	Elfin Forest Road Southern border of San Marcos, unincorporated San Diego County	Segment 2	County of San Diego
Canyon Trail	South San Marcos	Segment 2	City of San Marcos
Quarry Trail	South San Marcos	Segment 2	City of San Marcos
Questhaven Trail	South San Marcos	Segment 3	City of San Marcos

SOURCE: City of San Marcos, 2012.

Trails

With one exception noted below, any recreational trails within the study area potentially affected by the Project are located within the City of San Marcos. There are no such facilities in the cities of Escondido, Carlsbad, or Vista.

Recreational trails connecting rural open spaces and urban areas span the study area. The City of San Marcos Trails Guide identifies existing and proposed trails and bikeways, many of which are within the study area. Recreational trails used by hikers, cyclists, and equestrians, provide public access to natural landscapes, allow for the protection wildlife corridors, and enable pedestrian linkages between communities (City of San Marcos, 2007). Bicycle facilities in the study area including several Class II and III routes with a shared roadside lane are discussed in Section 3.17, *Transportation and Traffic*. Numerous existing trails in the study area are adjacent or near Project elements including trails identified below.

Near Segment 2, Rancho Dorado is a wide, soft surface trail which provides a route connecting the habitat corridor off of West Sands Drive to Simmons Family Park in San Marcos (City of San Marcos, 2007). Old Creek Ranch/Canyon Trail connects southeast Carlsbad to the City of San Marcos' San Elijo Park, located on San Elijo Road. San Elijo Trail is a combination of urban (paved surfaces), and soft surfaces also along San Elijo Road. Elfin Forest Trail is a soft surface trail extending along Elfin Forest Road to the unincorporated county lands south of Segment 2. Questhaven Trail is a soft surface trail extending from San Elijo Road to Questhaven Park and south beyond the San Marcos city limits into unincorporated San Diego County.

3.16.2 Regulatory Setting

Federal/State

There are no federal or State regulations related to recreation that would be applicable to the Project.

Local

County of San Diego General Plan

The Conservation and Open Space Element of the County of San Diego's General Plan includes the following goals and policies that pertain to recreation (County of San Diego, 2011).

> **Goal COS-21: Park and Recreational Facilities.** Park and recreation facilities that enhance the quality of life and meet the diverse active and passive recreational needs of County residents and visitors, protect natural resources, and foster an awareness of local history, with approximately ten acres of local parks and 15 acres of regional parks provided for every 1,000 persons in the unincorporated County.

City of Carlsbad General Plan

The Conservation and Open Space element of the City of Carlsbad's General Plan includes the following goals and policies that pertain to recreational resources (City of Carlsbad, 2015).

> **Goal 4-G.5:** Maintain a diversified, comprehensive system of open space for outdoor recreation, including, but not limited to: parks; beaches; areas for organized sports; connecting corridors containing trails; water recreation areas (beaches, lagoons, lakes); unique conservation areas for nature study; and, semi-developed areas for camping.

City of Escondido General Plan

The Community Health and Services and Resource Conservation elements of the City of Escondido's General Plan includes goals and policies that pertain to recreational resources (City of Escondido, 2012).

> **CHS Goal 2:** A complete system of parks and recreational facilities and programs to serve all users.

City of San Marcos General Plan

The Parks, Recreation and Community Health Element of the City of San Marcos' General Plan includes the following goals and policies pertaining to recreational resources (City of San Marcos, 2012).

Goal PR-1: Plan for, acquire, develop, and maintain a system of local parks connected through an integrated network of trails and high quality recreational facilities.

***Policy PR-1.1*:** Develop and maintain a complete system of public parks and recreational amenities that provide opportunities for passive and active recreation at a minimum standard of 5 acres per 1,000 residents. Parks, trails and recreational facilities will enhance community livability, public health, and safety; should be equitably distributed throughout the City; and be responsive to the needs and interests of residents, employees, and visitors.

***Policy PR-1.3*:** Ensure that the development of parks, trails, and recreation facilities and services keeps pace with development and growth within the City.

***Policy PR-1.4*:** Promote increased access to parks and open spaces, pedestrian- and bike-oriented routes to parks and open space, greening of public rights of-way, and a variety of active and passive uses of parks and open space.

Goal PR-2: Become a leader in building healthy communities by supporting recreation and community service programs that promote wellness, fun, lifelong learning, skill development, personal enrichment, and positive relationships.

***Policy PR-2.2*:** Implement the trail network per the Trails Master Plan to increase opportunities for physical activity (e.g., walking, biking), healthy lifestyles, and to reduce reliance on cars.

City of Vista General Plan

The following goals and policies pertaining to recreation are identified in the Resource Conservation and Sustainability Element of the City of Vista's General Plan (City of Vista, 2011).

RCS Goal 9: Continue to provide parkland to effectively serve the recreational needs of the community.

***RCS Policy 9.3*:** Continue to work with the Parks and Recreation Commission, citizens, organizations, volunteer groups, and community partners to identify and provide needed park, recreation, trail, and open space amenities that address changes in the City' s population and demographics, based on the Park, Recreation, Open Space, and Greenway Guidelines (Guidelines) that were developed by the National Recreation and Park Association (NRPA), and pursuant to the Quimby Act.

***RCS Policy 9.2*:** Provide three acres of community parks per 1,000 residents; two acres of neighborhood parks per 1,000 residents, and an overall average park standard of 4. 49 acres per 1,000 residents

RCS Goal 10: Continue to provide and maintain recreational facilities that serve the needs and enjoyment of residents

3.16.3 Applicant Proposed Measures

SDG&E has proposed the following Applicant Proposed Measures (APMs) to address impacts on recreational resources attributable to Project construction, operations, and/or maintenance.

APM PS-1: SDG&E will provide the public with advance notification of construction activities. Concerns related to dust, noise, and access restrictions with construction activities will be addressed within this notification.

APM PS-2: All construction activities will be coordinated with the property owner or authorized agent for each affected park, trail, or recreational facility prior to construction in these areas.

APM PS-3: As needed, signs will be posted directing vehicles to alternative park access and parking, if available, in the event construction temporarily affects parking near trailheads.

APM PS-4: All parks, trails, and recreational facilities that are physically impacted during construction activities and are not directly associated with the new permanent facilities, will be returned to an approximate pre-construction state, while still allowing for SDG&E to safely operate and maintain the facilities, following the completion of the Project. SDG&E will replace or repair any damaged or removed public equipment, facilities, and infrastructure in a timely manner.

3.16.4 Environmental Impacts

Discussion

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated: *LESS THAN SIGNIFICANT IMPACT.*

Construction

Temporary access restrictions associated with the Project's construction could lead to limits in the public use of recreational facilities, such as parks and trailheads, adjacent to the Project. Such Project-related closures, obstructions, and related impacts could inadvertently lead to a temporary increase in the public's use of other recreational areas in the region during the 11-month construction period.

A temporary increase in use of other, unaffected existing facilities could lead to short-term indirect impacts on parks and trails during construction. However, the region provides an array of opportunities for public recreation, so it is reasonable to expect that increased use resulting from Project-related displacement would be spread among several parks and trails such as Discovery Lake, Double Peak, or Elfin Forest Recreational Reserve, among others during construction, and the potential for substantial physical deterioration to occur at any one location would be negligible. Therefore, impacts related to an increased use of these recreational facilities would be less than significant.

Operation

Operation and maintenance activities would occur near recreational areas providing trails and parks between the cities of Carlsbad and San Marcos in Segment 2. Segment 2 would include installation of new power line structures parallel to an existing power line, both within SDG&E right-of-way. Overall, Project operation and maintenance would occur in the same manner as existing procedures, with possible minor increases to maintenance requirements along Segment 2 due to the new Project structures. As Segment 2 would be co-located with an existing power line within the existing utility right-of-way, operation and maintenance activities would be similar to existing activities and would have a less-than-significant impact on recreational resources related to vegetation management and other maintenance of the utility corridor in close proximity to trails.

As discussed in Section 2.6, *Operation and Maintenance*, the Project would not result in substantial long-term increases in area residents or employees beyond what is projected to occur in the region. Therefore, future operation and maintenance activities would not result in a measurable change in the existing level of use of neighborhood and regional parks or other recreational facilities, and so would not contribute to substantial physical deterioration of those facilities. Impacts related to operation of the Project would also be less than significant.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment: *NO IMPACT.*

The Project would not require or include recreational facilities, nor would it increase population, necessitating construction or expansion of existing recreational facilities in order to maintain the recreational service goals defined in county or city policies. Therefore, the Project would have no impact.

c) Would the project disrupt access to recreational opportunities: *LESS THAN SIGNIFICANT IMPACT WITH MITIGATION.*

Segments 2 and 3 would include the use of several temporary work areas in close proximity to trails, such that temporary disruptions in access to existing recreational resources could occur. Temporary closures and/or use of guard structures and flaggers would occur along portions of Rancho Dorado, Carrillo, Canyon, Quarry, Copper Creek, Rancho Santa Fe, Elfin Forest, and Old Ranch Creek trails (SDG&E, 2017). Per APMs PS-1 and PS-3, SDG&E would provide public notification identifying access restrictions. As explained in Section 2.5.1, actual construction activity at any given point along the segments would occur in distinct periods of activity lasting no longer than three weeks at a time for each construction phase (i.e., construction activities would not occur constantly along the entire Project alignment for the full 11-month construction period). APM PS-4 stipulates that physically impacted recreational facilities would be returned substantially to their pre-construction state at the conclusion of construction. Therefore, direct and indirect impacts on recreational access would be temporary and would be limited to at most three-week durations during the construction period. Because these disruptions would be short-term and public notice would be provided in advance, they would not affect substantial numbers of people, and users would have other options for recreational trail use nearby. Impacts would be less than significant.

Additionally, construction would cause noise and vibration resulting from the use of heavy equipment near public access trailheads and parks listed in Table 3.15-1. Impacts on trail users are not considered significant because the nature of recreational trail use is such that users would only be within the area affected by construction noise and vibration for a relatively short period before passing out of the audible range. However, ongoing construction noise and vibration occurring at or near a park could result in significant access impacts because park users would be subject to construction noise and vibration for the entire duration of their activities at an affected park. Implementation of **Mitigation Measure NOI-1**, which requires a construction noise reduction and mitigation plan, and **Mitigation Measure NOI-2,** which requires a blasting plan, would reduce impacts to a less-than-significant level.

> **Mitigation Measure NOI-1: Construction Noise Reduction and Mitigation Plan.** See full text of this Mitigation Measure in Section 3.13, *Noise*, Question a.
>
> **Mitigation Measure NOI-2: Blasting Plan.** See full text for this Mitigation Measure in Section 3.13, *Noise*, Question a.
>
> **Significance after Mitigation:** With the implementation of construction noise and vibration reduction measures in Mitigation Measures NOI-1 and NOI-2, recreational access impacts on park users would be reduced to a less-than-significant level.

3.16.5 References

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Olivenhain Municipal Water District, 2018. Elfin Forest Recreational Reserve. Available online at: https://elfinforest.olivenhain.com/. Accessed July 18, 2018.

San Diego Gas and Electric Company, 2017. Proponents Environmental Assessment for the TL 6975 San Marcos to Escondido Project: CPUC Application for a Permit to Construct 17-11-010.

3.17 Transportation and Traffic

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
17. TRANSPORTATION/TRAFFIC — Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☒	☐	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☒	☐
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☒	☐	☐

The Governor's Office of Planning and Research (OPR) has proposed, and the California Natural Resources Agency has adopted, revisions to CEQA Guidelines Appendix G that ask whether a land use project would "conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(1)" (Natural Resources Agency, 2018). New Section 15064.3(b)(1) in turns ask whether the project would exceed applicable vehicle miles traveled (VMT) thresholds. However, statewide application of that new section is not required until January 1, 2020 (OPR, 2017). Further, none of the study area jurisdictions have adopted VMT thresholds at this time. Therefore, this IS/MND uses the checklist questions set forth in the previously adopted version of CEQA Guidelines Appendix G for the analysis of transportation and traffic impacts.

The analysis included in this section was developed primarily based on project-specific construction and operational features described in Chapter 2, *Project Description*. Project operation and maintenance activities would be very similar to existing conditions and is not expected to result in an increase in vehicle trips. As such, the analysis and discussion below is focused on the potential construction impacts resulting from implementation of the Project, while the impact evaluation for operation and maintenance activities is predominantly qualitative in nature. For the purposes of the transportation and traffic analysis, the study area is defined for each of the three segments as follows:

- **Segment 1 Rebuild:** this 1.8-mile segment mostly follows West San Marcos Boulevard in the City of San Marcos, beginning at Discovery Street/La Sombra Drive in the east and the San Marcos/ Carlsbad city limit to the west, where West San Marcos Boulevard turns into Palomar Airport Road;
- **Segment 2 New Build:** beginning at the western terminus of Segment 1, Segment 2 is a 2.8-mile segment in the City of San Marcos bounded by the San Marcos/Carlsbad city limit to the west, Palomar Airport Road to the north, and San Elijo Road to the south and east;
- **Segment 3 Reconductoring/Re-energizing:** this 7.4-mile segment runs from the City of San Marcos in the west to the City of Escondido to the east, with much of the alignment running across unincorporated San Diego County. Beginning at the southern terminus of Segment 2, Segment 3 is bounded by San Elijo and Elfin Forest roads to the south and west, West Mission Road to the north, and Citracado Parkway and Enterprise Street to the east.

3.17.1 Environmental Setting

Roadway Network

Regional transportation around the study area is facilitated primarily by Interstate 15 (I-15) and State Route (SR) 78. I-15 is a major north-south route in the Interstate Highway System that runs between San Diego and the Canadian Border in Montana; it is located less than 1.0 mile east of the eastern terminus of Segment 3 (Escondido Substation). SR 78, also known as Ronald Packard Parkway, is an east-west route of the California state highway system located 1.75 miles north and east of the eastern terminus of Segment 1 (San Marcos Substation) and 1.2 miles north of the eastern terminus of Segment 3 (Escondido Substation) via local roadways. SR 78 connects I-5 in Oceanside to I-10 near the Arizona border. These roadways, which are under the jurisdiction of the California Department of Transportation (Caltrans), would be used to access the Project during construction and operation. The local transportation system in the study area includes roads maintained by the City of San Marcos, the City of Escondido and the County of San Diego. While portions of the Project would be located in the cities of Vista and Carlsbad, no components or work would occur within roadways maintained by these cities. **Table 3.17-1** summarizes the characteristics of the relevant regional an d local roadways in the study area.

Existing Roadway Levels of Service

Level of service (LOS) is a qualitative measure that describes operational conditions as they relate to the traffic stream and perceptions by motorists and passengers, in terms of factors such as speed and travel time, delays, freedom to maneuver, traffic interruptions, comfort, convenience, and safety. There are six levels of operational service, given letter designations from LOS A to LOS F, with LOS A representing the best operating conditions (free-flow) and LOS F the worst (severely congested flow with high delays). The ratio of a road's traffic volume to its capacity is computed, and the resulting volume/capacity (v/c) ratio is assigned an LOS grade, indicative of traffic conditions (see **Table 3.17-2** for the range of v/c ratios for each LOS, and Table 3.17-1 for existing levels of service on study area roadways).

TABLE 3.17-1
SUMMARY OF STUDY AREA ROADWAY CHARACTERISTICS

Roadway Segment	Jurisdiction	Classification	No. of Lanes	Average Daily Traffic Volume[1]	Level of Service[2]
I-15 at SR 78 Junction	Caltrans	CMP Freeway	12	243,000	D
SR 78 at I-15 Junction	Caltrans	Highway	8	168,000	E
Discovery Street at San Marcos Boulevard	City of San Marcos	Arterial	4	9,900	A
San Marcos Boulevard/Palomar Airport Road at Rancho Santa Fe Road	City of San Marcos	Arterial	6	42,100	C
Rancho Santa Fe Road at San Marcos Boulevard	City of San Marcos	Arterial	6	33,100	B
San Elijo Road at Rancho Santa Fe Road	City of San Marcos	Arterial	4	22,500	B
Elfin Forest Road	County of San Diego	Collector	2	2,200	A
Country Club Drive at Citracado Parkway	City of Escondido	Local Collector	2	3,400	B
Harmony Grove Road at Enterprise Street	City of Escondido	Local Collector	2	9,000	C
Auto Park Way at Hale Avenue	City of Escondido	Collector	2	25,000	E

NOTES:

1 Average Daily Traffic (ADT) values given are the most current year (from range of 2013-2016) and correspond with each listed roadway at the listed cross street. Where ADT values were available for multiple segments for a given roadway, ADT values are given for those segments closest to the proposed study area.

2 See following page for definition. Where published LOS values are used, LOS values represent only segments in the vicinity of the proposed Project.

3 The values for this segment were taken from a segment of Camino Del Norte directly east of Camino San Bernardo.

CMP = Congestion Management Program

SOURCES: Caltrans, 2017; SANDAG, 2013; Florida Department of Transportation, 2012

TABLE 3.17-2
LEVEL OF SERVICE DEFINITIONS

LOS	v/c Ratio	Description
A	0.00 – 0.60	Free-flow conditions with unimpeded maneuverability. Stopped delay at signalized intersections is minimal.
B	0.61 – 0.70	Reasonably unimpeded operations with slightly restricted maneuverability. Stopped delays are not bothersome.
C	0.71 – 0.80	Stable operations with somewhat more restrictions in making mid-block lane changes than LOS B. Motorists will experience appreciable tension while driving.
D	0.81 – 0.90	Approaching unstable operations where small increases in volume produce substantial increases in delay and decreases in speed.
E	0.91 – 1.00	Operations with significant intersection approach delays and low average speeds.
F	>1.00	Operations with extremely low speeds caused by intersection congestion, high delay, and adverse signal progression.

SOURCE: Transportation Research Board, 2000

Bicycle Facilities

The cities of Carlsbad, Escondido, and San Marcos each have bicycle plans to address design, policy, program, and infrastructure needs pertaining to this specific mode of transportation. Additionally, the County of San Diego has a detailed bicycle plan, certain community bicycle plans, and priority projects within the county (see Section 3.17.2, *Regulatory Setting*). Bicycle facilities in all jurisdictions are classified as Class I, Class II, or Class III facilities, as defined by the State in Streets and Highway Code Section 890.4. Class I facilities are bike paths with exclusive right-of-way for use by bicyclists or pedestrians. Class II facilities are bike lanes striped with the paved areas of roadways and established for the preferential use of bicycles, while Class III facilities are signed bike routes that allow bicycles to share streets or sidewalks with vehicles or pedestrians.

No Class I bike routes would be affected by the Project. There are Class II and Class III bike routes on Discovery Street, San Marcos Boulevard/Palomar Airport Road, Rancho Santa Fe Road, San Elijo Road, Morgan Trails, Elfin Forest Road, Citracado Parkway, and Auto Park Way within the study area. Trails with designated bike use near the Project are discussed in further detail in Section 3.15, *Recreation*.

Pedestrian Facilities

Along Segment 1 where the Project alignment runs adjacent and parallel to public roadways, sidewalks are present on both sides of West San Marcos Boulevard and on Discovery Street between the San Marcos Substation and the Valley Christian School. No sidewalks are provided along the portion of Segment 1 that runs adjacent and parallel to Discovery Street between the Valley Christian School and West San Marcos Boulevard.

In addition, there are a number of trails in the study area of the Project maintained by the County of San Diego, as well as the cities of San Marcos, Escondido, Carlsbad, and Vista. Recreational trails connecting rural open spaces and urban areas span the study area. The City of San Marcos Trails Guide identifies existing and proposed trails and bikeways, many of which are within the

study area. Recreational trails used by hikers, cyclists, and equestrians, provide public access to natural landscapes, allow for the protection wildlife corridors, and enable pedestrian linkages between communities (City of San Marcos, 2007). Numerous existing trails in the study area are adjacent or near Project elements including trails identified below.

Near Segment 2, Rancho Dorado is a wide, soft surface trail that provides a connection to the habitat corridor off of West Sands Drive to Simmons Family Park in San Marcos (City of San Marcos, 2007). Old Creek Ranch/Canyon Trail connects southeast Carlsbad to the City of San Marcos' San Elijo Park, located on San Elijo Road. San Elijo Trail is a combination of urban (paved surfaces), and soft surfaces also along San Elijo Road. Elfin Forest Trail is a soft surface trail extending along Elfin Forest Road to the unincorporated county lands south of Segment 2. Questhaven Trail is a soft surface trail extending from San Elijo Road to Questhaven Park and south beyond the San Marcos city limits into unincorporated San Diego County.

Parking Facilities

Along Segment 1 where the Project alignment runs adjacent and parallel to public roadways, on-street parking is permitted on Discovery Street between the San Marcos Substation and the Valley Christian School. On-street parking is not permitted along the portion of Segment 1 that runs adjacent and parallel to Discovery Street between the Valley Christian School and West San Marcos Boulevard, or along West San Marcos Boulevard. Off-street parking facilities located along the Project alignment include the Albertson's parking lot on West San Marcos Boulevard (Segment 1) and a parking lot serving a commercial building at 1998 Citracado Parkway (Segment 3).

Vehicle parking for construction workers and construction equipment would occur within the project's 10 staging yards. Because the Project would not use public parking spaces, no impacts on existing parking would occur, and parking is not discussed further.

Air Traffic Facilities

The closest public airports include the McClellan-Palomar Airport 1.6 miles away from the staging yards on Eagle Drive in Carlsbad and the Montgomery-Gibbs Executive Airport approximately 2 miles away from the staging yard at an existing SDG&E facility at 5488 Overland Avenue in San Diego. The closest private airport to the Project is at the Marine Corps Air Station (MCAS) Miramar located approximately 2 miles to the north of the staging yard at the existing SDG&E facility at 5488 Overland Avenue in San Diego.

Public Transit and Rail Services

Bus services in the study area are provided by the North County Transit District (NCTD), which operates BREEZE, the main bus system serving north San Diego County including the cities of Escondido and San Marcos. NCTD also operates Sprinter, a light rail line running east-west along the SR 78 corridor that traverses both Escondido and San Marcos. The closest Sprinter stop to the Project is the Nordahl Road Station in Escondido, less than 1 mile from the eastern terminus of Segment 3 (Escondido Substation). In total, three bus routes and one light rail route operate in the study area, as shown in **Table 3.17-3**.

TABLE 3.17-3
TRANSIT LINES WITHIN THE STUDY AREA

Proposed Project Element	Roadway/Route	Transit Line(s)
Segment 1	San Marcos Boulevard	445 (Carlsbad Poinsettia COASTER Connection to Palomar College)
	Rancho Santa Fe Road	304 (Encinitas to San Marcos)
Segment 2	Palomar Airport Road	445 (Carlsbad Poinsettia COASTER Connection to Palomar College)
Segment 3	Citracado Parkway/Auto Park Way	353 (Escondido Transit Center to Nordahl Marketplace)
	Mission Road/SR 78	Sprinter

SOURCE: North County Transit District, 2017

3.17.2 Regulatory Setting

Federal

Federal Aviation Administration

All airports and navigable airspace not administered by the U.S. Department of Defense are under the jurisdiction of the Federal Aviation Administration (FAA). Federal Regulation Title 14 Section 77 establishes the standards and required notification for objects affecting navigable airspace. In general, projects involving features exceeding 200 feet in height above ground level or extending at a ratio greater than 50:1 (horizontal to vertical) from a public or military airport runway less than 3,200 feet long out to a horizontal distance of 20,000 feet are considered potential obstructions, and require notification to the FAA. In addition, the FAA requires a Congested Area Plan for operating a helicopter (with external load) near residential dwellings.

Hazardous Materials Transportation

The U.S. Department of Transportation regulates hazardous materials transportation on all interstate roads. Within California, the state agencies with primary responsibility for enforcing federal and state regulations and for responding to transportation emergencies are the California Highway Patrol (CHP) and Caltrans. Together, federal and state agencies determine driver-training requirements, load labeling procedures, and container specifications. Although, special requirements apply to transporting hazardous materials, requirements for transporting hazardous waste are more stringent, and hazardous waste haulers must be licensed to transport hazardous waste on public roads.

State

Caltrans owns the rights-of-way (ROWs) for State highways, including any on- and off-ramps that provide access to the study area. Any Project-related work within the State ROWs requires a ministerial Encroachment Permit from Caltrans. Caltrans is also the administrating agency for regulations related to traffic safety, including the licensing of drivers, oversized (weight and load)

vehicle limitations, transportation of hazardous and combustible materials, and the safe operation of vehicles.

Any work within the existing Caltrans ROW would have to comply with Caltrans permitting requirements. This includes a traffic control plan that adheres to the standards set forth in the California Manual of Uniform Traffic Control Devices (MUTCD) (Caltrans, 2018). As part of these requirements, there are provisions for coordination with local emergency services, training for flagmen for emergency vehicles traveling through the work zone, temporary lane separators that have sloping sides to facilitate crossover by emergency vehicles, and vehicle storage and staging areas for emergency vehicles. MUTCD requirements also provide for construction work during off-peak hours and flaggers. Since the Project would not require the use of Caltrans ROW for construction or operation/maintenance activities, no Caltrans permitting requirements, including an Encroachment Permit, would be applicable.

For freeways and highways, Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" on State highway facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans. If an existing State highway facility is operating at less than the appropriate target LOS, the existing MOE should be maintained (Caltrans, 2002). Caltrans does not typically apply this guidance to construction trips. On November 9, 2016, Caltrans issued the Local Development Intergovernmental Review Project Interim Guidance Implementing Caltrans Strategic Management Plan 2014-2020 Consistent with Senate Bill (SB) 743 (Interim Guidance). This document provides guidance to Caltrans staff in regard to commenting on local EIRs in a manner consistent with SB 743. Among other things, it suggests that Caltrans should provide recommendations that strive to reduce VMT generation and improve pedestrian, bike, and transit service rather than providing recommendations that primarily accommodate motor vehicle travel. In addition, comments related to the State Highway System should focus on VMT and not vehicle delay or a project's effects on road capacity.

Local

It is noted that while local jurisdictions are preempted from regulating the Project, the plans, policies, and regulations described below are used in the impact analysis to determine whether any actual adverse environmental impact could occur as a result of a conflict with these plans, policies, and regulations.

San Diego Association of Governments

San Diego Association of Governments (SANDAG) serves as the regional planning agency for all of San Diego County. SANDAG is responsible for planning and allocating local, State, and federal funds for the region's transportation network. State law and the California Transportation Commission require SANDAG to adopt a 20-year regional transportation plan every four years, which considers improvements to freeways, State highways, transit, and regional bicycle and pedestrian routes. SANDAG prepares and administers a number of key plans that relate to regional transportation infrastructure and planning, such as the Regional Transportation Plan (RTP). These plans are generally utilized to identify and address current and projected future transportation

planning and congestion management through traffic monitoring, traffic mitigation, transportation system planning, specific transportation project identification and funding, and transportation system management. The RTP addresses large-scale transportation planning and projects and does not generally address small-scale construction project planning.

State Proposition 111, passed by voters in 1990, established a requirement that urbanized areas prepare and regularly update a Congestion Management Program (CMP). Although SANDAG provided regular updates for the state CMP from 1991 through 2008, in 2009 the San Diego region elected to opt out of (be exempt from) the state CMP as allowed by Proposition 111, while continuing to comply with applicable federal congestion management requirements through incorporation of a congestion management process in its RTP (SANDAG, 2015).

County of San Diego

The County of San Diego prepares and administers two key plans that relate to the local transportation infrastructure and planning of unincorporated areas of San Diego County where the Project is proposed: the General Plan (2011a) and the Bicycle Master Plan (2008). Specifically, the County's General Plan Mobility Element discusses the transportation network, policies, goals, maintenance, and management for a balanced, multi-modal transportation system. Specific goals and policies within the County's Mobility Element include:

> **Policy M-2.1:** Requires development projects to provide associated road improvements necessary to achieve a level of service of "D" or higher on all Mobility Element roads except for those where a failing level of service has been accepted by the County pursuant to the criteria specifically identified.
>
> **Policy M-3.1:** Requires development to dedicate right-of-way for public roads and other transportation routes. It requires the provision of sufficient right-of-way width to adequately accommodate all users, including transit riders, pedestrians, bicyclists, and equestrians.
>
> **Policy M-3.2:** Requires development to contribute its fair share toward financing transportation facilities, including mitigating the associated direct and cumulative traffic impacts caused by their project on both the local and regional road networks.

The County of San Diego does not apply these policies to temporary construction traffic (County of San Diego, 2011b).

City of Carlsbad

The City of Carlsbad prepares and administers three key plans that relate to local transportation infrastructure and planning with specific plans and policies detailing bicycle and pedestrian transportation: the General Plan (2015), the Bikeway Master Plan (2007), and the Pedestrian Master Plan (2008). The City's General Plan Mobility Element discusses specific transportation policies to improve vehicle travel and increase bicycle and public transportation use as well as overall transportation connectivity. Specific policies include:

> **Policy 3-P.4:** Maintain an LOS of "D" or higher for all modes of transportations.
>
> **Policy 3-P.32:** Requires developers to improve pedestrian and bicycle connectivity.

The Bikeway and Pedestrian master plans expand further on the goals and policies regarding bicycle and pedestrian transportation discussed in the City's Mobility Element. The Bikeway Master Plan provides an analysis of the existing system and provides recommendations for an efficient, safe, and convenient bicycle network. The Pedestrian Master Plan provides a framework for expanding and enhancing the pedestrian network for greater connectivity throughout the City. The Plan contains recommendations for future networks and future programs to enhance the pedestrian experience.

The City of Carlsbad does not apply these policies to temporary construction traffic (City of Carlsbad, 2017).

City of Escondido

The City of Escondido prepares and administers two key plans that relate to local transportation infrastructure and planning: the General Plan (2012a) and the Bicycle Facilities Master Plan (2012b). These plans are generally used to identify and address current and projected future transportation planning and congestion management through traffic monitoring, transportation system planning, and transportation system management. The Mobility and Infrastructure Element of the Escondido General Plan discusses further transportation policies, including:

Bicycle Network Policy 4.2: Maintain an acceptable LOS detailed in the Master Bicycle Plan, Transit System Policy.

Transit System Policy 5.1: Collaborate with the NCTD to facilitate effective, convenient, and efficient transit modes to meet the needs of residents and visitors including seniors, disabled persons, and transit-dependent persons.

Transit System Policy 5.2: Work alongside the NCTD to increase the use of transit by maintaining services within the city that are timely and cost effective, locating routes and access points effectively, and developing short and long term service plans.

Transit System Policy 5.8: Require that new developments incorporate transit-supporting facilities into the project design, where appropriate.

Street Network Policy 7.3: Maintain an LOS of "C" or higher throughout the city except for the urban core. Establish LOS "D" as the threshold for determining significant impacts and appropriate mitigation.

Street Network Policy 7.7: Require development projects to analyze local traffic impacts and construct and implement the improvements required for that development.

Street Network Policy 7.8: Require new development projects to analyze traffic impacts on the regional transportation system, and pay a fair-share contribution to regional transportation improvements.

The Bicycle Plan is a more comprehensive plan discussing in further detail topics addressed in the Mobility and Infrastructure Element. The Plan serves as an implementation tool for the General Plan. The applicable goals include:

Goal 1: Expand and enhance Escondido's bikeway network and eliminate barriers to bicycling.

Goal 2: Plan for the needs of bicyclists.

The City of Escondido does not apply these policies to temporary construction traffic (City of Escondido, 2017).

City of San Marcos

The City of San Marcos prepares and administers two key plans that relate to local transportation infrastructure and planning: the General Plan (2012) and the Bicycle and Pedestrian Master Plan (2015). Policies specific to transportation are found in the General Plan Mobility Element, including:

> **Policy M-1.3:** Requires new development to create a Transportation Demand Management program to minimize generated trips for construction projects.
>
> **Policy M-1.4:** Maintain an LOS of "D" or higher for vehicle and bicycle transportation and an LOS of "C" or higher for pedestrians.

The Bicycle and Pedestrian Master Plan is a more comprehensive plan that discusses in further detail topics addressed in the Mobility Element. The Plan identifies existing and proposed bikeway facilities in San Marcos and provides goals for the City for future development of bikeways and pathways. These goals include developing the bicycle system to be more destination-oriented, and locally and regionally connected.

The City of San Marcos does not require detailed LOS analysis for temporary construction traffic (City of San Marcos, 2017).

City of Vista

The Circulation Element of the Vista General Plan 2030 (City of Vista, 2012) provides a guide for the planning of the future circulation network, and provides goals and policies for the development of the circulation system to best achieve the City's vision for the planning period. The Circulation Element includes the following relevant policies:

> **CE Policy 1.10:** Require necessary conditions of approval on development projects to achieve LOS standards prescribed in this element. Develop a checklist for development and redevelopment projects to ensure the inclusion of infrastructure that provides safe travel for all users and enhances project outcomes and community impact.
>
> **CE Policy 1.11:** Require all new development projects to participate in the City's transportation fee programs. These fee programs will be designed to ensure that all development projects fund their fair share of the necessary long-term transportation improvements identified in this Element.
>
> **CE Policy 1.12:** Require all new development projects to either fund or install their fair share of all required feasible transportation improvements necessary to achieve a multi-modal LOS identified in this Element as mitigation for the direct impacts on the circulation network from the proposed project.
>
> **CE Policy 6.2:** Require proposed development to provide bike facilities within the right-of-way for Class II bikeways in the project vicinity on all arterial roadways where deemed appropriate. Where Class II bikeways are not feasible, require Class III bike routes to be provided as a temporary measure.

CE Policy 6.3: Require proposed developments, where feasible to dedicate easements for Class I bikeways or hiking trails in the project vicinity where deemed appropriate.

CE Policy 6.4: Require proposed developments to install sidewalks and wheelchair ramps that comply with Americans with Disabilities Act (ADA) standards adjacent to all roadways within each development.

The City of Vista does not apply these policies to temporary construction traffic (City of Vista, 2018).

Public Utility Standards

The California Joint Utility Traffic Control Manual (California Joint Utility Traffic Control Committee, 2010) provides standards and principles to consider when constructing in a road. The document states it is the responsibility of the contractor performing work on or adjacent to a road to implement traffic control devices and procedures to ensure the safe passage of motorists, bicyclists, and pedestrians. This manual does not establish a legal standard; rather, it provides information and guidance.

3.17.3 Applicant Proposed Measures

The following transportation-specific applicant-proposed measures (APMs) would be implemented for the Project.

APM TRA-1: If construction requires lane closures, traffic delays, or other encroachment of construction activities within public travelways, the Applicant will adhere to local traffic control regulations and establish a traffic control plan as needed to comply with local ordinances. Traffic control plans will describe signage, flaggers, or other controls to be used to regulate traffic where necessary and to maintain a safe transportation corridor during construction.

APM TRA-2: The Applicant will coordinate with local emergency response agencies during construction within existing public roadways to allow safe passage and access by emergency vehicles and equipment.

3.17.4 Environmental Impacts

Discussion

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit: *LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.*

Project construction would result in minor temporary increases in average daily traffic (ADT) along road segments where construction personnel, equipment, and other construction-related trips would access work areas and staging yards. Due to the nature of transmission and power line construction, multiple work areas would be active simultaneously, so construction traffic would

be spread out among existing roadways and SDG&E access roads within the study area. Traffic-generating construction activities would consist of the daily arrival and departure of workers to each work site, and trucks hauling equipment and materials to the work sites. The roadways that would be potentially affected by construction-related traffic are listed in Table 3.17-1.

To evaluate the potential worst case scenarios, potential effects on roadway LOS were analyzed assuming that all Project-related trips could occur on a single roadway where that roadway could represent a common travel route for multiple project elements (such as SR 78 and I-15). This analysis is considered to be conservative as, in reality, construction trips would be dispersed along roadways adjacent to the 12-mile-long alignment. The peak number of construction-related vehicle trips would occur in June 2020 while the following phases would overlap:

- Segment 2 Foundation Construction (Pier)
- Segment 3 Auger Holes, Direct Bury Poles
- Segment 2 Structure Installation and Assembly
- Segment 1 Stringing Activities/Transfer Conductor/Sagging Activities
- Segment 3 Foundation Construction (Pier)
- Segment 3 Structure Installation and Assembly
- Escondido Substation Work (below grade)
- Escondido Substation Work (above grade)
- Segment 2 Stringing Activities/Transfer Conductor/Sagging Activities
- Segment 1 Demobilization/ROW Restoration and Cleanup/Road Refreshing

Further detail on the construction phasing is provided in Section 2.5.1 of the *Project Description*. During this peak construction period in which several phases could be underway concurrently, it is estimated that a maximum of 268 one-way daily would occur[1] (SDG&E, 2018). This would include 160 one-way worker trips to various staging yards and work sites and 108 passenger car equivalent one-way truck trips for hauling materials.

As shown in Table 3.17-1, I-15 and SR 78 currently experience LOS D and LOS E conditions, respectively, in the study area. The additional traffic resulting from Project construction would not represent a significant increase in the total ADT or v/c ratio and, consequently, would not create a significant impact on level of service. For example, existing ADT on I-15 in the study area is approximately 243,000, to which Project-related construction traffic would add no more than 268 daily trips. Existing ADT on SR 78 in the study area is approximately 168,000, to which construction would also add no more than 268 daily trips. On Auto Park Way in Escondido, which currently operates at LOS E, construction would add no more than 268 daily trips. Based on professional judgement, the magnitude of these increases is within the range of typical daily variation in traffic levels (usually on the order of ± 5 percent) that might be expected on the major roadways serving the Project, and roadway operating conditions on these roadways would remain

[1] Due to the size and greater effect on traffic that larger vehicles (such as hauling and cement trucks) have, a passenger car equivalent of 3.0 was applied to such trips for the purpose of the analysis (e.g., 18 one-way tuck trips were evaluated as 90 one-way car trips).

substantially similar to current conditions. On the study area local roadways that currently operate at LOS A, B, or C, the addition of construction-related trips would not result in any degrading of LOS to an unacceptable level. As noted previously, this analysis conservatively assumes that *all* construction traffic would travel on these facilities, which is highly unlikely on local roadways considering that construction traffic would be dispersed across the 12-mile-long Project alignment. Therefore, the addition of construction-related trips would result in a less-than-significant impact on the performance of study roadway segments.

Construction activities would include installation of guard structures for overhead conductor crossings of nine roadways along Segment 1, nine roadways along Segment 2, and eight roadways along Segment 3.[2] Construction of the guard structures would affect traffic by temporarily reducing the capacity of a given roadway by using flaggers to temporarily hold traffic for brief periods of time while the overhead line is installed at road crossings. The applicant has identified which of these crossings would require a guard pole or boom truck and which would have a specific traffic plan for either guard poles or boom trucks at each specific pole or stringing site. In addition, pole installation along the south side of West San Marcos Boulevard could require the temporary closure of up to two traffic lanes at each pole site. To address these temporary disruptions to traffic, the applicant would implement APM TRA-1, which would establish traffic control plans to address circulation of motor vehicles, bicycles, and pedestrians, and would maintain the flow of traffic around the construction area. Furthermore, encroachment permits required for any work conducted in city or county roadway ROW would include provisions for proper signage, safety cones, flaggers, and other traffic control measures as necessary. Therefore, the impact of temporary delays to vehicular traffic due to construction activities would be less than significant.

Construction activities could temporarily close Class II and III bike lanes in roadways adjacent to the Project, or where the power line crosses roads where bicycle facilities are present. This could temporarily affect access to the bicycle facilities on Discovery Street, San Marcos Boulevard/ Palomar Airport Road, Rancho Santa Fe Road, San Elijo Road, Morgan Trails, Elfin Forest Road, Citracado Parkway, and Auto Park Way. Detours would be implemented per the Traffic Control Plan where appropriate, consistent with APM TRA-1. Similarly, sidewalks may be temporarily closed near construction activities to protect public safety. Alternative pedestrian routes would be implemented where appropriate, consistent with APM TRA-1. Project construction would be located primarily within the existing and proposed SDG&E ROW in Segment 1, and would not conflict with future plans for bikeway connectivity either locally or regionally. Therefore, Project construction would result in a less-than-significant impact on bicycle and pedestrian facilities.

However, APM TRA-1 does not fully address the potential impact of Project construction on public transit. As noted above, pole installation along the south side of West San Marcos Boulevard could require the temporary closure of up to two traffic lanes at each pole site. Installation of AC interference mitigation system deep wells also could result in lane closures on West San Marcos Boulevard. Drilling for the AC mitigation deep wells is estimated to take two to three days, and an additional two to three days is anticipated for the structure connection and

[2] Two driveways along Segment 1 and one trail along Segment 3 would also require guard structures.

solid state decoupler installation after the deep well is completed. BREEZE Line 445 (Carlsbad Poinsettia COASTER Connection to Palomar College) operates along this affected segment of West San Marcos Boulevard, which includes up to 11 curbside bus stops. In order to minimize disruptions to BREEZE Line 445 operations along West San Marcos Boulevard, **Mitigation Measure TRA-1** is proposed to address impacts on public transit operations during Project construction.

> **Mitigation Measure TRA-1: Coordination with North County Transit District (NCTD):** SDG&E and its contractor shall:
>
> - Minimize interruptions to transit services and facilities. In the event that a temporary removal or relocation of a bus stop is necessary, coordinate with NCTD to ensure that any such action is consistent with the transit operator's needs.
> - The applicant shall coordinate with NCTD at least 30 days in advance of right-of-way construction work to ensure that any such construction activities are consistent with maintaining the transit services' operations.
>
> **Significance after Mitigation:** Mitigation Measure TRA-1 would ensure that potential disruptions to BREEZE Line 445 resulting from pole installation along the south side of West San Marcos Boulevard would be minimized. With the implementation of this mitigation measure, this impact would be reduced to a less-than-significant level.

Project operation and maintenance would be similar to the operation and maintenance of existing facilities. As stated in Section 2.6.1, *General Project Operation and Maintenance Activities and Practice*, it is anticipated that the overall miles required for maintenance would slightly increase from 247 miles per month to 252 miles per month due to the installation of new structures on Segment 2. However, the Project's slight increase in maintenance activities and related miles traveled would be offset by the decrease in maintenance activities resulting from the proposed pole replacement and reconductoring/re-energizing of the existing de-energized line, which would decrease heavy truck use and mileage, from 91 down to 84 miles per month. Since operation and maintenance activities would result in, on balance, the same amount of truck traffic and vehicle miles traveled as the existing system, the operational impacts on all study area roadway segment users (i.e., vehicles, buses, and pedestrians) would be less than significant.

See additional discussion under Question f with regard to impacts on public transit riders and operators, pedestrians, and bicyclists.

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways: *NO IMPACT.*

For the reasons described in Section 3.17.2, the state CMP requirements are no longer applicable to the San Diego Region; therefore, no impact would occur with respect to conflicting with a state CMP. SANDAG's congestion management process, which is intended to meet federal congestion management requirements and incorporated into its RTP, monitors and addresses long-term traffic impacts due to future development that do not apply to temporary construction-related

impacts such as those that would result from Project construction. The Project's changes to existing operation and maintenance activities would be negligible. Therefore, the Project would not generate new long-term traffic, and consideration of traffic impacts on covered roadways is not relevant; no impact would occur.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks: *LESS THAN SIGNIFICANT IMPACT.*

None of the permanent structures or the equipment used to construct the Project would be taller than 200 feet; therefore, none would result in any hazards to air navigation. As noted in Section 2.5.7, *Helicopter Use during Construction*, helicopters may be used for specific Project construction activities, including – but not limited to – stringing of overhead conductor (Segment 2), installation or removal of structures, and transportation of equipment. Helicopter flight paths would be limited to the existing SDG&E ROW, except for ingress and egress from the helicopter landing staging area at McClellan-Palomar Airport. No incidental landing areas are proposed. Helicopter activities would require up to 8 hours of total operation throughout Project construction. Based on the limited duration and flight path controls described above, Project construction would have a less-than-significant impact on air traffic.

Project operation and maintenance would occur in the same, or essentially the same, locations as operation and maintenance of the existing lines occur today. Helicopter use beyond that currently required for existing facilities would not be necessary to operate or maintain the Project (see Section 2.6.6, *Use of Helicopters* for more detail). As a result, there would be no impact on air traffic due to Project operation and maintenance.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment): *LESS THAN SIGNIFICANT IMPACT.*

Construction would not require any permanent modifications to existing public roadways or other transportation infrastructure. As a standard practice, SDG&E utilizes guard structures for conductor stringing over roadways. Furthermore, SDG&E would be required to obtain encroachment permits in order to complete work within or over roadways would implement. In accordance with APM TRA-1 and City and County requirements, the encroachment permits would include traffic control plans that would ensure work is completed in a safe manner, in accordance with applicable local regulations, including proper signage, safety cones, flaggers, and other traffic control measures as necessary. Therefore, construction of the Project would result in a less-than-significant impact with respect to increased hazards and incompatible uses.

Operation and maintenance activities for the Project would be similar to the operation and maintenance of existing facilities. As indicated above in the impact discussion for Question a, operation and maintenance activities would result in, on balance, the same amount of truck and vehicle traffic as the existing system. Furthermore, while routine maintenance activities, which occur under existing conditions, may cause temporary road closures, these road and lane closures would be minimal, as few areas of the Project would be located along public ROWs. APM TRA-1

would be implemented when necessary, and would include measures such as the use of guard structures, proper signage, safety cones, flaggers, and other traffic control measures. The Project would be within existing SDG&E ROW and operations would not conflict with transportation routes.

Therefore, the Project's operation and maintenance would have a less-than-significant impact on hazards due to design features or incompatible uses.

e) Result in inadequate emergency access: *LESS THAN SIGNIFICANT IMPACT.*

As noted previously, construction of the Project would potentially increase vehicle traffic temporarily and would potentially result in temporary lane closures during construction activities. Construction within public roadways would be conducted pursuant to Caltrans' MUTCD requirements, including approved traffic control plans (APM TRA-1) and would be coordinated with emergency response agencies (APM TRA-2) to ensure that emergency vehicle access is preserved during construction activities. Therefore, construction of the Project would result in a less-than-significant impact on emergency access.

Operation and maintenance activities for the Project would be similar to the operation and maintenance of existing facilities. As indicated above in the impact discussion for Question a, operation and maintenance activities would result in, on balance, the same amount of truck traffic and VMT as the existing system. Maintenance visits to facilities along Segments 1, 2, and 3 would be conducted pursuant to jurisdictional encroachment permit requirements, including traffic control measures. Emergency access would be preserved. Therefore, operation and maintenance of the Project would result in a less-than-significant impact on emergency access.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities: *LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.*

The Project would not result in any long-term impact on demand for alternative transportation or on alternative transportation facilities (i.e., for public transit, pedestrians, and bicyclists). Operation and maintenance of the Project would not eliminate alternative transportation corridors or facilities pertaining to bicycle lanes or public transit, nor would it include changes in policies or programs that support modes of alternative transportation. However, as indicated above in the impact discussion for Question a, construction along study area roadways could disrupt bicycle facilities on Discovery Street, San Marcos Boulevard/Palomar Airport Road, Rancho Santa Fe Road, San Elijo Road, Morgan Trails, Elfin Forest Road, Citracado Parkway, and Auto Park Way; and access to bus stops for bus routes provided by the NCTD (BREEZE Line 445 - Carlsbad Poinsettia COASTER Connection to Palomar College).

As described above in the impact discussion for Question a, implementation of **Mitigation Measure TRA-1** (Coordination with North County Transit District [NCTD]) Construction Traffic Control/Traffic Management Plan) would require the construction contractor to establish methods for minimizing construction effects on transit service. The specific requirements of NCTD coordination are identified under Mitigation Measure TRA-1.

Mitigation Measure TRA-1: Coordination with North County Transit District (NCTD). See full text of this Mitigation Measure under Question a, above.

Significance after Mitigation: With implementation of Mitigation Measure TRA-1, impacts related to effects on alternative transportation or alternative transportation facilities would be mitigated to a less-than-significant level.

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3.18 Tribal Cultural Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
18. Tribal Cultural Resources —				
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☐	☒
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

This section provides an assessment and identification of tribal cultural resources pursuant to Assembly Bill (AB) 52. During the AB 52 process, the CPUC conducted a formal outreach process (discussed in more detail below), and reviewed all relevant materials consisting of tribal maps, tribal consultation meetings, and California Register Historical Resources (CRHR) eligible archaeological site assessments.

For the purposes of this analysis, the resource-specific study area includes a 150-foot buffer on either side of the center line of the entire Project alignment, including all Project components, access roads, staging yards, substation locations, pole replacement sites, and all areas of temporary and/or permanent ground disturbance.

3.18.1 Environmental Setting

As noted in Section 3.5, *Cultural Resources*, the Project alignment encompasses the ethnographic territories of the Luiseño and Kumeyaay peoples. Detailed descriptions for these two ethnographic groups can be found in Section 3.5.1.

Identification of Tribal Cultural Resources

Pursuant to AB 52 (discussed below in Section 3.18.2, *Regulatory Settings*), which requires government-to-government consultation within the CEQA process, CPUC as the CEQA Lead Agency sent AB 52 consultation notification letters via certified mail on March 27, 2018 to 21 Native American groups affiliated with the general study area (**Table 3.18-1**). The letters included a description of the Project and provided a map figure depicting the Project alignment.

TABLE 3.18-1
SUMMARY OF AB 52 CONSULTATION

Contact	Tribe/Organization	Date Notification Sent	Response Received	CPUC Response	Meetings
Bo Mazzetti, Chairperson	Rincon Band of Luiseño Indians	3/27/2018	4/30/2018 - Email requesting AB 52 consultation	4/30/2018 - email initiating AB 52 consultation	6/12/2018
Cami Mojado, Cultural Resources Manager	San Luis Rey Band of Mission Indians	3/27/2018	4/17/2018 - Letter requesting AB 52 consultation	4/19/2018 - email initiating AB 52 consultation	4/27/2018, 7/9/2018
Cody J. Martinez, Chairperson	Sycuan Band of Kumeyaay Nation	3/27/2018	-	-	-
Gwendolyn Parada, Chairperson	La Posta Band of Diegueno Mission Indians	3/27/2018	-	-	-
Joyce Perry, Tribal Manager	Juaneño Band of Mission Indians Acjachemen Nation	3/27/2018	-	-	-
Robert J. Welch, Chairperson	Viejas Band of Mission Indians	3/27/2018	4/9/2018 - Letter recommending San Pasqual be contacted	4/30/2018 - Letter thanking Viejas for recommendation	-
Shasta Guaghen, Tribal Historic Preservation Officer	Pala Band of Mission Indians	3/27/2018	10/12/2018 – Letter declining AB 52 consultation	10/17/2018 -- Letter thanking Pala for response	-
Temet Aguilar, Chairperson	Pauma Band of Luiseno Indians	3/27/2018	-	-	-
Tribal Council	San Luis Rey Band of Mission Indians	3/27/2018	-	-	-
Erica Pinto, Chairperson	Jamul Indian Village of California	3/27/2018	-	-	-
Joseph Ontiveros, Cultural Resources Department	Soboba Band of Luiseno Indians	3/27/2018	-	-	-
Ralph Goff, Chairman	Campo Band of Mission Indians	3/27/2018	-	-	-
Thomas Rodriguez, Chairperson	La Jolla Band of Luiseno Indians	3/27/2018	-	-	-
Michael Garcia, Chairperson	Ewiiaapaayp Band of Kumeyaay Indians	3/27/2018	-	-	-
Leroy J. Elliott, Chairperson	Manzanita Band of Kumeyaay Nation	3/27/2018	-	-	-
Robert Pinto, Chairperson	Ewiiaapaayp Band of Kumeyaay Indians	3/27/2018	-	-	-
Anna Hoover, Cultural Analyst	Pechanga Cultural Resources Dept.	3/27/2018	-	-	-
Clinton Linton, Director Cultural Resources	Santa Ysabel Band of the Iipay Nation	3/27/2018	7/24/2018 - Email recommending Kumeyaay monitors	7/24/2018 – Email stating Santa Ysabel's recommendations to be included in admin record	-
Matias Belardes, Chairperson	Juaneño Band of Mission Indians Acjachemen Nation	3/27/2018	-	-	-
Sonia Johnson, Chairperson	Juaneño Band of Mission Indians	3/27/2018	-	-	-
Teresa Romero, Chairperson	Juaneño Band of Mission Indians Acjachemen Nation	3/27/2018	-	-	-

In addition to the AB 52 notification letters, courtesy CEQA notification letters were sent to nine Native American groups included on a list of tribal contacts provided to CPUC by the California Native American Heritage Commission (NAHC) on February 28, 2018 (**Table 3.18-2**). The letters included a project description, a map figure depicting the Project alignment, and a statement indicating that the notification is a courtesy outreach separate from the CPUC's formal AB 52 obligations.

TABLE 3.18-2
SUMMARY CEQA COURTESY OUTREACH

Contact	Tribe/Organization	Date Notification Sent	Response Received	CPUC Response	Meetings
Allen E. Lawson, Chairperson	San Pasqual Band of Mission Indians	3/27/2018	-	-	-
Edwin Romero, Chairperson	Barona Group of the Capitan Grande	3/27/2018	-	-	-
Jeff Grubbe, Chairperson	Agua Caliente Band of Cahuilla Indians	3/27/2018	-	-	-
Jim McPherson, Tribal Historic Preservation Officer	Rincon Band of Mission Indians	3/27/2018	-	-	-
Mario Morales, Cultural Resources Representative	Mesa Grande Band of Mission Indians	3/27/2018	-	-	-
Javaughn Miller, Tribal Administrator	La Posta Band of Mission Indians	3/27/2018	-	-	-
Carmen Lucas	Kwaaymii Laguna Band of Mission Indians	3/27/2018	-	-	-
Rebecca Osuna, Chairperson	Inaja Band of Mission Indians	3/27/2018	-	-	-
Virgil Oyos, Chairperson	Mesa Grande Band of Mission Indians	3/27/2018	-	-	-

To date, CPUC has received responses to the AB 52 notification letters from five groups including the San Luis Rey Band of Mission Indians, Rincon Band of Luiseño Indians, Santa Ysabel Band of the Iipay Nation, Viejas Band of Mission Indians, and Pala Band of Mission Indians.

San Luis Rey Band of Mission Indians

In a letter dated April 17, 2018, the Legal Counsel for the San Luis Rey Band of Mission Indians, requested formal consultation pursuant to AB 52 and asked that the tribe's Tribal Cultural Resources Manager, be contacted to coordinate the consultation. CPUC's Tribal Liaison, responded initiating formal consultation. Two AB 52 consultation meetings between CPUC and the San Luis Rey Band of Mission Indians were held on April 27, 2018 and July 9, 2018. As part of the April 27 meeting, San Luis Rey stated that previously recorded archaeological resource P-37-032160, a CRHR-eligible prehistoric archaeological site containing intact subsurface deposits as described in Section 3.5.1, was capped with sterile soil and an open-space easement was established in the central portion of the site to ensure that it is afforded protection from future ground disturbing activities. Portions of this resource overlap the Project alignment. Resource P-37-032160 has been previously evaluated for listing in the CRHR under Criterion 4 (data potential) and therefore qualifies as a historical resource under CEQA. However, this resource

has not been evaluated for its eligibility for listing in the CRHR as a tribal cultural resource. Pursuant to California Public Resources Code (PRC) Section 21074(a)(2), resource P-37-032160 will, however be treated as a tribal cultural resource in the discretion of the Lead Agency based on substantial evidence put forth by the San Luis Rey during consultation. The San Luis Rey also indicated the potential for the presence of subsurface archaeological deposits within the Project alignment, particularly the entirety of Segment 3 (in the area along Citracado Parkway), and the easternmost 500 feet of Segment 2.

During the July 9 meeting, map figures were reviewed depicting the locations of known prehistoric archaeological resources on, adjacent to, or within 150 feet of the Project alignment relative to the Project footprint for permanent and temporary impacts. Each resource within and adjacent to the Project alignment was discussed, as were potential mitigation measures that would reduce Project impacts to the resources. For many of the known resources, the San Luis Rey indicated that construction monitoring and the establishment of exclusionary fencing was appropriate. For resource P-37-032160, the San Luis Rey indicated that construction monitoring and the preparation and implementation of a data recovery plan would constitute appropriate mitigation for impacts that could result from Project-related ground disturbing activities. San Luis Rey also requested review of the research design to be included in the data recovery plan. The San Luis Rey also reiterated that the portion of the Project alignment, particularly the entirety of Segment 3 (in the area along Citracado Parkway), and the easternmost 500 feet of Segment 2, is sensitive for the presence of subsurface archaeological deposits.

Rincon Band of Luiseño Indians

In an email dated April 30, 2018, the Cultural Resources Director for the Rincon Band of Luiseno Indians, requested formal AB 52 consultation between CPUC and Rincon. In an email dated April 30, 2018, CPUC responded initiating AB 52 consultation. On June 12, 2018, an AB 52 consultation meeting was held between CPUC and the Rincon Band of Luiseño Indians. Rincon indicated that monitoring would be warranted for Project-related ground disturbing activities in the vicinity of archaeological sites P-37-032160 and -012209 (see site descriptions in Section 3.5). Rincon also indicated a number of Luiseño resource and placenames are present in the vicinity of the Project alignment, and offered to share that information. Following the meeting, GIS data for the Project alignment were emailed to Rincon on June 12, 2018, and, on June 14, 2018, Rincon provided a map figure depicting the Luiseño placenames relative to the Project alignment.

Santa Ysabel Band of Iipay Nation

In an email dated July 24, 2018, the Director of Cultural Resources for the Santa Ysabel Band of Iipay Nation, recommended that Kumeyaay Native American monitors be retained to monitor Project construction, and that avoidance be the primary means of mitigating impacts for prehistoric archaeological resources inadvertently discovered during Project construction. In an email dated July 24, 2018, CPUC responded Santa Ysabel's recommendation would be included in the Project's administrative record.

Viejas Band of Mission Indians

In a letter dated April 9, 2018, the Cultural Resources Manager for the Viejas Band of Mission Indians stated the Project alignment is located in an area of cultural significance to the Kumeyaay

and recommended that the San Pasqual Band of Mission Indians be contacted. Viejas also recommended that all relevant environmental laws be followed. In a letter dated April 30, 2018 CPUC responded to the Cultural Resources Manager's letter thanking him for the recommendations and informing him that the San Pasqual Band of Mission Indians were contacted via letter as part of the notification process.

Pala Band of Mission Indians

In a letter dated October 12, 2018, the Tribal Historic Preservation Officer for the Pala Band of Mission Indians stated the Project alignment is located outside the tribe's traditional use area and defers to tribal groups located in closer proximity to the Project alignment. Pala declined AB 52 consultation at this time, but does not waive the right to request consultation under other applicable laws in the future.

3.18.2 Regulatory Setting

State

Assembly Bill 52 and Related Public Resources Code Sections

The passage of AB 52 in 2014 amended California PRC Section 5097.94, and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. The primary intent of AB 52 was to include California Native American Tribes early in the environmental review process and to establish a new category of resources related to Native Americans that require consideration under CEQA, known as tribal cultural resources. PRC Sections 21074(a)(1) and (2) define tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe" that are either included or determined to be eligible for inclusion in the CRHR or included in a local register of historical resources, or a resource that is determined to be a tribal cultural resource by a lead agency, in its discretion and supported by substantial evidence. The final text for the tribal cultural resources update to CEQA Guidelines Appendix G was approved in 2016.

PRC Section 21080.3.1 requires that within 14 days of a lead agency determining that an application for a project is complete, or a decision by a public agency to undertake a project, the lead agency provide formal notification to the designated contact, or a tribal representative, of California Native American Tribes that are traditionally and culturally affiliated with the geographic area of the project (as defined in PRC §21073) and who have requested in writing to be informed by the lead agency (PRC §21080.3.1(b)). Tribes interested in consultation must respond in writing within 30 days from receipt of the lead agency's formal notification and the lead agency must begin consultation within 30 days of receiving the tribe's request for consultation (PRC §§21080.3.1(d) and 21080.3.1(e)).

PRC Section 21080.3.2(a) identifies the following as potential consultation discussion topics: the type of environmental review necessary; the significance of tribal cultural resources; the significance of the project's impacts on the tribal cultural resources; project alternatives or appropriate measures for preservation; and mitigation measures. Consultation is considered

concluded when either: (1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or (2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached (PRC §21080.3.2(b)).

If a California Native American tribe has requested consultation pursuant to Section 21080.3.1 and has failed to provide comments to the lead agency, or otherwise failed to engage in the consultation process, or if the lead agency has complied with Section 21080.3.1(d) and the California Native American tribe has failed to request consultation within 30 days, the lead agency may certify an EIR or adopt an MND (PRC §§21082.3(d)(2) and (3)).

PRC Section 21082.3(c)(1) states that any information, including, but not limited to, the location, description, and use of the tribal cultural resources, that is submitted by a California Native American Tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public without the prior consent of the tribe that provided the information. If the lead agency publishes any information submitted by a California Native American Tribe during the consultation or environmental review process, that information shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public.

3.18.3 Applicant Proposed Measures

The following measure pertaining to tribal cultural resources has been proposed by SDG&E and would be implemented for the Project.

> **APM CUL-4:** Native American monitoring may be implemented for portions of the Project that have the potential to affect unidentified TCRs. The role of the Native American monitor will be to observe Project construction in mapped sensitive areas and facilitate communication of tribal concerns to the qualified archaeologist, the SDG&E Cultural Resources Specialist, and/or construction personnel and tribal council.

3.18.4 Environmental Impacts

Discussion

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a.i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k): *NO IMPACT.*

Construction

One resource (P-37-032160) potentially eligible for listing in the CRHR as a tribal cultural resource has been identified as a result of AB 52 consultation. Because of its tribal values, this

resource has been capped with sterile sediments and protected by an easement agreement. Although P-37-032160 has been previously recommended eligible for listing in the CRHR for its archaeological data potential, it has not been formally evaluated for its eligibility for listing in the CRHR or local register for its significance and cultural value to a California Native American Tribe as a tribal cultural resource pursuant to PRC Section 21074(a)(1). Rather, pursuant to PRC Section 21074(a)(2), resource P-37-032160 is being treated as a tribal cultural resource at the discretion of the lead agency based on substantial evidence put forth by the San Luis Rey during consultation (see Question b, below). Therefore, no tribal cultural resources listed or eligible for listing in the CRHR or for local register listing as defined in PRC Section 21074(a)(1) would be impacted by construction of the Project; therefore, no mitigation is required.

Operations and Maintenance

As previously described, resource P-37-032160 has not been formally evaluated for its eligibility for listing in the CRHR or local register for its significance and cultural value to a California Native American Tribe as a tribal cultural resource pursuant to PRC Section 21074(a)(1), but rather is being treated as a tribal cultural resource at the discretion of the lead agency based on substantial evidence put forth by the San Luis Rey during consultation pursuant PRC Section 21074(a)(2) (see Question b, below). Therefore, no tribal cultural resources listed or eligible for listing in the CRHR or for local register listing as defined in PRC Section 21074(a)(1) would be impacted by the operations and maintenance of the Project; therefore, no mitigation is required.

a.ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe: *LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.*

Construction

Pursuant to PRC Section 21074(a)(2), resource P-37-032160 is being treated as a tribal cultural resource at the discretion of the lead agency based on substantial evidence put forth by the San Luis Rey during consultation. Ground disturbing activities associated with Project construction have the potential to physically impact this resource and, as a result, could cause a substantial adverse change in the significance of a tribal cultural resource. As indicated by the San Luis Rey Band of Mission Indians during the AB 52 consultation meetings, data recovery and construction monitoring would be considered effective measures for reducing Project impacts to P-37-032160.

To address impacts on tribal cultural resources, SDG&E proposed APM CUL-4 requiring a Native American monitor to be present in areas of potential sensitivity. The CPUC has determined that this APMs would not reduce or avoid substantial adverse changes in the significance of resource P-37-032160 to below the level of significance. Therefore, APM CUL-4 is superseded by **Mitigation Measures CUL-1** through **CUL-4**, which identify specific measures and standards that would reduce potential impacts to less than significant.

> **Implement Mitigation Measure CUL-1 through CUL-4.** See full text for these Mitigation Measures in Section 3.5, *Cultural Resources,* under Question a.

Significance after Mitigation: PRC Section 21082.3 requires any mitigation measures agreed upon in the consultation conducted pursuant to Section 21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to paragraph (2) of subdivision (b), and shall be fully enforceable. The measures should be feasible to avoid or substantially lessen the impact on the identified tribal cultural resource. Mitigation Measures CUL-1 through CUL-4 provide are feasible measure that will substantially lessen the impact on the identified tribal cultural resource.

Operations and Maintenance

Resource P-37-032160 is located within a developed area where Project operations and maintenance activities that include ground disturbance, such as pole brushing and road maintenance, would not be conducted. Therefore, Project operations and maintenance would not impact resource P-37-032160 and an adverse change in the significance of a tribal cultural resource would not occur.

3.19 Utilities and Service Systems

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
19.	**UTILITIES AND SERVICE SYSTEMS — Would the project:**				
a)	Require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒
b)	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☐	☒
c)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d)	Generate solid waste in excess of state or local standards or in excess of the capacity of local infrastructure?	☐	☒	☐	☐
e)	Negatively impact the provision of solid waste services or impair the attainment of solid waste reduction goals?	☐	☒	☐	☐
f)	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☒	☐	☐

This section describes the existing environmental and regulatory setting of the Project and addresses the impacts on water, wastewater, storm drainage, electric power, natural gas, telecommunications, and solid waste systems that would result from construction, operation, and maintenance of the Project. For the purposes of this analysis, the study area includes the Project site and vicinity, including the footprint of all areas of Project-related temporary and/or permanent ground disturbance.

3.19.1 Environmental Setting

Water Services

In addition to the Vallecitos Water District (VWD), described below, which would provide all of the water for the Project, communities near the Project receive water services through the Carlsbad Municipal Water District, Olivenhain Municipal Water District, the City of Escondido Water Division, and the Vista Irrigation District. However, because these water districts would not supply the Project with water, they are not described in detail below.

San Diego County Water Authority

The San Diego County Water Authority (SDCWA) is a water wholesaler made up of 24 member water agencies including several that serve communities near the study area: the Carlsbad

Municipal Water District, the City of Escondido Water Division, the Vista Irrigation District, the Olivenhain Municipal Water District, and the VWD. SDCWA purchases approximately 40 percent of its water from the Metropolitan Water District of Southern California and approximately 21 percent of its water supply from Imperial Irrigation District. The remaining 39 percent of SDCWA water supply comes from a mix of sources including water conserved by lining parts of the Coachella and All-American Canals, water from the Carlsbad Desalination Plant managed by SDCWA, recycled water, groundwater, and local surface water (SDCWA, 2018).

Vallecitos Water District

The VWD serves a population of over 98,000 customers within its 45-square-mile area, which includes the City of San Marcos (VWD, 2018a). The VWD purchases all of its potable water supply from the SDCWA. The VWD also provides recycled water through the Meadowlark Water Reclamation Facility (VWD, 2016).

Wastewater Services

San Diego County

The majority of wastewater treatment and disposal in unincorporated San Diego County is handled by regional systems managed by public water or sewer districts, small wastewater treatment facilities operated by independent districts or the County, or through onsite underground sewage disposal systems septic tanks (San Diego County Department of Public Works, 2018; SDG&E, 2017).

City of Carlsbad

The City of Carlsbad provides wastewater collection services through 288 miles of sanitary sewer pipelines that deliver wastewater to the Encina Wastewater Authority (EWA). At EWA, the wastewater is treated and either released into the ocean or treated further at the Encina Water Pollution Control Facility (EWA, 2018). Wastewater collection and treatment in the southern portions of the city are provided by the Leucadia Wastewater District or the VWD (City of Carlsbad, 2018). The City of Carlsbad jointly owns two large-capacity pump stations with the City of Vista; wastewater infrastructure in the City of Vista is described below.

City of Escondido

The Wastewater Division of the City of Escondido is responsible for the collection, treatment, and disposal of wastewater within its service area. Wastewater is collected through approximately 360 miles of pipelines and 11 pumping stations and is treated at the Hale Avenue Resource Recovery Facility, which produces approximately 9.0 mgd of tertiary treated recycled water that is used for landscape and industrial uses. Water that is not beneficially reused elsewhere is discharged to the Pacific Ocean (City of Escondido, 2018).

City of Vista

The City of Vista operates over 215 miles of sewer collection pipelines, as well as one small-capacity pump station. Additionally, the City of Vista and the City of Carlsbad jointly own and

operate two large-capacity pump stations and associated pipelines. The Buena Sanitation District, an entity of the City of Vista, owns and operates 101 miles of wastewater pipelines and one large capacity pump station. These collection systems deliver sewage to the Encina Water Pollution Control Facility in the City of Carlsbad, described above (City of Vista, 2018).

City of San Marcos

Wastewater services in the City of San Marcos are provided by the VWD, which has 270 miles of pipelines. Approximately 74 percent of wastewater generated in the district served by VWD is treated and recycled at the Meadowlark Water Reclamation Facility. Recycled water produced at the facility is then sold to neighboring water districts and is used for irrigation (VWD, 2018b).

Solid Waste and Recycling Services

Solid waste in San Diego County may be disposed of locally at one of three active and permitted landfills, listed below in **Table 3.19-1**. Additionally, San Diego County operates eight transfer stations and various recycling programs (San Diego County, 2017). SDG&E has identified the Otay Landfill in Chula Vista as a landfill that is approved to accept treated wood waste (SDG&E, 2017, page 83). The Otay Landfill, West Miramar Landfill, and Las Pulgas Landfill are all approved by the San Diego RWQCB to accept treated wood waste (Department of Toxic Substances Control, 2013); however, for this report it is assumed that SDG&E would use Otay Landfill for treated wood waste disposal. As of 2016, the Otay Landfill had approximately 21,194,000 cubic yards of capacity remaining, or approximately 34 percent of the landfill's maximum permitted capacity (CalRecycle, 2018).

TABLE 3.19-1
STUDY AREA LANDFILLS

Facility	Type of Waste Accepted	Location	Distance from the Project	Remaining Capacity (cy)	Daily Capacity tons/day
Sycamore	Asbestos, Contaminated soil, Mixed municipal, Sludge (BioSolids), Agricultural, Dead Animals, Tires, Shreds, Wood waste, Other designated, treated wood	San Diego	18 miles southeast	113,972,637 (as of December 31, 2016)	5,000
West Miramar Sanitary Landfill	Construction/demolition, Mixed municipal, Tires	San Diego	12.7 miles southwest	15,527,878 (as of June 30, 2014)	8,000
Otay Landfill	Nonhazardous. Agricultural, Ash, Construction/demolition, Contaminated soil, Dead Animals, Green Materials, Industrial, Inert, Mixed municipal, Other designated, Sludge (BioSolids), Tires, Treated Wood	Chula Vista	35 miles south	21,194,008 (as of May 31, 2016)	6,700

SOURCE: CalRecycle, 2018

3.19.2 Regulatory Setting

Federal

No federal regulations pertaining to utilities and service systems apply to the Project.

State

Porter-Cologne Water Quality Control Act

The State of California's Porter-Cologne Water Quality Control Act gives the authority of water quality regulation to the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs). The San Diego RWQCB serves the study area. The San Diego RWQCB prepares and updates the Water Quality Control Plan for the San Diego Basin (Basin Plan). Additionally, the San Diego RWQCB issues National Pollutant Discharge Elimination System (NPDES) permits and Waste Discharge Requirements in accordance with the Clean Water Act NDPES program. See Section 3.9.2, *Hydrology and Water Quality*, where the Porter-Cologne Water Quality Control Act is described in more detail.

NPDES Construction General Permit

Construction activities disturbing one acre or more of land, which includes the Project, are subject to the permitting requirements of the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (Construction General Permit) and must apply for Construction General Permit coverage. For all new projects, applicants must electronically file permit registration documents using the Stormwater Multiple Applications and Report Tracking Systems (SMARTS), and must include a Notice of Intent (NOI), risk assessment, site map, and stormwater pollution prevention plan (SWPPP) to be covered by the General Construction Permit prior to beginning construction. The risk assessment and SWPPP must be prepared by a State-Qualified SWPPP Developer (QSD). See Section 3.9, *Hydrology and Water Quality*, for more detailed discussion relative to water quality.

SWRCB Order WQ-2016-0068-DDW

This SWRCB-adopted order permits temporary and permanent uses of tertiary-treated recycled water for allowed construction activities including dust control, soil compaction, concrete mixing, housekeeping (e.g., street sweeping), and hydrostatic testing (SWRCB, 2016).

San Diego RWQCB Waiver No. 2 – "Low Threat" Discharges to Land

This waiver facilitates the discharge of recycled water to land in the area subject to the jurisdiction of the San Diego RWQCB. Temporary uses of tertiary-treated recycled water, including dust control, soil compaction, concrete mixing, and housekeeping (e.g., street sweeping), are permitted via this wavier.

California Integrated Waste Management Act

The Integrated Waste Management Act of 1989 (Pub. Res. Code Section 40050 et seq.), as amended, required each local agency to divert 50 percent of all solid waste generated within the

local agency by January 1, 2000. The Act requires local agencies to maximize the use of all feasible source reduction, recycling, and composting options before using transformation (incineration of solid waste to produce heat or electricity) or land disposal. The Act also resulted in the creation of the State agency now known as CalRecycle. Under the Act, local governments develop and implement integrated waste management programs consisting of several types of plans and policies, including local construction and demolition ordinances described in more detail below. The Act also set into place a comprehensive statewide system of permitting, inspections, and maintenance for solid waste facilities, and authorized local jurisdictions to impose fees based on the types and amounts of waste generated.

Title 22 California Code of Regulations Division 4.5

Title 22 of the California Code of Regulations, Division 4.5, discusses an array of requirements with respect to the disposal and recycling of hazardous and universal wastes. Specific standards and requirements are included for the identification, collection, transport, disposal, and recycling of hazardous wastes. Additional standards are included for the collection, transport, disposal, and recycling of universal wastes, identified in Section 66273.9 of Title 22 of the California Code of Regulations. Requirements include recycling, recovery, returning spent items to the manufacturer, or disposal at an appropriately permitted facility. Division 4.5 of Title 22 also provides restrictions and standards relevant to waste destination facilities, and provides authorization requirements for various waste handlers.

Title 22 also regulates the treatment and use of recycled water. It lists 40 specific allowed uses of disinfected tertiary recycled water (such as irrigating parks), 24 specific allowed uses of disinfected secondary recycled water (such as irrigating animal feed and other unprocessed crops), and seven specific allowed uses of undisinfected secondary recycled water (such industrial uses). Certain Project-related construction activities that could utilize recycled water include dust suppression, soil compaction, and street cleaning.

2016 California Green Building Standards Code

As amended, California's Green Building Standards Code (CALGreen; Title 24 Cal. Code Regs., Part 11) requires that nonresidential building projects recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste, or meet a local construction and demolition waste management ordinance, whichever is more stringent (§ 5.408.1). Additionally, 100 percent of trees, stumps, rocks, and associated vegetation and soils resulting primarily from land clearing must be reused or recycled unless contaminated by disease or pest infestation (§ 5.408.3). The 2016 version of the code increased the minimum diversion requirement for nonhazardous construction and demolition waste to 65 percent from 50 percent (in the 2013 and earlier versions) in response to Assembly Bill 341, which declared that it is the policy goal of the State that not less than 75 percent of solid waste generated be source reduced, recycled, or composted by the year 2020. Therefore, some local ordinances still list minimums that are less stringent than (and therefore overridden by) the statewide requirement. Of the local jurisdictions in the study area, only San Diego County has adopted more stringent construction and demolition waste diversion requirements than the CALGreen code; therefore, only that ordinance is described below.

Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Project. Pursuant to CPUC General Order (GO) 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." Thus, discretionary actions by local jurisdictions would not apply to the Project. However, details that relate to local policies and regulations regarding discretionary actions are provided below for informational purposes.

County of San Diego

General Plan

The following general plan goals and policies are potentially relevant to public utilities and services:

> **Goal LU-13:** Adequate Water Quality, Supply, and Protection. A balanced and regionally integrated water management approach to ensure the long-term viability of San Diego County's water quality and supply.
>
> > ***Policy LU-13.2*:** Commitment of Water Supply. Require new development to identify adequate water resources, in accordance with State law, to support the development prior to approval.
>
> **Goal LU-14:** Adequate Wastewater Facilities. Adequate wastewater disposal that addresses potential hazards to human health and the environment.
>
> > ***Policy LU-14.1*:** Wastewater Facility Plans. Coordinate with wastewater agencies and districts during the preparation or update of wastewater facility master plans and/or capital improvement plans to provide adequate capacity and assure consistency with the County's land use plans. (San Diego County, 2011)

Construction and Demolition Debris Recycling Ordinance

San Diego County's Construction and Demolition Debris Recycling Ordinance (Ordinance No. 9840) applies to projects greater than 40,000 square feet in area and requires that 90 percent of inert materials and 70 percent of all other materials be recycled or reused. The ordinance is enforced through a building or demolition permitting process; however, per County Code Section 91.1.105.2(a)(15), public utility towers and poles do not require a building permit.

City of Carlsbad General Plan

The following general plan goals and policies in the Sustainability Element and Open Space, Conservation, and Recreation Element are potentially relevant to public utilities and services:

> ***Policy 9-P.5*:** Undertake measures to expand the use of recycled water for landscape irrigation and commercial and industrial process water. Encourage potential future customers identified in the latest Recycled Water Master Plan to retrofit their water systems to utilize recycled water as it becomes available and cost-effective to do so.

***Policy 9-P.9*:** Adopt a construction and demolition waste recycling ordinance that requires, except in unusual circumstances, all construction, demolition and renovation projects meeting a certain size or dollar value, to divert from landfills 100 percent of all Portland cement concrete and asphalt concrete and an average of at least 50 percent of all remaining non-hazardous debris from construction, demolition, and renovation projects.

***Policy 4-P.57*:** Work with the stakeholders in the community and region, such as but not limited to the San Diego Regional Water Quality Control Board, California Fish and Wildlife, US Fish and Wildlife, Coastal Commission, Army Corps of Engineers, Environmental Protection Agency, neighboring cities, counties, businesses, residents, and non-profit groups, to comply with applicable federal, state, and local regulations related to water quality in our region, consistent with the city's current NPDES Municipal Storm Water Permit issued by the RWQCB or other related regulations. Prepare and implement any applicable plans such as a Water Quality Improvement Plan, Integrated Regional Water Management Plan, Load Reduction Plan, or others as needed to comply with applicable regulations.

***Policy 4-P.58*:** Require developments to incorporate structural and non-structural best management practices (BMPs) to mitigate or reduce the projected increases in pollutant loads. Do not allow post-development runoff from a site that would cause or contribute to an exceedance of receiving water quality objectives or has not been reduced to the maximum extent practicable. (City of Carlsbad, 2015)

City of San Diego General Plan

The following general plan goals and policies in the Public Facilities and Services Element are potentially relevant to public utilities and services:

Goal: Maximum diversion of materials from disposal through the reduction, reuse, and recycling of wastes to the highest and best use.

***Policy PF-I.2*:** Maximize waste reduction and diversion.

a) Maximize the separation of recyclable and compost materials.

b) Reduce and recycle Construction and Demolition (C&D) debris. Strive for recycling of 100 percent of inert C&D materials and a minimum of 50 percent by weight of all other material.

c) Use recycled, composted, and post-consumer materials in manufacturing, construction, public facilities and in other identified uses whenever appropriate. (City of San Diego, 2008)

City of Escondido General Plan

The City of Escondido General Plan Mobility and Infrastructure element establishes goals and policies for the appropriate development of water, wastewater, and sewer systems to meet growth needs. The following policies pertain to wastewater and stormwater:

Water System Policy 12.2: Maintain adequate water supply, treatment, and distribution capacity to meet normal and emergency situations to provide a minimum standard of 540 gallons per day per household. This standard should be periodically reviewed and

modified by updates to the Water Master Plan to account for changes in water supply, demands, and conservation practices.

***Water System Policy 12.5*:** Require new development to provide adequate water facilities and/or finance the costs of improvements necessary to serve the demands created by the development and/or anticipated growth determined by the city, as appropriate. Establish a system for the reimbursement of construction costs for backbone water system improvements in master planned development projects involving multiple phases and developers.

***Wastewater System Policy 13.5*:** Require new development to provide adequate wastewater facilities and finance the costs of improvements necessary to serve the additional demands created by the development and/or anticipated growth determined by the city, as appropriate. Establish a system for the reimbursement of construction costs for backbone wastewater system improvements in master planned development projects involving multiple phases and developers.

***Storm Drainage Policy 14.4*:** Require new development to create a mechanism to finance and fund ongoing maintenance of stormwater facilities. Storm Drainage Policy 14.5: Require new development to prepare drainage studies and improvement plans that demonstrate no net increase in stormwater runoff and compliance with adopted stormwater plans.

***Storm Drainage Policy 14.7*:** Require new development and redevelopment to minimize stormwater runoff and contaminants entering drainage facilities by incorporating low impact development measures and other on-site design features such as bio-swales, retention ponds, and cisterns for storage and infiltration, treatment of flows, and appropriate best management practices (BMP) consistent with the National Pollutant Discharge Elimination System (NPDES) (City of Escondido, 2012)

City of San Marcos General Plan

The City of San Marcos General Plan Land Use and Community Design Element provides goals, and policies intended to guide the planning of water, wastewater, and sewer systems:

***Policy LU-13.1*:** Work closely with local and regional water providers to ensure high quality water supplies are available for the community.

***Policy LU-13.2*:** Actively promote water conservation programs aimed at reducing demand.

***Policy LU-14.1*:** Work closely with local service providers to ensure an adequate wastewater system for existing and future development is in place.

***Policy LU-14.2*:** Ensure development approval is directly tied to commitments for the construction or improvement of primary water, wastewater, and circulation systems.

***Policy LU-15.4*:** Retain drainage courses in their natural condition, to the extent possible. Consider smaller-scale drainage improvements to protect the environment and avoid disturbing natural drainage courses; consider detention areas and raised building pads.

***Policy LU-16.1*:** Work closely with local service providers to ensure adequate solid waste disposal, collection, and recycling services.

***Policy LU-16.2*:** Increase recycling, composting, source reduction, and education efforts throughout the city to reduce the amount of solid waste requiring disposal at landfills.

***Policy LU-17.1*:** Coordinate with all communications and utility companies (electrical, gas, telephone, cable, satellite and future utilities) in the provision of services throughout the community and the installation and maintenance of facilities in their respective franchise areas. (City of San Marcos, 2012)

City of Vista General Plan

The City of Vista General Plan Public Safety, Facilities, and Services Element provides goals and policies to provide acceptable levels of public safety and infrastructure to the people of the city.

PSFS Goal 9: Continue to provide sanitary sewer facilities to accommodate the safe, efficient, and cost-effective disposal of waste, commensurate with existing and proposed development.

PSFS Goal 10: Continue to provide drainage facilities to adequately collect surface runoff to mitigate flooding and improve water quality.

PSFS Goal 11: Continue to ensure that the City has an adequate, safe, and reliable water supply to meet the existing and planned needs of the community.

PSFS Goal 16: Provide and maintain public infrastructure and utilities that support existing and planned land uses and development in a cost-effective and responsible manner.

***PSFS Policy 16.1*:** Determine public infrastructure and utility needs to implement the General Plan and prioritize them through the City's Capital Improvement Projects (CIP).

***PSFS Policy 16.2*:** Evaluate existing public infrastructure and utilities to determine deficiencies and identify ongoing maintenance and/or replacement needs, and prioritize and implement them through the CIP and Operation and Maintenance (O&M) investment (City of Vista, 2012)

3.19.3 Applicant Proposed Measures

No Applicant Proposed Measures (APMs) have been identified that would address potential impacts on utilities or service systems.

3.19.4 Environmental Impacts

Discussion

a) The Project would not require or result in the relocation or construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects: *NO IMPACT.*

Water and Wastewater Treatment

The Project would not require or result in the relocation or construction of new or expanded water or wastewater treatment facilities. The Project would require water use during construction for

dust control on access roads, soil compaction during grading, and establishment of landscaping. This water would be supplied by VWD as discussed under Question b. and would not require the construction of new or expanded water facilities. Therefore, no impact would occur.

Construction activities, such as ground excavations, have the potential to damage existing utilities, including water mains, storm drains, and sewer lines. As described in Section 2.5.9, *Belowground Construction,* underground Project components would be constructed within duct banks. In locations where these banks cross or run parallel to other utility lines, a minimum radial clearance of 12 inches would be required. In locations where the distribution duct bank would be installed parallel to other substructures, a minimum radial clearance of 24 inches would be required, as described in Section 2.5.9, *Belowground Construction.* The radial clearance of the duct banks would, therefore, prevent any impacts of the Project on ongoing water or wastewater treatment for which such nearby water utility lines would be used. No operation- or maintenance-related activity is expected to displace or destroy existing infrastructure related to water or wastewater treatment facilities such as water wells, pipelines, or other facilities.

The Project would generate minimal wastewater. During construction, portable sanitary systems would be provided at staging areas and would not be connected to the local wastewater system. Construction activities would be temporary, lasting approximately 12 months. As described in Section 2.5.1, *Construction Workforce and Equipment,* the Project would employ a maximum of 80 employees who would work in crews working concurrently at separate locations. As a result, wastewater generated from portable worker facilities during construction would be limited and would be handled by a licensed sanitation contractor which would dispose of the waste at an offsite location in compliance with San Diego RWQCB standards.

As described in Section 2.5.9, *Belowground Construction*, dewatering may be necessary in some locations. If dewatering related to pier foundation installation were to occur, it is estimated not to exceed 550 cubic yards or 111,000 gallons. The SWPPP would detail proposed dewatering procedures, ensuring that they are completed in accordance with relevant San Diego RWQCB standards and requirements. It is anticipated that water from dewatering would be disposed of on land and not to wastewater infrastructure.

Project operation and maintenance activities would be substantially similar to operation and maintenance of existing facilities. Once the Project is operational, some maintenance activities would no longer be necessary, such as insulator washing. Additionally, no changes or additions to existing staffing for operation and maintenance activities are proposed. Therefore, no additional wastewater would be generated during operation and maintenance. Therefore, Project construction, operation, and maintenance would not require the construction of additional water or wastewater treatment infrastructure. The Project would have no impact with respect to these facilities. Thus, no impact would occur.

Storm Water Drainage

The Project would not substantially increase the amount of impervious surfaces within the study area. As a result, the Project would not generate a substantial amount of additional storm water runoff. Grading could result in small changes to the existing drainage patterns on site. However,

construction sites within the study area would be graded similarly to existing slopes along the Project alignment. Therefore, grading would not substantially increase the existing velocity or volume of stormwater flows either onsite or in offsite areas. Additionally, the implementation of the Stormwater Pollution Prevention Plan (SWPPP) would include BMPs designed to control stormwater flows resulting from the Project. As described in Section 2.6.3, *Wastewater and Surface Water Runoff*, the BMPs would be monitored and revised as needed, in order to respond to construction conditions. The Project would not require the construction of a new stormwater drainage facility; therefore, there would be no impact with regard to stormwater drainage.

Electric Power, Natural Gas, and Telecommunications

As described in Section 3.6, *Energy*, the Project consists of constructing new overhead power line structures, rebuilding existing structures, and reconductoring and re-energizing approximately 12 miles of a 69 kV overhead electric power line to address projected reliability issues. The Project in itself would not generate new electric energy demand or demand for natural gas and, thus, would not require or result in the construction of additional energy facilities to meet its energy demand. Additionally, the Project would not result in the need for new telecommunications facilities, although existing telecommunication lines co-located on existing SDG&E structures would need to be relocated onto the new structures. This relocation is expected to be a routine task and would not result in the disruption of service. Therefore, no impact would occur.

b) The Project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years: *NO IMPACT.*

As described in Section 2.5.10, *Water Supply and Use*, the Project would require up to 3,077,000 gallons of water (less than one acre-foot) for construction activities such as dust control, grading, and concrete preparation. Water for such activities would be supplied by VWD. VWD provided a Will Serve Letter to SDG&E on October 19, 2017, which confirmed the availability of potable VWD water resources for Project construction at that time, but acknowledged that as VWD's water source is 100 percent imported, it is possible that adequate water may not be available when the Project is ultimately constructed (VWD, 2017). VWD's 2015 Urban Water Management Plan acknowledges that supply shortfalls could occur in dry and multiple dry year scenarios, but indicates that based on information provided by the SDCWA, the water supply available to VWD is considered to be reliable. Additionally, the plan notes that the purchase of 3,500 acre-feet per year of contracted desalinated seawater supply through SDCWA from the Carlsbad Desalination Plant will improve the overall reliability of VWD's available water supply during multiple dry-year scenarios (VWD, 2015). The Project's short-term demand for water during construction represents less than 0.03 percent of that annual water purchase, and would not be a recurring demand. Operation and maintenance activities would be substantially similar to operation and maintenance of existing facilities, and changes in operational water needs would be negligible. Therefore, Project construction and operation would have no effect on water supplies available to serve reasonably foreseeable future development, and no impact would occur.

c) The Project would not result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments: *NO IMPACT.*

As described under Questions a and b, the primary use of water during Project construction would be for dust control, in which case water would either evaporate or be absorbed into the ground and would not require treatment as wastewater. Additional runoff generated by other construction activities or increases in impervious surfaces would be managed and controlled by the SWPPP. Construction would generate small volumes of sanitary wastewater, which would be disposed of by a licensed provider with capacity to meet the Project's needs.

Wastewater generation during operation and maintenance would be similar to existing conditions. No new wastewater-generating facilities would be constructed or operated as part of the Project. The Project would not cause a wastewater treatment provider to determine that it has inadequate capacity to serve the Project's projected demand in addition to its existing commitments; therefore, no impact would occur.

d) The Project would not generate solid waste in excess of state or local standards or in excess of the capacity of local infrastructure: *LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.*

Construction activities would generate various waste materials including concrete, plastic, metals, utility poles, utility line cables, and general waste such as paper, soil, vegetation, treated wood, conductors, insulators, and other pole hardware. As described in Section 2.5.12, *Waste Management, Cleanup, and Post-Construction Restoration* and in Table 2-12, SDG&E would reuse or recycle any salvageable structures, poles, materials, and components. Any material that cannot be reused or recycled would be collected and properly disposed of off-site. Wooden poles removed during construction would be disposed of in a composite-lined portion of a municipal solid waste landfill approved by the San Diego RWQCB. As described in Section 3.19.1, *Environmental Setting, Solid Waste and Recycling Services*, SDG&E intends to use Otay Landfill to dispose of treated wood poles. Otay Landfill has sufficient permitted capacity to accommodate the needs of the Project. A relatively small amount of hazardous or otherwise regulated waste would be generated during construction and demolition activities. Impacts related to hazardous wastes are discussed in Section 3.8, *Hazards and Hazardous Materials*.

There are no State or local standards limiting the amount of solid waste that can be generated by a project of this nature. However, there are statutes, goals, and policies directing the diversion of a percentage of all wastes generated. As described in Section 3.19.2, *Regulatory Setting*, compliance with the CALGreen code requires that nonresidential building projects recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste *or* meet a local construction and demolition waste management ordinance, whichever is more stringent. San Diego County has adopted a more stringent requirement of recycling or reusing 90 percent of inert materials and 70 percent of all other materials. Because the Project would not be required to obtain a building permit from San Diego County, no mechanism exists to require or enforce the Project's compliance with the County's construction and demolition waste diversion requirements. However, because these requirements are more stringent than the CALGreen

requirement of 65 percent of nonhazardous construction and demolition waste, per CALGreen Section 5.408, the Project would have the potential to impair the attainment of solid waste reduction goals unless it meets the more stringent requirements of this ordinance.

A significant impact would occur if the Project did not comply with the CALGreen code by meeting these more stringent diversion requirements, because the Project would not meet regionally appropriate sector-specific targets for complying with the California Integrated Waste Management Act. Therefore, in order to achieve compliance with State regulations, the Project would incorporate **Mitigation Measure US-1** and would recycle and/or reuse 90 percent of inert materials and 70 percent of all other materials, as well as 100 percent of trees, stumps, rocks, and other vegetation. This would ensure that the Project is in compliance with the requirements of the CALGreen code. With implementation of this mitigation measure, impacts would be less than significant.

> **Mitigation Measure US-1: Construction and Demolition Debris Recycling Ordinances.** SDG&E and its contractors shall recycle and/or reuse 90 percent of inert materials and 70 percent of all other materials, as well as 100 percent of trees, stumps, rocks, and other vegetation. In order to document and track such diversions, the applicant shall provide the following:
>
> - Prior to construction, the Applicant shall provide a preliminary Construction and Demolition Debris Register (Preliminary Debris Register) that lists all anticipated construction and demolition solid waste streams (by weight) along with how the project will dispose/divert each waste. The Preliminary Debris Register shall also list the anticipated destination(s) (i.e., location or facility) for each waste stream. The Preliminary Register shall document how the project shall achieve the minimum waste diversion percentages.
> - During construction activities, the Applicant shall keep records (e.g., a log) on site documenting the disposal and/or diversion of all construction and demolition debris that leaves the project site. The Applicant shall also keep copies of all corresponding receipts or similar documentation from solid waste facility, recycling center, green waste facility, or other permitted facility.
> - During construction activities, the Applicant shall provide updates for solid waste diversion to the CPUC as part of the Quarterly Project Status Reports required by the Mitigation Monitoring, Reporting, and Compliance Program (MMRCP).
> - Following the completion of construction activities, the Applicant shall provide a Final Debris Register that documents the final construction and demolition debris totals, destinations, and diversion percentages. The Final Debris Register shall document the Project's final compliance with the minimum diversion percentages.
>
> **Significance after Mitigation:** With the incorporation of Mitigation Measure US-1, the Project would not generate solid waste in excess of state or local standards. Therefore, the Project's impact would be less than significant.

e) The Project would not negatively impact the provision of solid waste services or impair the attainment of solid waste reduction goals: *LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.*

The Project would have no effect on the provision of solid waste services within the Project vicinity. As described under Question d, the Project could have a significant impact on the attainment of solid waste reduction goals by failing to comply with the most stringent applicable waste diversion requirements. However, in order to comply with the California Integrated Waste Management Act, the Project would adopt **Mitigation Measure US-1** which would require that the Project divert at least 90 percent of inert wastes and at least 70 percent of all other non-hazardous solid waste from disposal at landfills. This would include: wood poles and associated hardware, conductors, and insulators; scrap steel, copper, and other metals; concrete; soils; and batteries. Surplus soils would be minimal and would be used to refill holes left after the removal of poles. As shown in Table 3.19-1, landfills near the Project have been identified to have sufficient capacity for waste generated during construction. Project operation and maintenance would generate negligible waste and would not significantly differ from existing conditions. As described in Section 3.19.1, *Environmental Setting, Solid Waste and Recycling Services,* landfills near the Project would have enough capacity to accept any generated hazardous and nonhazardous waste from the Project.

> **Mitigation Measure US-1: Construction and Demolition Debris Recycling Ordinances.** See full text of this Mitigation Measure under Question d, above.
>
> **Significance after Mitigation:** With the incorporation of waste diversion requirements identified in Mitigation Measure US-1, the Project would not impair the attainment of solid waste reduction goals or negatively impact the provision of solid waste services. Therefore, impacts would be less than significant.

f) The Project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste: *LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.*

As discussed above, the Project would generate waste during construction and minimal waste during operation and maintenance. The Project could have a significant impact if it did not comply with federal, state, and local management and reduction statutes and regulations related to solid waste. However, through the implementation of **Mitigation Measure US-1** the impact would be less than significant.

> **Mitigation Measure US-1: Construction and Demolition Debris Recycling Ordinances.** See full text of this Mitigation Measure under Question d, above.
>
> **Significance after Mitigation:** With the incorporation of Mitigation Measure US-1, the Project would comply with federal, State, and local management and reduction statutes and regulations related to solid waste. Therefore, the impacts would be less than significant.

3.19.5 References

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3.20 Wildfire

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
20.	**WILDFIRE — If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:**				
a)	Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b)	Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☒	☐	☐
c)	Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d)	Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☒	☐	☐

This section identifies and evaluates issues related to wildfire in the context of the Project. It includes a description of designated wildfire hazard zones that the Project crosses through as well as a discussion of the existing fire environment. This section further provides a discussion of applicable State, regional, and local plans and programs, and an evaluation of potential impacts associated with implementation of the Project. For the purposes of this analysis of wildfire risk, the study area is defined as the SDG&E right-of-way (ROW), existing access roads, and areas where housing and structures are located downstream or downslope of the Project. This area was chosen as the study area because the SDG&E ROW corresponds with the vegetation and wire clearance requirements identified in Section 3.20.2, *Regulatory Setting*.

3.20.1 Environmental Setting

Fire Protection Services

Section 3.15, *Public Services*, describes the fire protection services provided by a number of different State and local entities, including Battalion 7 of the San Diego Unit of the Southern Region of the California Department of Forestry and Fire Protection (CAL FIRE), the San Diego County Fire Authority, the fire departments of the cities of Carlsbad, Escondido, San Marcos, and Vista, and the Rancho Santa Fe Fire Protection District. These agencies would have responsibility for responding to fires in the study area.

CAL FIRE-Designated Wildfire Hazard Zones

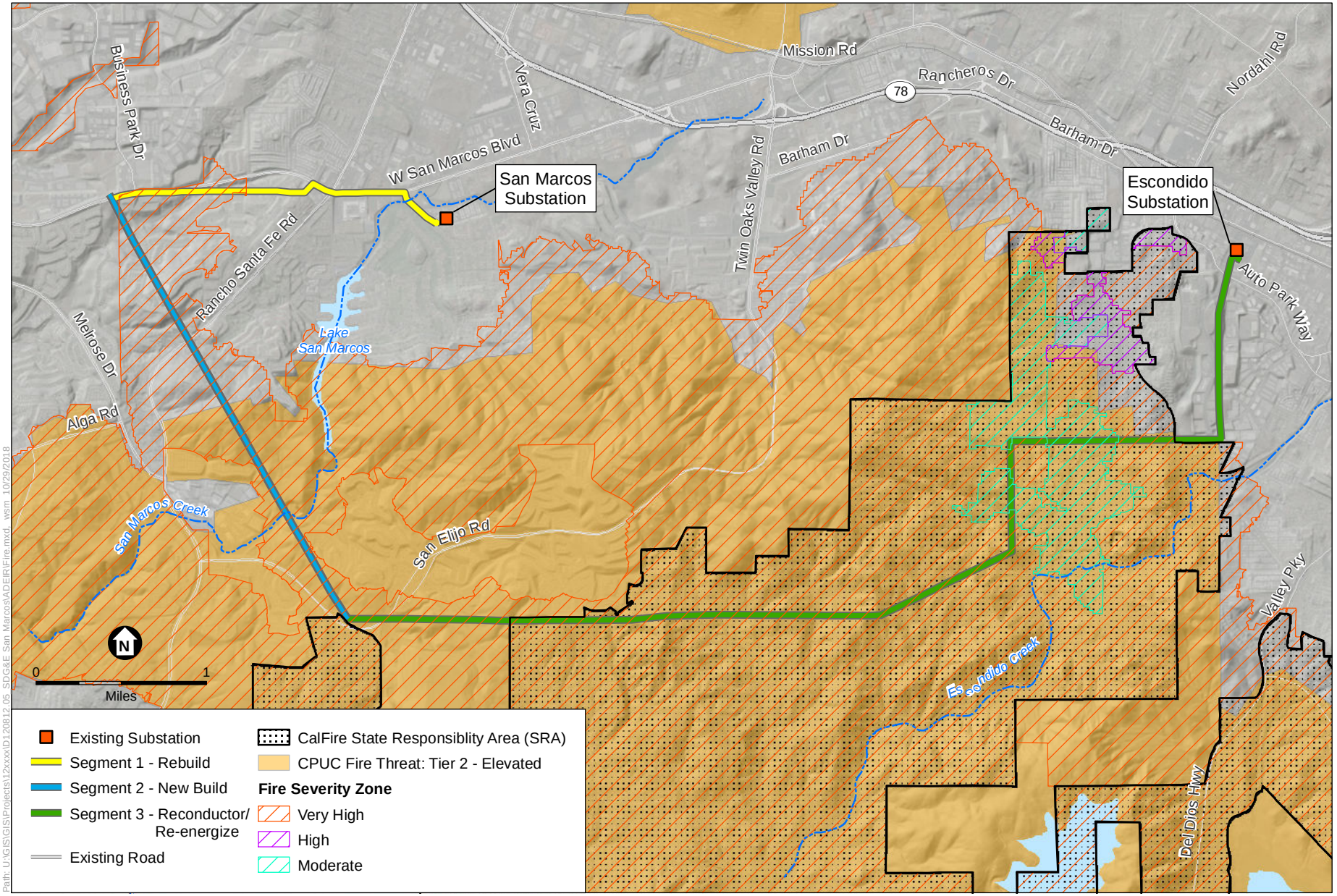
CAL FIRE has published Draft Fire Hazard Severity Zones for both Local Responsibility Areas (LRAs) and State Responsibility Areas (SRAs). SRAs are the official boundaries where the State

of California (through CAL FIRE) has the primary legal and financial responsibility for the prevention and suppression of wildland fires. In the vicinity of the Project, SRA boundaries are approximately contiguous with unincorporated San Diego County, with the exception of the Lake San Marcos neighborhood, as shown in **Figure 3.20-1**. CAL FIRE provides a basic level of wildland fire prevention and protection services for these designated areas (CAL FIRE, 2012a). LRAs include incorporated cities and densely populated areas. Fire protection within these areas is typically provided by city fire departments, fire protection districts, counties, and by CAL FIRE under contract to local governments (CAL FIRE, 2012b). These maps give fire hazards either a "moderate," "high," or "very high" rating classification. As identified in Figure 3.20-1, CAL FIRE has mapped a majority of the Project, excluding the Escondido substation, as being in moderate to very high fire hazard severity zones (CAL FIRE, 2007, 2009). The portions of the Project alignment which would be located in a very high fire hazard severity zone would pass through San Marcos, the community of Lake San Marcos, the community of San Elijo, the communities of Elfin Forest and Harmony Grove, and would be located adjacent to the City of Vista and the community of Olivenhain. The staging yard at 12332 Vigilante Road in Lakeside is in a very high fire hazard severity zone. The majority of Segment 3 is located in a CAL FIRE SRA.

CPUC-Designated Wildfire Hazard Zones

In response to the CPUC's Fire Safety Rulemaking, the CPUC mapped high fire threat areas where more stringent requirements would be implemented due to the elevated risk for power line fires. The CPUC High Fire Threat District Map identifies three tiers of elevated risk for fires associated with utilities. As shown in Figure 3.20-1, the majority of Segment 2 and 3 are located in an area designated as Tier 2 within the High Fire-Threat District. Tier 2 areas are defined as areas "where there is an elevated risk (including likelihood and potential impacts on people and property) from wildfires associated with overhead utility power lines" (CPUC, 2017a). Tier 2 areas are subject to more restrictive fire safety standards, as described in Section 3.20.2, *Regulatory Setting*. The portions of the Project alignment which would be located in a Tier 2 Fire Threat District would pass through San Marcos, the community of Lake San Marcos, the community of San Elijo, the communities of Elfin Forest and Harmony Grove, and would be located adjacent to the community of Olivenhain.

SDG&E has adopted and implemented the High Fire Threat District Map (SDG&E, 2018). While the CPUC developed the High Fire District Map, SDG&E created an interim map of its service territory to identify areas with particularly high risk for wildfire. Using CAL FIRE data, SDG&E established Fire Threat Zones (FTZ) and Highest Risk Fire Areas (HRFA). FTZs include the geographic areas most prone to wildfire due to local environmental conditions and features such as fuel rank and expected fire frequency. The FTZs include areas described in CAL FIRE's Fire Hazard Severity Zone as having an "extreme" or "very high" risk, as well as some areas with a "high" risk (SDG&E, 2017a). SDG&E's Electric Standard Practice 113.1 (described in Section 3.20.2, *Regulatory Setting*, uses the FTZ and HRFA zones to establish more restrictive standards for areas with an elevated risk for utility related wildfires. The majority of Segment 2 and 3 are located within a Fire Threat Zone. Segment 1 and both the San Marcos Substation and Escondido Substation are located outside of designated FTZ and HRFAs.



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SOURCE: SDGE, 2018; CalFire, 2009; CPUC, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.20-1

Designated Wildfire Hazard Zones

ESA

Fire Environment

Climate

The Project region has a Mediterranean climate characterized by warm to hot, dry summers and mild to cool winters. Summer temperatures range from mid- to upper 90 degrees Fahrenheit. Hot dry spells occasionally occur near the coastline and mountainous areas. The region receives an annual average of 12 to 15 inches of precipitation. Southern California's climate leads to two types of wildfire: wildfires driven by Santa Ana winds which typically spread rapidly and occur from September through December, and wildfires which typically occur during hot and dry weather from June to September, outside of the Santa Ana season (Jin et al., 2015). Santa Ana winds are a characteristic weather phenomenon in southern California. These strong, dry winds can occur in any time of the year but typically occur during the drier period of late summer and fall. Santa Ana winds are created when a pressure difference exists between a cold, interior air mass in the Great Basin and the pressure along the California Coast. This occurrence causes dry air from the Great Basin to move south around the Sierras and then westward toward Southern California, warming as they move toward the coast. These winds blow westward through canyons, often exceeding 40 miles per hour (CNAP, 2015). Due to the low humidity and high temperatures these winds bring with them, Santa Ana winds have the potential to severely exacerbate forest or brush fires (CAL FIRE, 2018a).

Topography and Vegetation/Fuels

The terrain in the study area is characterized by mesas, valleys, inland canyons, and small mountains. Terrain type has a strong influence over fire behavior.[1] Steep terrain can often increase fire behavior. The Project components cross various types of terrain and slopes of varying steepness. At some locations along Segments 2 and 3, housing is located downslope from the study area.

Vegetation in the inland canyon areas of the San Diego County typically contains chaparral species. Chaparral types of vegetation account for at least 70 percent of the vegetation in San Diego County. Vegetative cover type and species composition have a direct effect on fire behavior. The native shrub species that compose the majority of the chaparral vegetation types present a high potential fire hazard based on their structure and fuel loading (CAL FIRE, 2018a).

Impact of Wildfire on Air Quality

As wildfires burn fuel, large amounts of carbon dioxide, black carbon, brown carbon, and ozone precursors are released into the atmosphere. Additionally, wildfires emit a substantial amount of volatile and semi-volatile organic materials and nitrogen oxides that form ozone and organic particulate matter. These emissions can lead to harmful exposures for first responders, nearby residents, and populations in regions which are further from the wildfires (NOAA, 2018). Exposure to these pollutants can cause asthma attacks, coughing, and shortness of breath. Chronic exposure to these pollutants can increase the risk of developing chronic health conditions such as

[1] The U.S. Forest Service defines fire behavior as "The manner in which a fire reacts to the influences of fuel, weather, and topography" (USFS, 2018).

heart disease, diabetes, and cancer (Hamers, 2018; Milman, 2018). These pollutants are described in more detail in Section 3.3, *Air Quality*.

Fire History

The topography, vegetation, and climatic conditions in San Diego County often create a scenario of "fuel alignment" where individual conditions such as temperature, humidity, fuel type, wind conditions, and topography support large wildfires (CalFire, 2018a). These fuel and weather conditions help CAL FIRE administrators determine what times of the year conditions will be conducive to the ignition and spread of wildfire and; therefore, what the designated fire season should be.[2] In 2017, the fire season for the San Diego Unit was designated from June 12, 2017 to January 22, 2018 (CAL FIRE, 2017). The 2003 and 2007 Fire Siege burned over half a million acres of coastal sage, chaparral, and forest lands in San Diego County. Over the past 50 years, San Diego County has had a significant history of major fire incidents. From 2013 to 2017, 36 percent of fire ignition causes were unknown or "miscellaneous," while the leading known causes of ignition included smoking (23 percent), vehicles (14 percent), campfires (7 percent), equipment use and playing with fire (each 6 percent), and lightning (5 percent). Electrical power was responsible for approximately 1 percent of overall ignitions. In addition to the influence of readily available fuels, a rugged topography, and Santa Ana winds, the number of homes in the wildland-urban interface presents a challenge to fire management in the region. (CAL FIRE, 2018a)

Future Fire Regime

As the large-scale fires throughout Northern California and Southern California in 2017 and 2018 demonstrated, fires are getting bigger and more destructive and massive quick-spreading fires are becoming more frequent (Syphard, 2018). Many factors contribute to this change including long-term drought, changes in vegetation type and fuel loading, changing temperature and meteorological conditions, more homes in the wildland-urban interface, and increases in the numbers of human caused ignitions. Together, these climatic changes and human-driven changes has led to a shift in the fire regime in California. Continual pressures on the factors listed above such as rising temperatures, longer-term drought conditions, and continual expansion of human influence in perimeter wildland areas are expected to intensify wildfires in Southern California by the middle of the 21st century (Jin et al., 2015).

Emergency Response

As described in Section 3.9, *Hazards and Hazardous Materials*, emergency response is San Diego County is coordinated by the Office of Emergency Services (OES). OES also drafts and produces the Operational Area Emergency Operations Plan (OA EOP), a County document which includes specific information about existing evacuation routes, the development of evacuation routes, interagency coordination, and mutual aid agreements during fire and rescue operations. The OA EOP indicates that in the event of an evacuation, ground transportation routes will be the primary means of evacuation and major evacuation routes will be major ground transportation corridors.

[2] CAL FIRE defines the fire season as: "That portion of the year, generally 6 to 8 months in the summer and fall in California, declared such by the responsible public agency fire administrator. Declaration is based on fuel and weather conditions conducive to the ignition and spread of wildland fires" (CAL FIRE, 2016).

The OES has outlined primary evacuation routes as major interstates, highways, and prime arterials. Out of these major highways and arterials, Route 78 is located approximately 0.3 miles from the eastern terminus of the Project alignment and Interstate 15 is located approximately 0.6 miles from the eastern terminus of the Project alignment. The OA EOP does not designate specific evacuation routes and explains that these routes would be identified and coordinated by local law enforcement and emergency responders in an emergency situation. (OES, 2018)

In the 2011 Elfin Forest and Harmony Grove Community Plan, Issue CM-3.1 identified that many private roads in Elfin Forest are not adequately named or identified for adequate public safety responses (San Diego County, 2011). In order to address this, the community plan created a policy that the Elfin Forest- Harmony Grove Town Council create a naming system to name and map unnamed streets that could be used as emergency evacuation routes. The Rancho Santa Fe Fire Protection District identifies evacuation routes and wildfire emergency guides for communities within the designated Fire District boundaries. The Elfin Forest and Harmony Grove communities are both protected and served by the Rancho Santa Fe Fire Protection District (Rancho Santa Fe Fire Protection District, 2019). Further information on this Fire District can be found in Section 3.15, *Public Services*.

3.20.2 Regulatory Setting

Federal

There are no federal laws, regulations, or policies that are relevant to this analysis of wildfires.

State

California Public Utilities Code Section 702

This code section states that "Every public utility shall obey and comply with every order, decision, direction, or rule made or prescribed by the [CPUC] … in any way relating to or affecting its business as a public utility, and shall do everything necessary or proper to secure compliance therewith by all of its officers, agents, and employees."

California Public Utilities Commission General Orders

General Order 95

CPUC General Order 95 applies to construction and reconstruction of overhead electric lines in California. The replacement of poles, towers, or other structures is considered reconstruction and requires adherence to all strength and clearance requirements of this order. The CPUC has promulgated various Rules to implement the fire safety requirements of General Order 95, including:

- Rule 18A, which requires utility companies take appropriate corrective action to remedy Safety Hazards and General Order 95 nonconformances. Additionally, this rule requires that each utility company establish an auditable maintenance program.

- Rules 31.2, which requires that lines be inspected frequently and thoroughly. Rule 35, which requires that vegetation management activities be performed in order to establish necessary and reasonable clearances. These requirements apply to all overhead electrical supply and communication facilities that are covered by this General Order, including facilities on lands owned and maintained by California state and local agencies.
- Rule 38, which establishes minimum vertical, horizontal, and radial clearances of wires from other wires.
- Rule 43.2.A.2 which requires that for lines located within Tier 2 or Tier 3 zones, the wind loads required in Rule 43.2.A.1 be multiplied by a wind load factor of 1.1. (CPUC, 2018)

General Order 165

General Order 165 establishes requirements for the inspection of electric distribution and transmission facilities that are not contained within a substation. Utilities must perform "Patrol" inspections, defined as a simple visual inspection of utility equipment and structures that is designed to identify obvious structural problems and hazards, at least once per year for each piece of equipment and structure. "Detailed" inspections, where individual pieces of equipment and structures are carefully examined, are required every five years for all overhead conductor and cables, transformers, switching/protective devices, and regulators/capacitors. By July 1st of each year, each utility subject to this General Order must submit an annual report of its inspections for the previous year under penalty of perjury. (CPUC, 2017b)

General Order 166

General Order 166 Standard 1.E requires that IOUs develop a Fire Prevention Plan which describes measures that the electric utility will implement to mitigate the threat of power-line fires generally. Additionally, this standard requires that IOUs outline a plan to mitigate power line fires when wind conditions exceed the structural design standards of the line during a Red Flag Warning[3] in a high fire threat area. Fire Prevention Plans created by IOUs are required to identify specific parts of the utility's service territory where the conditions described above may occur simultaneously. Standard 11 requires that utilities report annually to the CPUC regarding compliance with General Order 166 (CPUC, 2017c). In compliance with Standard 1.E of this General Order, SDG&E adopted a Fire Prevention Plan on October 31, 2017 and updated the plan on October 31, 2018. As described in Section 3.20.1, Environmental Setting, SDG&E developed an interim map of FTZ and HRFA zones in order to establish stricter standards for power lines within areas of elevated risk (SDG&E, 2017a).

SDG&E Fire Prevention Plan

SDG&E has prepared a Fire Prevention Plan in compliance with CPUC Decision 12-01-032 (Fire Safety Order), Standard 1.E of General Order 166, and Senate Bill 1028. The Fire Prevention Plan describes SDG&E's fire prevention and safety procedures and programs which include, but are not limited to: fire threat and risk area mapping, building resiliency (including a Wood-to-Steel program), operational practices to reduce the risk of fires, fire prevention outreach and

[3] A Red Flag Warning is issued by the National Weather Service to alert fire departments of the onset, or possible onset, of critical weather and dry conditions that could lead to rapid or dramatic increases in wildfire activity.

training programs, field practice guidelines, advanced vegetation management, Fire Potential Index, and fire-hardening practices (SDG&E, 2017a, 2018). The Fire Prevention Plan was updated in October 2018 to adopt the CPUC High Fire Threat District mapping (SDG&E, 2018). SDG&E's Fire Prevention Plan is designed to reduce wildfire risk for the SDG&E service area and has designed prevention and response strategies specific to the geography of the service area. SDG&E's operational practices consider environmental conditions such as vegetation type, vegetation moisture content, relative humidity, temperature, and wind conditions. Considering these variables, in the case of extreme operating conditions, SDG&E deploys monitors and personnel to provide immediate response to potential incidents.

Electrical Standard Practice 113.1

SDG&E has developed operating protocols and safety standards that minimize the risk of wildland fires during SDG&E operation and maintenance activities. SDG&E's Fire Prevention Plan references and incorporates Electric Standard Practice 113.1 (Revised), Operations and Maintenance Wildland Fire Prevention into its overall plan for operational wildland fire prevention (SDG&E, 2014). This document contains requirements and guidance for all SDG&E operation and maintenance activities and contains additional requirements for projects within Fire Threat Zones and High Risk Fire Areas. The purpose of Electric Standard Practice 113.1 is to formalize standard operating procedures that would improve SDG&E's ability to prevent the ignition of any fire. Electric Standard Practice 113.1 sets minimum requirements for emergency suppression equipment to be carried by crews working in a Fire Threat Zone; restricts the type of work that can be conducted during elevated temperatures and extreme or Red Flag Warning operating conditions; incorporates federal, State and local requirements into standard business practices; requires formal "tailboard" safety discussions in order to identify dedicated fire patrol and extinguishment plans; restricts smoking and idling of vehicles to designated areas; and requires the use of spark arrestors and additional safety precautions when using equipment. As an SDG&E standard practice included in the Applicant's PEA, Electric Standard Practice 113.1 is considered a component of the Project proposed by the Applicant in the PEA (SDG&E, 2017a).

Senate Bill 1028

Senate Bill 1028 (2016) requires each electrical corporation to construct, maintain, and operate its electrical lines and equipment in a manner that will minimize the risk of catastrophic wildfire posed by those electrical lines and equipment, and makes a violation of these provisions by an electrical corporation a crime under state law. The bill also requires each electrical corporation to annually prepare a wildfire mitigation plan and submit to CPUC for review. The plan must include a statement of objectives, a description of preventive strategies and programs that are focused on minimizing risk associated with electric facilities, and a description of the metrics that the electric corporation uses to evaluate the overall wildfire mitigation plan performance and assumptions that underlie the use of the metrics.

2018 Strategic Fire Plan for California

Developed by the Board of Forestry and Fire Protection (the Board), the Strategic Fire Plan outlines goals and objectives to implement CAL FIRE's overall policy direction and vision. The 2018 Plan demonstrates CAL FIRE's focus on: 1) fire prevention and suppression activities to

protect lives, property, and ecosystem services; and 2) natural resource management to maintain the State's forests as a resilient carbon sink to meet California's climate change goals and to serve as important habitat for adaptation and mitigation. Unit Plans are developed and updated in order to implement the programs and goals of the 2018 Plan. Through the Strategic Plan, CAL FIRE implements and enforces the policies and regulations set forth by the Board and carries forth the mandates of the Governor and the Legislature (CAL FIRE, 2018b)

The 2018 San Diego Unit Strategic Fire Plan is a local wildfire planning document. The San Diego Unit Fire Plan outlines strategies for how the San Diego Unit will implement and meet the goals in the overall Strategic Fire Plan. The San Diego Unit is divided into battalions, the Project is located in Battalion 7, the Valley Center Battalion. (CAL FIRE, 2018a).

California Emergency Response Plan

Pursuant to the Emergency Services Act (Gov't Code §8550 et seq.), California has developed an Emergency Plan to coordinate emergency services provided by federal, State, and local governmental agencies and private persons. Response to hazardous materials incidents is one part of this plan. The plan is administered by the State Office of Emergency Services (OES). The OES coordinates the responses of other agencies, including the United States Environmental Protection Agency (USEPA), California Highway Patrol (CHP), California Department of Fish and Wildlife (CDFW), the RWQCBs (in this case, the San Diego RWQCB), the local air districts (in this case, the San Diego Air Pollution Control District) and local agencies. The State Emergency Plan defines the "policies, concepts, and general protocols" for the proper implementation of the California Standardized Emergency Management System (SEMS). The SEMS is an emergency management protocol that agencies within the State of California must follow during multi-agency response efforts whenever state agencies are involved.

Fire Protection in California Fire Code and Public Resources Code

The California Fire Code is contained within Title 24, Chapter 9 of the California Code of Regulations. Based on the International Fire Code, the California Fire Code is created by the California Buildings Standards Commission and regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. Similar to the International Fire Code, the California Fire Code and the California Building Code (CBC) use a hazards classification system to determine the appropriate measures to incorporate to protect life and property.

The California Public Resources Code includes fire safety provisions that apply to State responsibility areas (SRAs) during the time of year designated as having hazardous fire conditions. During the fire hazard season, these regulations restrict the use of equipment that may produce a spark, flame, or fire; require the use of spark arrestors on equipment that has an internal combustion engine; specify requirements for the safe use of gasoline-powered tools in fire hazard areas; and specify fire-suppression equipment that must be provided on-site for various types of work in fire-prone areas. Additional codes require that any person who owns, controls, operates, or maintains any electrical transmission or distribution line must maintain a firebreak clearing around and adjacent to any pole, tower, and conductors that carry electric current as specified in Public Resources Code Sections 4292 and 4293. Section 4292 requires that a 10-foot clearance be

maintained around the base of poles be cleared of all flammable vegetation. The State's Fire Prevention Standards for Electric Utilities (14 Cal. Code Regs. §§1250-1258) provide specific exemptions from electric pole and tower firebreak and electric conductor clearance standards and specifies when and where standards apply.

3.20.3 Applicant Proposed Measures

No Applicant Proposed Measures (APMs) have been identified to address potential impacts related to wildfires.

3.20.4 Environmental Impacts

Discussion

a) Substantially impair an adopted emergency response plan or emergency evacuation plan: *LESS THAN SIGNIFICANT IMPACT.*

As described in detail in Section 3.9, *Hazards and Hazardous Materials,* under Question f, the Project would have a less-than-significant impact on emergency response and evacuation plans during construction and operation. As described in Section 3.20.1, under the heading "Emergency Response," the OES does not designate specific evacuation routes in the OA EOP. Major highways interstates and highways are identified as primary evacuation routes in this plan. The Project Specific evacuation routes would be developed by emergency responders in the event of an emergency. APM TRA-1 includes implementation of traffic control measures that would be used during construction to ensure safety and minimize congestion, and APM TRA-2 requires the Applicant to coordinate with local agencies in the event of an emergency, to allow access for emergency vehicles and equipment. With the incorporation of these APMs, the Applicant would coordinate with and respond to the needs of emergency responders during construction and would not interfere with evacuation routes in the event of an emergency.

As described in Section 3.20.1, the Elfin Forest Harmony Grove Community Plan identifies an existing inadequacy in the mapping and identification of roads used for emergency response and evacuation within the community. This community is located along Segment 3 which includes existing poles that would be re-energized as part of the Project. The Project would not result in significant construction activity along Segment 3 which would have the potential to impair emergency access. Additionally, the implementation of APM TRA-2 would ensure that the Applicant would coordinate with local agencies during construction in the event of an emergency to allow for sufficient emergency access. During Project operation, in accordance with Electric Standard Practice 113.1, described in Section 3.20.2, the Project would retain a Fire Coordinator who would serve as a conduit or liaison to emergency service agencies. Coordination with local emergency responders during construction and operation would ensure that the Project would not conflict with emergency response or evacuation in this community.

As described in Section 3.20.2, *Regulatory Setting,* the 2018 Strategic Fire Plan for California outlines overarching goals for CAL FIRE. The state strategic plan focuses on promoting interagency coordination, participating in the development of regional and local planning efforts,

sharing risk assessment data, integrating fuels management practices across jurisdictions, and providing the appropriate level of resources and preparedness to enable fire suppression activities and post-fire recovery at the unit level. A review of the goals and objectives outlined in the 2018 Strategic Fire Plan for California demonstrated that the objectives in the Plan focus on improving CAL FIRE's internal organization and coordination with other agencies and stakeholders. The goals and objectives within the Plan would not be applicable to the Project; therefore, the proposed Project would not conflict with or impair the implementation of the 2018 Strategic Fire Plan for California.

The 2018 San Diego Unit Strategic Fire Plan outlines a number of goals and objectives to implement the statewide strategic plan. The San Diego Unit plan and Battalion 7 objectives focus on coordination with relevant stakeholders, conducting and refining risk assessments, increasing communication and planning coordination with communities, and monitoring the effectiveness of projects and programs. A review of the goals and objectives outlines in the San Diego Unit Strategic Fire Plan demonstrated that the objectives in the Plan focus on improving San Diego Unit's collaboration with other agencies, participation in local planning processes, evaluating high risk areas in the County, and educating the public about overall fire risk. These goals and objectives would not be applicable to the Project.

The San Diego Unit Strategic Fire Plan and Battalion 7 plan identify the implementation of vegetation management treatments in high risk areas and priority areas in the wildland urban interface as an objective of the San Diego Unit and Battalion 7. The Project would be required by law to comply with Public Resources Code Sections 4292 and 4293 (described in Section 3.20.2, *Regulatory Setting*) which outlines the vegetation clearance required for electrical transmission lines. As a result of the Project's compliance with Public Resources Code, the Project would conduct the vegetation clearance and treatment required for transmission lines and would not conflict with San Diego Unit and Battalion 7's objective of conducting vegetation treatment in high risk areas. Therefore, the Project would not conflict with or impair the implementation of any of the goals or objectives listed in the San Diego Unit Strategic Fire Plan. The Project's impact on adopted emergency response plans would be less than significant.

Additionally, as described in SDG&E's Electric Standard Practice 113.1 'SDG&E Operations & Maintenance Wildland Fire Prevention Plan,' an SDG&E Fire Coordinator would be responsible for communicating and coordinating with local fire prevention and emergency response agencies throughout operation and maintenance activities (SDG&E, 2014). The Fire Coordinator would provide fire training to work crews and would coordinate fire prevention measures with local emergency response providers. This coordination would ensure that Project operation would not conflict with the implementation of the 2018 Strategic Fire Plan for California or the 2018 San Diego Unit Strategic Fire Plan.

Furthermore, although not necessary to reduce the impact on emergency response or evacuation, which is less than significant, Mitigation Measure WIL-1: Fire Safety (described below under Question b) would ensure that while developing a Construction Fire Prevention Plan, SDG&E would coordinate with and consult CAL FIRE and local fire protection agencies to determine what emergency fire equipment should be provided at the construction site. This early

coordination with emergency response agencies during both construction and operation would ensure that the Project's specific Fire Prevention Plans are coordinated with state and local emergency response efforts.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire: *LESS THAN SIGNIFICANT WITH MITIGATION INCOPORATED.*

The Project structures are not intended for and would not be used for occupation and therefore would not expose project occupants to increased risks associated with wildfire. However, Project segments do pass through existing communities. Therefore, the following analysis focuses on the potential for Project construction and operation to increase the exposure of these communities to wildfire risks.

Construction

As discussed in Section 3.20.1, *Environmental Setting,* parts of the Project, excluding the Escondido substation and staging yards along Segment 3, are within moderate to very high fire hazard severity zones. The staging yard at 12332 Vigilante Road in Lakeside is in a very high fire hazard severity zone. Additionally, segments of the Project have also been mapped within an SDG&E Fire Threat Zone. The primary fire hazards from Project construction would involve the use of vehicles and equipment. Heat or sparks from construction vehicles and equipment could ignite dry vegetation and cause a fire, particularly during the dry, hot conditions from June to September and from September to December when dry, Santa Ana winds are more likely to occur. Additionally, construction activities that could result in sparks, such as welding or grinding, have a greater likelihood of creating a source of ignition. Therefore, depending on the time of year (as seasonality may affect climate conditions, prevailing winds, and vegetation/fuels) and the location of construction activities, the increase in sources of potential ignition associated with Project construction could exacerbate the risk of wildfire in the area. As discussed in Section 3.20.1, wildfires release large amounts of air pollutants which can lead to harmful exposure for first responders, nearby communities, as well as populations that are located further away. Therefore, due to the increase in potential sources of ignition, Project construction could increase the risk of surrounding communities' exposure to pollutant concentrations from wildfire and the uncontrolled spread of wildfire, which would result in a potentially significant impact.

As part of the PEA, SDG&E prepared TL 6975 Construction Fire Prevention Plan, a project-specific fire prevention plan which describes broadly which types of fire safety and emergency preparedness measures may be required during Project construction (SDG&E, 2017a). To ensure that wildland fire impacts during construction are reduced to less than significant, implementation of **Mitigation Measure WIL-1** would be required. The implementation of a Final Project-specific Construction Fire Prevention Plan would reduce potential sources of ignition. The plan would require that when a Red Flag Warning is issued by the National Weather Service (an alert that high winds and dry conditions could lead to rapid or dramatic increases in wildfire activity) that SDG&E and its contractor cease all non-emergency work in order to respond to changes in fire risk. Additionally, the plan would prepare work crews with emergency suppression

equipment and plans in order to respond quickly to any onsite incidents caused by construction activities. The incorporation of a Final Project-specific Construction Fire Prevention Plan would reduce impacts from Project construction to a less-than-significant level.

Mitigation Measure WIL-1: Fire Safety. SDG&E and/or its contractors shall prepare and implement a Final Project-specific Construction Fire Prevention Plan (CFPP) to ensure the health and safety of construction workers and the public from fire-related hazards. The Final Project-Specific Construction Fire Prevention Plan shall include the provisions in the TL 6975 Construction Fire Prevention Plan provided in Appendix 4.8-B of the Proponent's Environmental Assessment (SDG&E, 2017b), as well as the requirements listed below. Prior to construction, SDG&E shall contact and consult with the San Diego Unit of CAL FIRE, the San Diego County Fire Authority, and the fire departments of the cities of Carlsbad, Escondido, San Marcos, and Vista to determine the appropriate amounts of fire equipment to be carried on the vehicles and appropriate prevention measures to be taken. SDG&E shall submit verification of its consultation with the appropriate fire departments to the CPUC Project Manager. SDG&E shall submit the CFPP to the CPUC Project Manager for approval 60 days prior to commencement of construction activities and shall make the approved Final CFPP available to all construction crew members prior to construction of the Project. The Final CFPP shall list fire safety measures including fire prevention and extinguishment procedures, as well as specific emergency response and evacuation measures that would be followed during emergency situations; examples are listed below. The Final CFPP also shall provide fire-related rules for smoking, storage and parking areas, usage of spark arrestors on construction equipment, and fire-suppression tools and equipment. The Final CFPP shall include or require, but not be limited to, the following:

- SDG&E and/or its contractors shall have water tanks, water trucks, or portable water backpacks (where space or access for a water truck or water tank is limited) sited/available in the study area for fire protection.
- All construction vehicles shall have fire suppression equipment.
- SDG&E shall ensure that all construction workers receive training on the proper use of fire-fighting equipment and procedures to be followed in the event of a fire.
- As construction may occur simultaneously at several locations, each construction site shall be equipped with fire extinguishers and fire-fighting equipment sufficient to extinguish small fires.
- SDG&E shall instruct construction personnel to park vehicles within roads, road shoulders, graveled areas, and/or cleared areas (i.e., away from dry vegetation) wherever such surfaces are present at the construction site.
- SDG&E and its contractor shall cease work during Red Flag Warning events in areas where vegetation would be susceptible to accidental ignition by Project activities (such as welding or use of equipment that could create a spark).
- At each construction site, after construction has been completed for the day, the project contractor and/or the SDG&E Contract Administrator will perform visual inspections to ensure that all ignition risks are minimized or eliminated before leaving the work site.

- Successful implementation of Mitigation Measure WIL-1: Fire Safety would be demonstrated by the development of a Final CFPP in consultation with local fire authorities which is documented and submitted to the CPUC for final approval. Additionally, successful implementation of Mitigation Measure WIL-1 would require that SDG&E and its contractor comply with all components of the Final CFPP, that ignition from project construction activities is promptly reported to the fire department(s) with jurisdiction, and that when it is safe to do so, any project-caused ignition is suppressed immediately.

Significance after Mitigation: Implementation of Mitigation Measure WIL-1 would ensure that the risk of fire from Project construction is managed through collaboration with area fire protection agencies and that SDG&E and its contractors implement fire safety measures to prevent fire and are prepared to respond immediately if a fire should ignite. This impact would be reduced to a less-than-significant level.

Operations

The Project would include a rebuild of approximately 1.8 miles of an existing line, improvements to the existing San Marcos substation, the construction of a new 69kV power line parallel to an existing 138kV power line, and the reconductoring of 7.4 miles of an existing power line. Therefore, the majority of the Project would involve work on existing power lines and would not involve building or establishing power lines in previously undisturbed wildland areas. The 1.8 mile rebuild along Segment 1 would involve the replacement of wooden poles, which are associated with fire risk, with steel poles as part of SDG&E's "Wood to Steel Program" (SDG&E, 2017a, 2018). Steel poles are designed to withstand higher wind speeds than wooden poles. Therefore, this component of the Project would significantly reduce existing ignition risk along Segment 1. The Segment 2 New Build would involve constructing a new power line; however, this line would be constructed within an existing ROW where an existing power line is located. Therefore, once operational, the Project would not introduce a substantial new source of wildfire risk associated with operation and maintenance activities. Although there would be sufficient separation (30 feet) between the existing 138 kV Tie Line 13811/13825 and the Segment 2 New Build to prevent the two lines from crossing and creating an arc, due to the addition of the Segment 2 line, operation of the Project could result in a minor increase in the risk of wildland fires in the area.

Electrical lines can start a fire if an object such as a tree limb, kite, or mylar balloon simultaneously contacts the power line conductors and a second object, such as the ground or a portion of the supporting pole. System component failures and accidents during maintenance activities can also cause line faults that result in arcing on power lines. Power lines are also subject to conductor-to-conductor contact, which can occur when extremely high winds force two conductors on a single pole to oscillate so excessively that they contact one another. This contact can result in arcing (sparks) that could ignite nearby vegetation. As described above, the addition of the Segment 2 New Build and the ongoing operation of Segments 1 and 3 have the potential to result in a minor increase in the risk of ignition from the power lines.

SDG&E's Fire Prevention Plan is described in Section 3.20.2. The overall inspection, maintenance, risk management, emergency suppression, and response programs outlined in the Fire Prevention

Plan would apply to the Project and would be incorporated into operation and maintenance protocols as required by CPUC General Orders 95, 165, and 166, CPUC Decision 12-01-032, and California Public Utilities Code Section 702.

As described in Section 3.20.2, Electric Standard Practice 113.1 outlines specific fire prevention measures to be taken when performing maintenance activities in elevated risk conditions. Adherence to Electric Standard Practice 113.1 would ensure that operation and maintenance crews minimize ignition risk and are prepared for emergency suppression in the event of an incident.

Additionally, in accordance with applicable firebreak clearance requirements (Pub. Res. Code §4292; 14 Cal. Code Regs. §1254), SDG&E would trim or remove flammable vegetation in the area surrounding power line poles to reduce potential fire and other safety hazards. SDG&E typically inspects poles on an annual basis to determine if brushing is required. Also, in accordance with tree and power line clearance requirements (Pub. Res. Code §4293; 14 Cal. Code Regs. §1256; CPUC GO 95), SDG&E would regularly inspect and trim trees and vegetation to manage fire and safety hazards and ensure electrical reliability. SDG&E typically inspects trees in its service area for trimming needs annually.

The Project would consist primarily of reenergizing and rebuilding existing power lines. A portion of the Project would involve constructing a new power line parallel to an existing power line. Therefore, once operational, the Project would not significantly increase exposure to wildfire risk for surrounding communities. However, given the new build of Segment 2 and the inherent potential for ignition risk associated with power lines, SDG&E's Operation and Maintenance Fire Prevention Plan and Standard Practices would be incorporated into the Project's daily operation, as required by CPUC GO 166. These practices would ensure that potential sources of ignition are minimized during maintenance activities and would deploy precautionary measures during extreme operating conditions. The implementation of these measures would reduce the risk of exposing surrounding communities to exacerbated risk of the uncontrolled spread of a wildfire and associated impacts to a less-than-significant level.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment: *LESS THAN SIGNIFICANT IMPACT.*

As described in Section 2.5.3, *Pre-Construction Preparation*, a new permanent access road and four new permanent spur roads would be established as part of the Project. Additionally, Section 2.5.3 describes vegetation clearances that would be required during construction and operation. These access roads and vegetation clearances would aid in reducing wildfire risk and facilitating emergency suppression of fires should they occur. These components are considered a part of the Project and the environmental impacts that would result from the inclusion of these components are analyzed throughout this document on a resource-by-resource basis.

As discussed under Question b and Mitigation Measure WIL-1, Project construction and maintenance activities would require that construction crews and maintenance crews (depending

on operating conditions) have emergency water sources onsite in order to respond to fires. Electric Standard Practice 113.1 recommends that a minimum of 150 gallons be available onsite for maintenance activities, with a maximum of 1,500 gallons (SDG&E, 2014). Therefore, crews can be expected to require at least 150 gallons of water per crew during construction and maintenance activities. In comparison to the amount of water that would be required for the Project (3,079,000 gallons), this amount of water represents a negligible amount and would not have an impact on water supply. Therefore, the Project would not require the installation or maintenance of infrastructure that has not been considered in this document. As a result, impacts would be less than significant.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes: *LESS THAN SIGNIFICANT WITH MITIGATION INCOPORATED.*

As identified in Section 3.9, *Hydrology and Water Quality*, under Question c, during construction, the implementation of a SWPPP and BMPs related to erosion control would reduce potential impacts related to drainage patterns during construction to a less-than-significant level. Additionally, Question c explains that, following construction, drainage patterns onsite would be relatively similar to existing conditions. Therefore, the Project would not result in changes to runoff or drainage patterns which could exacerbate downslope or downstream flooding and thereby expose people or structures to associated risks.

As discussed under Question b, Project construction has the potential to increase wildfire risk as a result of increased sources of ignition. Unmitigated, this could result in a significant increased risk of post-fire flooding and landslides. However, the incorporation of **Mitigation Measure WIL-1: Fire Safety**, would require the implementation of a Construction Fire Prevention Plan that would require SDG&E and its contractors to consult with CAL FIRE and emergency response providers, use fire prevention measures such as requiring the use of spark arrestors and the restriction of work during Red Flag Warnings. Additionally, **Mitigation Measure WIL-1** would require that construction vehicles are prepared with emergency fire suppression equipment and plans which would equip construction crews to conduct emergency suppression in the event of an incident. The incorporation of this Construction Fire Prevention Plan would reduce the risk of wildfire to less than significant. As a result, the incorporation of this plan would reduce the potential for post-fire flooding or landslides to a less-than-significant level.

> **Mitigation Measure WIL-1: Fire Safety.** See full text for this Mitigation Measure under Question b, above.
>
> **Significance after Mitigation:** With implementation of Mitigation Measure WIL-1, the risk of flooding, mudslides, and slope instability associated with post-fire conditions would be addressed with a detailed Construction Fire Prevention Plan. Therefore, this impact would be less than significant.

As discussed in Question b, above, the incorporation of SDG&E's Fire Prevention Plan, Electric Standard Practice 113.1, and compliance with other vegetation clearance and maintenance requirements during operation would ensure that the Project would not substantially increase the risk of wildfire. Because the Project would have a low potential to exacerbate wildfire risk, it also

would not pose a substantial risk of causing post-fire slope instability in the study area. Therefore, the potential for Project operation to exacerbate the risk of flooding and mudslides as a result of post-fire slope instability would be less than significant.

Finally, the Project does not include any housing or structures, and therefore would not expose people or structures to increased risk associated with flooding, landslides, or post-fire slope instability as a result of locating them near such existing risks.

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3.21 Mandatory Findings of Significance

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
21. MANDATORY FINDINGS OF SIGNIFICANCE —				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

3.21.1 Mandatory Findings of Significance Discussion

Would the Project:

a) Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory: *LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.*

With the mitigation identified in this Draft IS/MND, the Project would not have the potential to substantially degrade the quality of the environment. As analyzed in Section 3.3, *Air Quality*, the Project would not conflict with or obstruct the implementation of the applicable air quality plan, and would result in less than significant impacts related to potential violation of air quality standards or cumulatively considerable net increases in existing or projected air quality, the exposure of sensitive receptors to substantial pollutant concentrations, and the generation of other emissions (such as objectionable odors) adversely affecting a substantial number of people.

As analyzed in Section 3.10, *Hydrology and Water Quality*, the Project would not alter existing drainage patterns in a manner that would impede or redirect flood flows. The Project would cause less-than-significant impacts related to depletion of groundwater supplies and interference with groundwater recharge, alteration of existing drainage patterns, increase of impervious surface, and risk of release of pollutants due to project inundation; and would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

With the implementation of Mitigation Measure HAZ-1, which would ensure that soil and water are monitored and that soil and/or water with chemical concentration that exceed regulatory standards would be properly tested, contained, and disposed of in a safe and legal manner, impacts related to the violation of water quality standards or waste discharge requirements would be reduced to a less-than-significant level.

As analyzed in Section 3.4, *Biological Resources*, the Project would not conflict with local policies or ordinances protecting biological resources and would result in a less-than-significant impacts on species identified as a candidate, sensitive, or special-status, and on riparian habitat or other sensitive natural community. It also would cause a less-than-significant impact related to interference with the movement of native resident or migratory fish or wildlife species and with established native resident or migratory wildlife corridors, it would not impede the use of native wildlife nursery sites, or conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved habitat conservation plan. Mitigation Measure BIO-1, which requires Project compliance with the Federal and California Endangered Species Acts, would assure that adequate mitigation is achieved in the event that SDG&E's Natural Communities Conservation Plan (NCCP) does not have available mitigation credits. With the implementation of Mitigation Measure BIO-2, which requires the establishment of a three-dimensional cylindrical construction buffer around nests, impacts on protected and nesting avian species resulting from ground-based construction and helicopter activities would be reduced to a less-than-significant level. Implementation of Mitigation Measure BIO-3, which requires the avoidance of jurisdictional resources, would reduce the Project's impacts on federally protected wetlands to less than significant.

Further, as analyzed in Section 3.5, *Cultural Resources*, the Project would not eliminate important examples of the major periods of California history or prehistory. With the implementation of Mitigation Measures CUL-1 through CUL-7, the Project would have a less-than-significant impact on archaeological deposits that do or could qualify as historical resources pursuant to CEQA Guidelines Section 15064.5.

Finally, as analyzed in Section 3.7, *Geology, Soils, Seismicity, and Paleontological Resources*, with the implementation of Mitigation Measures PALEO-1 through PALEO-4, the Project would have a less-than-significant impact related to the destruction of a unique paleontological resource or site or unique geologic feature.

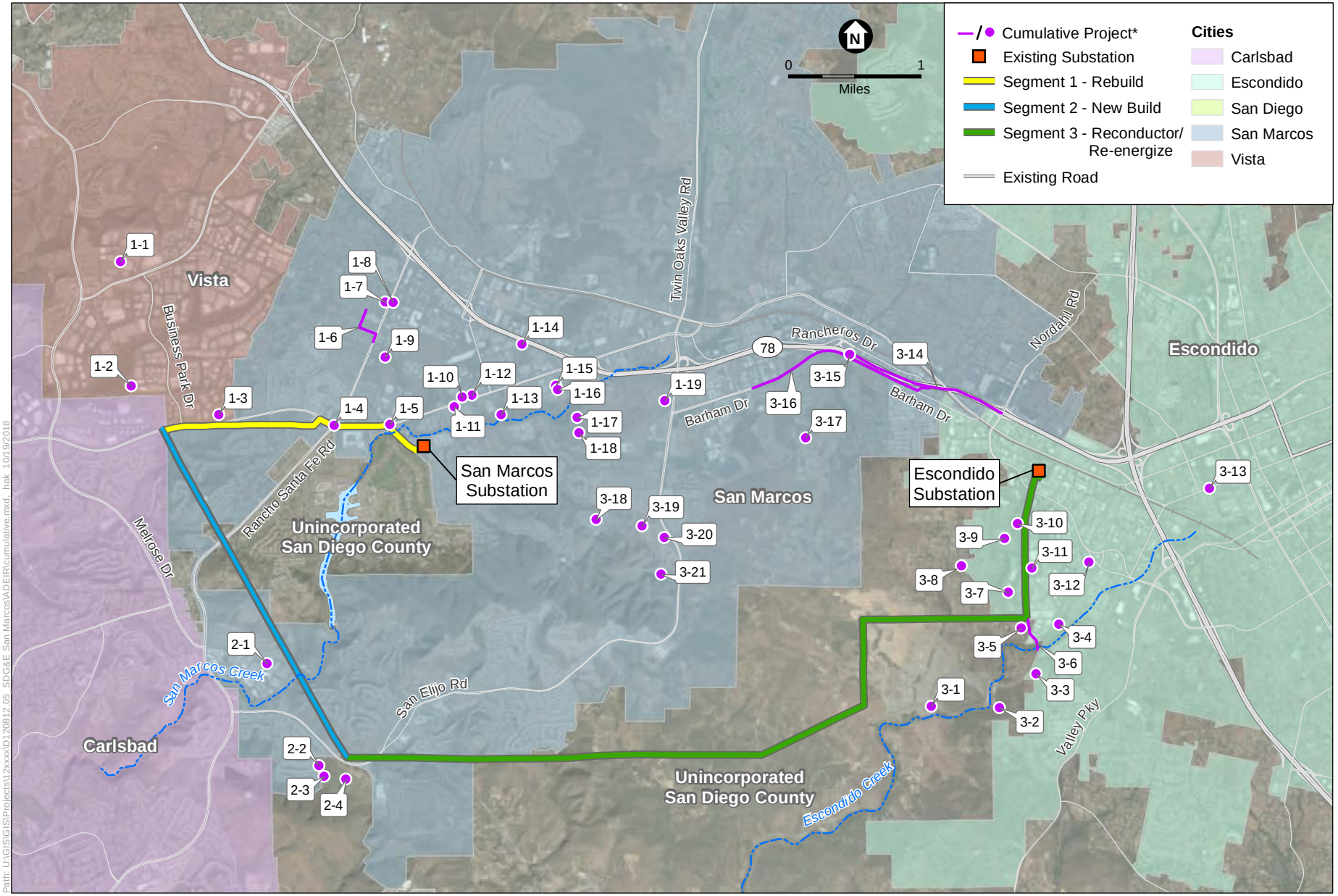
b) Have impacts that are individually limited, but cumulatively considerable: *LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED.*

CEQA Guidelines Section 15130 requires a discussion of the cumulative impacts of a project when the project's incremental contribution to a significant cumulative effect is "cumulatively considerable." This means that the project's incremental effects are considerable when viewed in connection with the effects of past, current, and probable future projects. An incremental, project-specific contribution to a cumulative impact is less than cumulatively considerable and is not significant if, for example, the project is required to implement or fund its fair share of a mitigation measure(s) designed to alleviate the cumulative impact.

Consistent with CEQA Guidelines Section 15130(b), the CPUC has prepared a list of past, present, and reasonably foreseeable future projects that could result in related or cumulative impacts. This list includes projects outside the control of CPUC (the Lead Agency). The analysis of cumulative impacts also considers projections contained in planning documents designed to evaluate regional or area-wide conditions. Specifically, this "projections approach" is used at least in part in the cumulative analyses for Air Quality, Energy, Greenhouse Gas Emissions, Noise, and Recreation. Existing conditions within the cumulative impacts area of effect reflect a combination of the natural condition and the effects of past actions in the affected area. The following factors also were used to determine an appropriate list of projects to be considered in this cumulative analysis:

- **Similar Environmental Impacts** – The analysis considers "reasonably foreseeable" projects that would contribute to effects on resources also affected by the Project. These include, for example, other electric transmission, or public utility-related projects.
- **Geographic Scope** – The appropriate geographic area of cumulative analysis is identified on a resource-by-resource basis as dictated by relevant physical and/or environmental boundaries (such as the extent of the groundwater basin or the roadways traveled by Project vehicles).
- **Timing and Temporal Scope** – Incremental impacts of the Project could combine with the incremental impacts of other projects to cause or contribute to cumulative effects if the Project's construction, operation, and maintenance periods coincide in terms of timing with the effects of the other projects.

San Diego County, San Diego Gas and Electric (SDG&E), and the cities of San Marcos, Vista, Carlsbad, and Escondido were contacted for information on projects within their respective jurisdictions (refer to Section 3.21.2, *References*); information about non-CPUC projects was also derived from city and county websites. The projects considered to be part of the potential cumulative scenario are presented in **Table 3.21-1**, which also describes the approximate geographic location of each project (see also **Figure 3.21-1**). Most of these projects are located in San Marcos and Escondido. The projects in the potential cumulative scenario include a range of project types. They primarily consist of infrastructure and capital improvement projects, as well as private site development projects. These projects are considered reasonably likely to be constructed and/or operated in a similar timeframe as the proposed Project and are projects that could contribute incremental impacts that are similar to those of the proposed Project. It should be noted that a number of the residential, commercial/office, and industrial projects identified as cumulative projects are market-driven. The status and construction dates for these projects are not determined. Therefore, for the purposes of this cumulative analysis, the CPUC assumes these projects would occur concurrently with this Project.



* For detailed list of cumulative projects see Table 3.21-1

SOURCE: SDGE, 2018; ESA, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.21-1
Cumulative Projects

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TABLE 3.21-1
CUMULATIVE SCENARIO

ID	Project Name	Project Location	Approximate Distance from Project	Jurisdiction	Project Description	Status/ Construction Start Date	Status/ Construction End Date
Segment 1							
1-1	Chandler's Sand and Gravel	Pipeline Drive and Engineer Street	1.3 miles from Segments 1 and 2	City of Vista	4.5 acre materials recovery facility for sand, gravel, and asphalt.	Application submitted July, 2018	Withdrawn
1-2	Keystone Victory Industrial Park	Western terminus of Keystone way	0.35 mile from Segments 1 and 2	City of Vista	Two industrial buildings on 10.3 acres.	Under construction	Summer 2019
1-3	Vista Palomar	2100 West San Marcos Boulevard	Along Segment 1	City of Vista	198 condos, 100-room hotel on 17.2 acres east of Business Park Drive	Under construction	Spring 2019
1-4	San Marcos High School Traffic Improvements	East of intersection of San Marcos Boulevard and South Rancho Santa Fe Road.	Adjacent to Segment 1	City of San Marcos	Pedestrian safety improvements at the intersection at San Marcos Boulevard and South Rancho Santa Fe Road.	2015	2016
1-5	San Marcos Boulevard at Discovery Street Intersection Improvements	Intersection of San Marcos Boulevard and Discovery Street	Adjacent to proposed poles Segment 1	City of San Marcos	Eliminate free right turn at Discovery Street, replace existing traffic signal, and reconfigure intersection	Funded through 2018	Pending
1-6	Starstone/La Rosa Road Drainage Improvements	Starstone Drive to La Rosa Drive and Rancho Santa Fe Road to Linda Vista Drive.	0.75 mile from Segment 1	City of San Marcos	Construct 48-inch concrete storm drain system from Starstone to La Rosa and Rancho Santa Fe Road to Linda Vista Drive intersection.	2015	2016
1-7	Shane Park Plaza	200 Rancho Santa Fe Road	0.9 mile from Segment 1	City of San Marcos	Mixed-use project, 19 apartments and approximately 6,000 square feet retail space.	Unknown	2016
1-8	Pacifica San Marcos	South Rancho Santa Fe Road and Creek Street, between Pawnee Street and South Rancho Santa Fe Road	1 mile north of San Marcos Substation	City of San Marcos	Three-story, mixed-use development with approximately 5,000 square feet commercial/retail space on the ground floor and approximately 31 residential units on the upper floors.	Approved	Summer 2019
1-9	Bradley Park Channel Improvements	Bradley Park, 1587 Linda Vista Drive	0.36 mile from Segment 1	City of San Marcos	Channel rehabilitation and drainage improvements, water quality protection and erosion control between the upper and lower mesas of the park.	2016	2017
1-10	The McDonald Group	1100 West San Marcos Boulevard	0.50 mile from Segment 1	City of San Marcos	85 units with up to approximately 5,000 square feet of commercial ground level.	Approved	Tentative 2019
1-11	Main Square (San Marcos Creek Specific Plan)	San Marcos Creek District, 1167 West San Marcos Boulevard	0.4 mile from Segment 1	City of San Marcos	Proposed mixed-use development with 42,305 square feet of commercial space, 519 apartments, 22 live/work units, and 820 surface and underground parking space on 4.5 acres.	2015	Under review

TABLE 3.21-1 (CONTINUED)
CUMULATIVE SCENARIO

ID	Project Name	Project Location	Approximate Distance from Project	Jurisdiction	Project Description	Status/ Construction Start Date	Status/ Construction End Date
Segment 1 (cont.)							
1-12	Venturepoint Development	1020 West San Marcos Boulevard	0.5 mile from Segment 1	City of San Marcos	Modify/reconfigure the parking lot, driveway locations and onsite improvements. Offsite improvements to West San Marcos Boulevard.	2011	Under review
1-13	San Marcos Creek Specific Plan, Bent Avenue Bridge and Street Improvements	Between intersections of Discovery Street with Via Vera Cruz and South Bent Avenue.	0.65 mile from Segment 1	City of San Marcos	New 4-lane bridge spanning San Marcos Creek on Via Vera Cruz, a 2-lane bridge on Bent Avenue, widening of Discovery Street to 4-lane secondary arterial standards between the bridges, a portion of the Creekside Promenade Park and habitat and flood protection improvements. Also, relocate the historic "Pink House."	2016	2017
1-14	Channel Widening South of Grand Avenue	South of Grand Avenue and west of Linda Vista Drive	1 mile from Segment 1	City of San Marcos	Widening of the existing drainage channel south of Grand Avenue, west of Linda Vista Drive, creation of riparian habitat and grading of city lots. Construction of a precast bridge over the widened channel for future access to Linda Vista Drive and Grand Avenue.	2015	2016
1-15	East Gate	16 Creekside Drive, northwest corner of Grand Avenue and Creekside Drive.	1.15 miles from Segment 1	City of San Marcos	42-unit affordable housing complex with 11,600 square feet of commercial space on a 2.85-acre lot.	2015	Under review
1-16	The Promenade @ Creekside	2 Creekside Drive, south side of Creekside Drive between Bent Avenue and Grand Avenue	1.3 miles from Segment 1	City of San Marcos	Phase 1 complete. Phase 2 will be the construction of a two-story and three-story 43 affordable housing units and more than 11,000 square feet of retail/commercial space in two phases.	2015	Phase 2 to begin 2018
1-17	H.G. Fenton North (Discovery Village North)	Discovery Street	1.15 miles from Segment 1	City of San Marcos	Within the University District Specific Plan, on the north side of the future Discovery Street, proposing a Tentative Subdivision Map to allow mixed use development consistent with the approved specific plan (residential and office uses).	2016	Approved 2018
1-18	H.G. Fenton South (Discovery Village South)	Future Discovery Street	1 mile from Segment 1	City of San Marcos	Development of 250 single-family residential homes on approximately 38 acres.	2016	Approved 2018
1-19	North City (University District Specific Plan)	200 East Barham Drive, connecting SR-78 on both sides of Twin Oaks Valley Road to San Marcos Boulevard at Discovery Street.	2.25 miles west of San Marcos Substation	City of San Marcos	2,600 mixed use residential units, 800 student housing units, hotel use (up to 450 rooms), 652,000 square feet of general office, 300,000 square feet of medical office, 700,000 square feet of mixed use retail/commercial, and 30,000 square feet of civic/community use.	Under construction	Summer 2019

TABLE 3.21-1 (CONTINUED)
CUMULATIVE SCENARIO

ID	Project Name	Project Location	Approximate Distance from Project	Jurisdiction	Project Description	Status/ Construction Start Date	Status/ Construction End Date
Segment 2							
2-1	Hunter Industries, Inc.	Opal Street	0.15 mile from Segment 2	City of San Marcos	67,657 square foot, 2-story light industrial/office building	Under Review	TBD
2-2	San Elijo Hills	1084 San Elijo Road	0.25-0.50 mile from Segments 2 and 3	City of San Marcos	Maximum of 3,466 total homes in community, 150 left to be built. San Elijo Hills Town Center consists of 23,000 square feet of retail space and 12 residential townhomes, currently under construction. Final Phase consists of 2 commercial buildings with a combined 11,972 square feet and 12 residential townhomes.	2016	2018
2-3	Questhaven-SAB, LLC	San Elijo Road near former landfill	0.25 mile from Segments 2 and 3	San Diego County	351 condominium units, commercial buildings, and 14 vacant lots.	Proposal submitted 2012	Unknown
2-4	Copper Hills Specific Plan	San Elijo Road	0.25 mile from Segments 2 and 3	City of San Marcos	189 residential apartments, 120 attached condominiums, 42 detached condominiums, and 138,710 square feet of commercial/light industrial buildings on 49 acres; 20 acres of biological open space.	Under Review	TBD
Segment 3							
3-1	Harmony Grove Village South Project	Intersection of Harmony Grove Road and Country Club Drive	0.56 mile from Segment 3	San Diego County	Expand the contiguous Harmony Grove Village (HGV) to include a residential component providing a mix of residential and community center/limited commercial uses.	Approved	Under construction
3-2	Wismer TM, Johnston Road	Western end of Avenida Del Diablo	0.5 mile from Segment 3	City of Escondido	Annexation and single-family residential subdivision	Approved 2018	TBD
3-3	HARRF Collections Facility	Intersection of Avenida Del Diablo and Citracado Parkway	0.45 mile from Segment 3	City of Escondido	Three maintenance buildings, 14,875 square feet	Approved 2018	TBD
3-4	Innovative Industrial	Intersection of Harmony Grove Road and Howard Avenue, adjacent to Escondido Creek	0.35 mile from Segment 3	City of Escondido	210,000 square foot industrial.	Under construction	TBD
3-5	Harmony Grove Specific Plan	Empty lot where Kauana Loa Drive becomes Harmony Grove Road	Adjacent to Segment 3 and staging areas	City of Escondido	Industrial subdivision.	Anticipated	TBD
3-6	Citracado Parkway Extension	Citracado Parkway from Harmony Grove Village Parkway to Andreasen Drive.	Adjacent to Segment 3 and staging areas	City of Escondido	This project extends Citracado Parkway south from Harmony Grove Village Parkway to Andreasen Drive.	2017	2022

TABLE 3.21-1 (CONTINUED)
CUMULATIVE SCENARIO

ID	Project Name	Project Location	Approximate Distance from Project	Jurisdiction	Project Description	Status/ Construction Start Date	Status/ Construction End Date
Segment 3 (cont.)							
3-7	ERTC Kidney Dialysis Center	1955 Citracado Parkway	Adjacent to Segment 3 and staging areas	City of Escondido	12,000 square feet medical office and dialysis center.	Review completed	TBD
3-8	Valiano Project	Located in unincorporated San Diego County within the San Dieguito Community Planning Area near Escondido.	0.9 mile from Segment 3	San Diego County	Residential development of 326 homes on 239 acres. Includes 36.5 acres of agriculture easement and 28.2 acres of biological open space.	Planning Commission 2018	TBD
3-9	Office Condos (Jungman Specific Plan)	West side of Citracado Parkway, across Harveson Place	Approximately 800 feet from Segment 3	City of Escondido	Mixed use: 20,000 square feet of office space, 36 condominiums	Anticipated	TBD
3-10	ERTC Medical Office (EAST)	East side of Citracado Parkway, adjacent to Harveson Place	Approximately 100 feet from Segment 3	City of Escondido	74,000-square-foot medical office, part of the Escondido Research and Technology Center.	Approved 2015	In Progress
3-11	Stone Brewery Hotel	Directly across the street from 1999 Citracado Parkway	Approximately 200 feet from Segment 3	City of Escondido	99-room boutique hotel	Held at applicants request	TBD
3-12	Ford/Hyundai Dealership	Intersection of South Auto Parkway and Howard Avenue	0.55 mile from Segment 3	City of Escondido	Two showrooms and a wash/detail building.	Under construction	TBD
3-13	Public Works Yard Relocation	West Washington Street and North Spruce Street	1.3 miles **from** Segment 3	City of Escondido	Future relocation of the Public Works Yard. Project components include site selection, acquisition, environmental documentation, and design for the future site. Current yard site as a high priority area targeted for redevelopment.	October 2013	Dependent on funding (budget through 2020)
3-14	SR-78 Eastbound Auxiliary Lane Improvement	SR-78 between Woodland Parkway and Nordahl Road, and East Mission Road.	0.45 mile from Segment 3 and 1.0 mile from Staging Area	City of San Marcos	Construct an eastbound auxiliary lane on SR-78 between Woodland Parkway and Nordahl Road including the widening of the Mission Road undercrossing and an additional merging lane between Barham Drive on-ramp and the Nordahl Road on-ramp.	2015	2018
3-15	Woodland Parkway SR-78 interchange	Woodland Parkway, Barham Drive, Rancheros Drive, SR 78 Interchange.	1.65 miles east of Escondido Substation, 3.35 miles west of San Marcos Substation and Segment 1	City of San Marcos	Reconstruction of SR-78 overcrossing, reconfigure on/off ramps, widen and realign adjacent portions of Woodland Parkway, Barham Drive and Rancheros Drive.	2016	2018

TABLE 3.21-1 (CONTINUED)
CUMULATIVE SCENARIO

ID	Project Name	Project Location	Approximate Distance from Project	Jurisdiction	Project Description	Status/ Construction Start Date	Status/ Construction End Date
Segment 3 (cont.)							
3-16	Barham Drive Widening and Street Improvements	West La Moree to eastbound SR-78 Barham Drive off-ramp.	2.1 miles from Segment 3	City of San Marcos	Widening to 6-lane prime arterial from West La Moree to eastbound SR-78 Barham Drive off-ramp.	2015	2018
3-17	Sandy Lane Estates	La Moree Road and Shady Lane	1.7 miles from Segment 3 and Escondido Substation	City of San Marcos	8 single-family residences, subdivision of 8.19-acre parcel	Under review	TBD
3-18	Rancho Coronado Park	West of South Twin Oaks Valley Road and north of San Elijo Road.	1.45 miles from Segment 3	City of San Marcos	Create multi-use park at former Hanson quarry site.	2018	2019
3-19	Brookfield Residential Properties (Rancho Tesoro)	South Twin Oaks Valley Road South of Craven Road	2.75 miles west of Escondido Substation	City of San Marcos	346 single-family homes.	Approved	Under construction
3-20	Brookfield Residential Multi-Family	Twin Oaks Valley Road	2.75 miles west of Escondido Substation	City of San Marcos	Construction of 220 residential condominium units on 23.22 acres.	Approved 2017	TBD
3-21	South Lake Community Park	South Lake off of South Twin Oaks Valley Road	2.0 miles from Segment 1 and 3.0 miles from Segment 3	City of San Marcos	Construct park entry road, parking spaces, restroom, new trail on city property to connect to existing trail surrounding the lake and install self-contained restroom and other amenities at lake grounds.	2015	2018

SOURCES: City of Carlsbad, 2018a, 2018b; Conley, 2018; del Solar, 2018; City of Escondido, 2018a, 2018b; Farace, 2018; San Diego County, 2018; City of San Marcos, 2018a, 2018b; SDG&E, 2017; Tasher, 2018; City of Vista, 2018.

Aesthetics

As explained in Section 3.1, *Aesthetics*, the Project would have no impact pertaining to substantial damage to scenic resources. Therefore, the Project would not cause or contribute to any cumulative impact related to such resources. (No Impact)

Section 3.1, *Aesthetics*, defines the study area for the aesthetics analysis as encompassing the landscapes directly affected by the Project and the surrounding areas from which the Project would be visible. Within this area, construction, operation, and maintenance of the Project would cause a less-than-significant impact on scenic vistas, the existing visual character or quality of public views of the site and its surroundings, and applicable zoning and other regulations governing scenic quality, and from creating a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area.

The ongoing environmental effects of past projects are reflected in the baseline environmental conditions described in Section 3.1.1, *Environmental Setting*. For example, although there are no officially-designated scenic vistas in the study area, scenic views are available from informal recreation areas in Rancho La Costa Preserve, Diamond Trail Preserve, and Escondido Creek Preserve. The area's visual character is depicted in Figures 3.1-2 through 3.1-10, which present nine photographs showing existing representative visual conditions and views from publicly-accessible points within the Project area. Regarding light and glare, the summary of existing conditions notes that much of the Project area is developed and urbanized lands where nighttime lighting (e.g., from vehicle headlights, street lighting, parking lot lighting, security lighting, and building illumination) is part of the built environment. By contrast, light conditions in the open space areas, preserves, and undeveloped lands crossed by the Project are typically darker with the primary light source being associated with nearby streets and vehicles.

In each Project segment, there are existing utility transmission structures. While the changes attributable to the Project would be visually apparent (i.e., new, taller steel poles), the character of the new structures would not substantially affect the existing visual character or quality in the Project area. No permanent lighting is included in the Project. Of the potentially cumulative projects shown on Figure 3.21-1 and summarized in Table 3.21-1, some would cause impacts that could combine with those of the Project to cause or contribute to cumulative impacts within the Project area. For example, project 2-1, a two-story light industrial building on Opal Street in San Marcos, would be within the same viewshed as the Project and could affect the scenic views available from publicly-accessible areas and informal trails in the vicinity of Key Observation Point E (KOP E) along Segment 2. All of the projects involving structures (e.g., residential, office, light industrial) could generate new sources of light or glare. Although nighttime construction may occur, it would be on an as-needed basis and with approval of variances conditionally permitting nighttime work from the affected jurisdiction. The cumulative impacts of these projects, together with the incremental impacts of the Project, would not be significant, because there would not be a substantial change in the visual quality or character of the study area. Therefore, the Project's impacts would not combine with the impacts of other projects to cause or contribute to a significant cumulative effect. (Less than Significant Impact)

Agriculture and Forestry Resources

As explained in Section 3.2, *Agriculture and Forestry Resources*, the Project would have no impact pertaining to the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, 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 rezoning of, forest land, timberland, or timberland zoned Timberland Production; loss of forest land or conversion of forest land to non-forest use; or other changes in the existing environment that, 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. Therefore, the Project would not cause or contribute to any cumulative impact related to Agriculture and Forestry Resources. (No Impact)

Air Quality

As explained in Section 3.3, *Air Quality*, the Project would not conflict with or obstruct implementation of the applicable air quality plan. Therefore, the Project would not cause or contribute to any cumulative impact in this respect. (No Impact)

Section 3.3 defines the regional study area for the air quality analysis as the San Diego Air Basin, the boundaries of which are contiguous with the political boundaries of San Diego County. For impacts related to exposing sensitive receptors to substantial pollutant concentrations and emissions of dust, odors, and other potential nuisance emissions, the local study area consists of areas surrounding Project work sites. Within these regional and local study areas, the Project would result in less-than-significant impacts related to potential violation of an air quality standard or cumulatively considerable net increases in existing or projected air quality; the exposure of sensitive receptors to substantial pollutant concentrations; and other emissions adversely affecting a substantial number of people. The Project would contribute to cumulative conditions from the point when construction emissions commence and lasting through the operation and maintenance activities.

The ongoing environmental effects of past projects are reflected in the baseline environmental conditions described in Section 3.3.1, *Environmental Setting*. As explained in that section, criteria pollutants of concern in the study area include ozone, respirable particulate matter (PM_{10}) and fine particulate matter ($PM_{2.5}$), carbon monoxide (CO), and sulfur dioxide (SO_2). The Air Basin is classified as a non-attainment area for the State 1-hour and 8-hour ozone standards, as well as the federal 8-hour ozone standard. The Air Basin is also a non-attainment area relative to the State $PM_{2.5}$ and PM_{10} standards. For all other criteria pollutants, San Diego County is classified as either unclassified or as attainment with respect to State and federal standards (SDAPCD, 2018). See Table 3.3-2 for the current attainment status of the study area.[1] Other emissions that could adversely affect a substantial number of people include dust: Valley Fever is an infection caused

[1] "Attainment" and "non-attainment status is assigned to geographic areas, such as air basins, based on the area's ability to meet the National or State Ambient Air Quality Standards for certain criterion pollutant, such as carbon monoxide, ozone, etc. This is explained in detail in Section 3.2.2, *Air Quality, Regulatory Setting.*

by the inhalation of *Coccidioides immitis* and *Coccidioides posadasii* spores that have become airborne when dry, dusty soil or dirt is disturbed (e.g., by construction activities).

The San Diego Air Pollution Control District's approach to thresholds of significance is relevant to whether a project's individual emissions would result in a cumulatively considerable adverse contribution to the Air Basin's existing air quality conditions. If a project's emissions would be less than these levels, then the project would not result in a cumulatively considerable contribution to the significant cumulative impact. Here, the Project's incremental contribution to nonattainment conditions would not be cumulatively considerable because the Project's emissions would not exceed the District's established thresholds. (Less than Significant Impact)

Biological Resources

The geographic scope for the analysis of cumulative impacts associated with biological resources is the biological study area (BSA) used for the analysis presented in Section 3.4, *Biological Resources*. Within this 500-foot buffer from the limits of Project activity, construction, operation, and maintenance of the Project would cause potentially significant impacts on several special-status plant and wildlife species, sensitive natural communities, and federally protected wetlands/waters, primarily over the course of Project construction. However, there would also be direct permanent impacts attributable to the presence of Project structures.

The Project would not conflict with any local policies or ordinances protecting biological resources and would not conflict with the provisions of a conservation plan. Therefore, the Project could not cause or contribute to potential cumulative impacts associated with these considerations. Further, the Project would be constructed within existing SDG&E right-of-way (ROW), which may function as a wildlife corridor. No other cumulative Project would be constructed within this area. Therefore, there is no potential for a cumulative impact to occur with respect to movement of wildlife or use of habitat as a wildlife nursery site. (No Impact)

With respect to federally- and State-protected wetlands (i.e., jurisdictional areas), although construction of the Project would not cause direct impacts, indirect impacts could occur. Such impacts could combine with impacts from other Projects to cause cumulative impacts. Project-specific compliance with water quality limits and other relevant thresholds that have been set by the U.S. Army Corps of Engineers, the California Department of Fish and Wildlife, and San Diego Regional Water Quality Control Board (RWQCB), as well as APMs BIO-1 through BIO-5, NCCP Operational Protocols, and Mitigation Measures BIO-1 and BIO-3, would ensure a less-than-significant impact attributable to the Project. The implementation of these mitigative actions, which include avoidance, restoration/enhancement, and use of mitigation credits, would ensure that the Project would result in a net-zero effect on jurisdictional areas. Therefore, the Project would not result in a cumulatively considerable contribution to a significant cumulative impact on these jurisdictional areas. (No Impact)

Additionally, operation and maintenance activities for the Project would be substantially the same as, and in the same locations as, current operation and maintenance activities for the existing infrastructure. Throughout the operation and maintenance of the Project, SDG&E would continue to implement the NCCP Operational Protocols, as described in Section 3.4.2, *Regulatory Setting*.

For work near jurisdictional areas, SDG&E would implement the appropriate NCCP Operational Protocols, which would require obtaining resource permits and complying with those conditions. With implementation of these NCCP Operational Protocols, incremental Project-specific impacts on sensitive natural communities from operation and maintenance activities would be negligible and, therefore, not considerable when take with other cumulative projects identified in this analysis. (No Impact)

The ongoing environmental effects of past projects or natural events are reflected in the baseline environmental conditions described in Section 3.4.1, *Environmental Setting*. For instance, in the southwestern portion of the Project area, areas of sensitive habitat, such as coastal sage scrub and southern maritime chaparral, were burned during the 2014 Poinsettia Fire. At the same time, the new town center development of San Elijo Hills (project 2-2) was in its planning stages, with construction starting in 2016. Other current projects in the vicinity which could have cumulatively considerable effects on biological resources include Harmony Grove Village (project 3-5), Harmony Grove Village South (project 3-1), and Valiano (project 3-8). These projects are large, master-planned residential and mixed-use development located in previously undeveloped areas. These large-scale projects could affect biological resources also directly and indirectly affected by the Project. In addition to the sensitive habitats previously mentioned, these resources include special-status plant species (Nuttall's scrub oak, wart-stemmed ceanothus), special-status mammal and reptile species, and special-status and nesting bird species.

The Project would traverse both urban and undeveloped areas and open space that provide habitat for special-status plants and birds, nesting birds, and other wildlife species. Construction of the Project could impact this habitat. There is also the potential for similar impacts from ongoing and future development projects identified in Table 3.21-1 and Figure 3.21-1. These include projects 2-2, 2-3, 2-4, 3-1, 3-5, 3-8, 3-18, 3-19, and 3-20. These projects would be located in similar areas and, in combination with impacts from the Project, could cause a cumulatively significant impact on species-status plants, nesting birds and special-status avian species, as well as special-status reptile and mammal species.

As mitigated, the installation of new utility poles and structures, extension of access roads, and use of temporary stringing and staging sites would cause a less-than-significant impact with regard to the loss of undeveloped habitat in the Project area. This loss of native habitat primarily would occur in Segments 2 and 3, and could combine with impacts on habitat from other cumulative projects to cause a significant cumulative impact.

With respect to special-status plants, including those in federally- and State-protected wetlands, impacts would be avoided or minimized with the implementation of APMs BIO-1 through BIO-5 and Mitigation Measures BIO-1 and BIO-3, which includes implementation of NCCP Operational Protocols and habitat reclamation procedures approved by USFWS and CDFW. As noted in the discussion of Permitting Agreements in Section 3.4.2, *Regulatory Setting*, in approving the SDG&E Subregional NCCP, these agencies determined that its implementation would avoid potential impacts and provide appropriate mitigation for impacts that could not be avoided. The analysis addressing Question a indicates that the Project would impact less than 1 percent of any area occupied by a special-status plant species within the Project's biological study area (BSA).

When considered in the larger area encompassing the cumulative projects identified in Table 3.21-1 and Figure 3.21-1, this would constitute a smaller percentage when compared to the whole. In this context, the Project's incremental less-than-significant impact would not cause or have a cumulatively considerable contribution to any significant cumulative effect relating to special-status plant species. (Less than Significant Impact)

The analysis presented in Section 3.4, *Biological Resources*, indicates that five special-status mammal species and six special-status reptile species have a moderate or high potential for occurrence in the Project area. With the implementation of APMs BIO-1 through BIO-5, BIO-8, and BIO-9, NCCP Operational Protocols, and Mitigation Measure BIO-1, impacts of the Project on these reptiles and mammals would be less than significant. As noted in the preceding paragraph, in approving the NCCP, USFWS, and CDFW determined that it provides appropriate avoidance and minimization measures. The combined temporary and permanent impact of 2.2 acres of habitat within the BSA and larger area encompassed in this cumulative analysis constitutes less than 1 percent. In this context, the Project's incremental less-than-significant impact would not cause or have a cumulatively considerable contribution to any significant cumulative effect relating to special-status reptile and mammal species. (Less than Significant Impact)

Regarding nesting birds and special-status avian species, although the Project would result in the removal of some areas of vegetation along the Project alignment and have the potential to disrupt mating, nesting, and foraging activities during nesting seasons, disturbance in the majority of these areas would be temporary and areas would be restored post-construction (see Section 2.5.12, *Waste Management, Cleanup, and Post-Construction Restoration*). With the implementation of APMs BIO-1 through BIO-6, BIO-8, and BIO-9, NCCP Operational Protocols and habitat reclamation procedures, and Mitigation Measures BIO-1 and BIO-2, impacts from the Project on these nesting birds and sensitive avian species would be less than significant. As noted in the preceding paragraphs, in approving the NCCP, USFWS and CDFW determined that it provides appropriate avoidance and minimization measures. In this context, the Project's incremental less-than-significant impact would not cause or have a cumulatively considerable contribution to any significant cumulative effect relating to nesting birds and special-status avian species. (Less than Significant Impact)

Like this Project, the cumulative projects considered in this analysis are required to comply with federal and State regulations protecting special-status plant and animal species through implementation of mitigation measures during construction and/or participation in the local habitat conservation plans currently in force. The approval and implementation of these projects consistent with the San Diego County Multiple Habitat Conservation Program and the Draft North County Multiple Species Conservation Program in the areas where these plans govern would avoid a significant cumulative impact on special-status plants and animals to which the Project could contribute. (Less than Significant Impact)

Cultural Resources

The geographic scope for cumulative impacts on historical and archeological resources includes a 1-mile radius from the Project footprint. While the study area for the Project-specific analysis was limited to the Project footprint and a corridor extending 150 feet on either side of the centerline of

the Project alignment, as described in Section 3.5, *Cultural Resources*, this geographic scope of analysis is appropriate for cumulative impacts because the cultural resources within this radius are expected to be similar to those in the study area because their proximity, similar environments, landforms, and hydrology would result in similar land-use types and thus, site types.

The Project vicinity contains a significant archaeological and historical record that, in many cases, has not been well documented or recorded. Thus, there is the potential for ongoing and future development projects in the vicinity, such as those identified in Table 3.21-1 and Figure 3.21-1, to disturb landscapes that may contain known or unknown cultural resources. Environmental analysis is either underway or completed for many of these projects. Some of the potentially cumulative projects would result in ground disturbance and development within the geographic scope of this analysis, including projects 1-3, 1-4, and 1-5.

The Project-specific analysis determined that the Project could adversely affect 18 historic or archaeological sites by causing a substantial adverse change in their significance. Additionally, Project-related ground-disturbing activities would result in a potentially significant impact relating to inadvertent impacts on unknown resources that may qualify as historical and archaeological resources. Although these impacts would be limited to areas within the study area, when combined with the potential impacts of other projects proposed within the cumulative geographic scope, cumulative impacts on historic and/or unique archaeological resources could be cumulatively significant if multiple projects were to adversely affect the significance of similar types of resources. Implementation of Mitigation Measures CUL-1 through CUL-8 would ensure that excavation would cease if a cultural or historical resource (including human remains) is uncovered during Project construction or operation-related ground disturbance. Because mitigation is designed to avoid a change in the significance of historic or unique archaeological resources, the residual Project impact after mitigation would not result in a cumulatively considerable contribution to potential cumulative impacts. (Less than Significant Impact)

Energy

As explained in Section 3.6, *Energy*, the Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Therefore, the Project would not cause or contribute to any cumulative impact related to this consideration. (No Impact)

As explained in Section 3.6, the Project would cause a less-than-significant impact related to the consumption of transportation fuel during construction because it would not result in inefficient, wasteful, or unnecessary energy use compared with the energy use for other construction projects in the region.

The ongoing environmental effects of past projects are reflected in the baseline environmental conditions described in Section 3.6, *Energy*. As noted there, the State Board of Equalization reports that approximately 15.5 billion gallons of gasoline, including aviation gasoline, and 3.1 billion gallons of diesel, including off-road diesel, were sold in California in 2017 (BOE 2018a, 2018b). In San Diego County, an estimated 1.37 billion gallons of gasoline and 102 million gallons of diesel were sold in 2016 (CEC, 2018).

Conservatively assuming that all of the cumulative projects that could generate a demand for transportation fuel (whether for construction, operation, maintenance, or decommissioning, and whether for cars, trucks, or helicopters) would require fuel at the same time as the construction of the Project, there is no evidence that the resulting fuel consumption would be wasteful, inefficient, and unnecessary. As explained in Section 3.6.1, *Environmental Setting*, most petroleum supply disruptions or shortage events are resolved by the energy industry before they become significant (NASEO, 2018); further, price spikes rather than fuel outages would likely be the market correction. No significant cumulative effect related to wasteful, inefficient, and unnecessary consumption of energy would result. (Less than Significant Impact)

Geology, Soils, Seismicity, and Paleontological Resources

As explained in Section 3.7, *Geology, Soils, Seismicity, and Paleontological Resources*, the Project would have no impact related to the use of septic tanks or alternative wastewater disposal systems. Therefore, the Project would not cause or contribute to any cumulative impact related to the consideration of whether site soils are capable of supporting such systems. (No Impact)

Section 3.7 defines the study area for geology, soils, and seismicity as the Project footprint and vicinity, including all areas of temporary and/or permanent ground disturbance. Impacts on geology and soils are generally localized and do not result in regionally cumulative impacts. Geologic conditions can vary significantly over short distances creating entirely different effects elsewhere. Unless a project would alter the soils and rock underlying other adjacent projects or affect surrounding land due to landslides, impacts related to geologic, soils, and seismic hazards would be limited to the Project site. The geographic scope of cumulative impacts related to geologic, soils, or seismic hazards therefore includes the Project sites and alignments and any projects immediately adjacent to them.

The ongoing environmental effects of past projects generally are reflected in the baseline environmental conditions described in Section 3.7.1, *Environmental Setting*. With regard to seismic hazards, the entire Southern California region, including the study area, could be subject to very strong ground shaking, and the Project sites and alignments could experience liquefaction and related effects in the event of an earthquake on a nearby fault. With regard to soil stability hazards, excavation and grading could destabilize soils at the Project sites and alignments. However, as discussed in Section 3.7 and required by the California Building Code (CBC) and Mitigation Measure GEO-1, all applicable Project components (i.e., pole/tower foundations, retaining walls, substations, etc.) would be designed and constructed in accordance with the recommendations presented in the Project's supplemental geotechnical report and most current engineering standards for seismic safety and soil stability, which would reduce the potential for damage. In addition, the cumulative projects within the study area would be required to be designed and built according to the CBC. For these reasons, the Project along with the cumulative projects identified within or immediately adjacent to the Project alignment (i.e., projects 1-3, 1-4, 1-5, 3-5, 3-10, and 3-11) would not cause a significant cumulative impact to which the Project could have a cumulatively considerable incremental contribution. (Less than Significant Impact)

Regarding soil erosion or the loss of topsoil, any ground-disturbing activities, including construction of the cumulative projects identified in Table 3.21-1 and Figure 3.21-1, could

increase the risk of erosion or sediment transport. The effectiveness of the regulatory regime governing soil erosion within the study area is demonstrated by the fact that none of the waterways in the study area is sediment-impaired. See Section 3.7.2, *Regulatory Setting*, for a summary of Construction General Permit requirements, and Table 3.9-2, *303(d) List of Impaired Water Bodies in the Project Vicinity*. In this context, the Project's incremental less-than-significant contribution would not cause or contribute to any significant cumulative effect relating to soil erosion or the loss of topsoil. (Less than Significant Impact)

As analyzed in Section 3.7.4, *Environmental Impacts and Mitigation Measures*, there is potential for the Project, unless mitigated, to create substantial direct or indirect risks to life or property along the portion of Segment 1 that would be located on soils that exhibit medium expansion potential or due to the anchoring of steel poles in a concrete-pier foundation that would be exposed to soils that are moderately corrosive to concrete. For these risks to be cumulatively significant, past, other present, or future projects would have to be in the same "fall zone"[2] as Project infrastructure. No other structures are located or are proposed to be located in the right-of-way that could contribute incrementally to the incremental risk to life or property. Therefore, with the implementation of Mitigation Measure GEO-1, the Project's less-than-significant impact related to location on expansive or corrosive soil would not cause or contribute to any significant cumulative impact in this regard. (Less than Significant Impact)

For paleontological resources, the study area includes all areas within 1 mile of the immediate Project alignment, and in particular, the Santiago Formation. For paleontological resources, the geographic scope for the cumulative impact analysis includes all areas underlain by the Santiago Formation, which occurs in the northwestern portion of the Project alignment and has a high potential for paleontological resources, because projects disturbing ground within this formation have the potential to destroy the same types of resources that may be destroyed by Project ground disturbance.

As analyzed in Section 3.7.4, *Environmental Impacts and Mitigation Measures*, the Project may have the potential to destroy a unique paleontological resource or site while working in the Santiago Formation, which is considered to have a high potential for containing significant paleontological resources, or in young alluvial floodplain deposits, which have low paleontological potential at the surface that increases to high potential in the subsurface. The Santiago Formation underlies Segment 1 and a portion of Segment 2. Young Holocene alluvium overlies Santiago Formation where Segment 1 begins on Discovery Street, and so maintains a high potential for paleontological resources at depth. See Figure 3.7-1 in Section 3.7, *Geology, Soils, Seismicity, and Paleontological Resources.* To cause incremental impacts that could combine with those of the Project to cause or contribute to significant cumulative effects, past, present, or reasonably foreseeable future projects would need to disturb the surface at necessary depths in either or both of these locations. Of the potential cumulative projects identified in Table 3.21-1 and on Figure 3.21-1, those along West San Marcos Boulevard west of Discovery Street and along Rancho Santa Fe Road north of West San Marcos Boulevard (i.e., projects 1-2 through 1-9) overlay these areas. Grading and excavation activities for these projects, in

[2] A "fall zone" is that area surrounding a structure within which debris from that structure would be deposited during a seismic event.

combination with Project-related surface disturbance, could contribute to the progressive loss of fossil remains, as-yet unrecorded fossil sites, associated geologic site data, and the fossil-bearing strata. Compliance with the regulations for the protection and recovery of paleontological resources in combination with the implementation of Mitigation Measures PALEO-1 through PALEO-4 that would be implemented for the Project would reduce potentially significant Project-specific impacts to a less-than-significant level. Because the Project, with mitigation, would produce scientific and cultural benefits by increasing access to paleontological artifacts and related scientific knowledge, its residual effects would not result in a cumulatively considerable contribution to a significant cumulative impact related to the loss of unique paleontological resources. (Less than Significant Impact)

Greenhouse Gas Emissions

As noted in Section 3.8, *Greenhouse Gas Emissions*, the California Air Pollution Control Officers Association (CAPCOA) considers greenhouse gas (GHG) impacts to be exclusively cumulative impacts (CAPCOA, 2008); therefore, assessment of significance is based on a determination of whether the GHG emissions from a project represent a cumulatively considerable contribution to the global atmosphere. Although the geographic scope of cumulative impacts related to GHG emissions is global, this analysis focuses on impacts associated with potential conflicts with California's reduction goals set forth in Executive Order S-3-05, Executive Order B-30-15, Assembly Bill (AB) 32 and the Project's direct and/or indirect generation of GHG emissions. The Project would result in less-than-significant emissions of GHGs and would not conflict with the state's GHG reduction goals. Therefore, the Project-specific incremental impact associated with GHG emissions would not contribute to a significant cumulative impact, and the incremental impact would not be cumulatively considerable. (Less than Significant Impact)

Hazards and Hazardous Materials

As noted in Section 3.9, *Hazards and Hazardous Materials*, depending on the pathway of migration, the geographic scope for cumulative effects relating to hazards and hazardous materials would be the air basin, watershed boundary, groundwater basin, or extent of affected soils. Materials delivery routes also would be included in the event of a traffic accident-related spill or use of evacuation routes. Cumulative hazards and hazardous materials-related effects could arise at any point during Project construction or operation and maintenance-related activities. Other projects (including those identified in Table 3.21-1 and on Figure 3.21-1) could create hazardous materials-related effects that would be similar to those of the Project.

As noted in Questions a and b of Section 3.9.4, *Environmental Impacts*, with mitigation incorporated, the Project would result in less than significant impacts regarding the transport, use, disposal of hazardous materials; upset and accident conditions involving the release of hazardous materials; and sites included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Current and reasonably foreseeable projects would be required to comply with measures that would minimize and/or avoid such impacts. In addition, per APM HAZ-1 and Mitigation Measure HAZ-1, the Project's risk of impacts related to the use of hazardous materials or to existing recorded sites would not exacerbate those of cumulative projects. Accordingly, the Project's incremental impact would not cause or contribute to any

significant cumulative impact regarding the transport, use, disposal of hazardous materials; upset and accident conditions involving the release of hazardous materials; or sites currently identified pursuant to Government Code Section 65962.5. (Less than Significant Impact)

The Project would result in a less-than-significant impact regarding hazardous emissions, wastes, or materials within 0.25 mile of six existing schools, as noted in Question c of Section 3.9.4. San Marcos High School, High Tech High North County, and Valley Christian School would be in the immediate vicinity of two cumulative projects (projects 1-5 and 1-4) and the Project. Project 1-4 (San Marcos High School Traffic Improvements) was completed in 2016 and has been considered within the Project baseline. Project 1-5 (San Marcos Boulevard at Discovery Street Intersection Improvements) is schedule for 2018. Depending on the timing of construction, hazardous emissions from these cumulative projects and the Project could combine and pose a significant cumulative health risk to people at these schools. However, the impact associated with the Project would be reduced to less than significant with implementation of APM HAZ-1 and Mitigation Measure HAZ-1; therefore, the Project would not be cumulatively considerable. (Less than Significant Impact)

As described in Section 3.9.4, under Question e, the Project would result in a less-than-significant impact regarding the potential for safety hazards related to public-use airports (i.e., the McClellan-Palomar Airport). There are no known cumulative projects that would require the use of helicopters in the area of the Project or that would occur simultaneously. When considered together with timing of other actions in the area of the Project, there is no significant cumulative condition relative to airport hazards to which the Project could contribute. Therefore, the Project's impact would not be cumulatively considerable. (Less than Significant Impact)

As described in Section 3.9.4, under Question f, the Project would result in a less-than-significant impact regarding interference with adopted emergency response or evacuation plans. Much of the Project construction in Segment 1 would occur along West San Marcos Boulevard, which would require lane closures during periods of active Project construction and potentially affect emergency response and evacuation plans. APMs TRA-1 and TRA-2 would require the preparation of traffic control plans in coordination with local ordinances, as well as coordination with local emergency service providers to provide safe access and passage to emergency vehicles and equipment. Other cumulative projects along West San Marcos Boulevard include the improvement of its intersection with Discovery Street which was scheduled for 2018 (project 1-5), as well as two development projects (projects 1-10 and 1-11) totaling approximately 625 residential units of various types and approximately 48,000 square feet of commercial space. The development projects are currently in the planning stages with no construction date determined. When considered together with timing of other actions in the area of the Project, there is no significant cumulative condition relative to emergency response/evacuation plans to which the Project could contribute. Therefore, the Project's impact would not be cumulatively considerable. (Less than Significant Impact)

Hydrology and Water Quality

As analyzed in Section 3.10, *Hydrology and Water Quality*, the Project would have no impact relating to substantial alteration of existing drainage patterns in a manner which would impede or redirect flood flows. There are no sustainable groundwater management plans in place for the

San Marcos Valley and Escondido Valley groundwater basins. Therefore, the Project would not cause or contribute to any cumulative impact related to these considerations. (No Impact)

The geographic scope of cumulative impacts related to hydrology and water quality encompasses the watersheds, flood hazard areas, and groundwater basins affected by the Project. The Project and cumulative projects are located in the Carlsbad Watershed and the San Marcos Valley and Escondido Valley groundwater basins. The consideration of these impacts includes all past, present, and reasonably foreseeable cumulative projects listed in Table 3.21-1 and Figure 3.21-1. The ongoing environmental effects of past projects are reflected in the baseline environmental conditions described in Section 3.10.1, *Environmental Setting*.

The Project would cause less-than-significant impacts regarding substantial depletion of groundwater supplies or substantial interference with groundwater recharge; substantial alteration of existing drainage patterns in a manner which would result in substantial erosion or siltation, substantially increase surface runoff resulting in flooding, or create runoff that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; risk of release of pollutants due to project inundation; or conflict with or obstruction of implementation of a water quality control plan or sustainable groundwater management plan. With the implementation of Mitigation Measure HAZ-1, which would ensure that soil and water are monitored and that soil and/or water with chemical concentration that exceed regulatory standards would be properly tested, contained, and disposed of in a safe and legal manner, impacts related to the violation of water quality standards or waste discharge requirements would be reduced to a less-than-significant level.

The Project would not substantially alter drainage patterns in the study area. As discussed in Section 3.10.4, *Environmental Impacts*, Question c.i, Project construction would comply with SDG&E's BMP Manual for Water Quality Construction and the NPDES Construction Stormwater General Permit to limit soil erosion and siltation. Compliance with the post-construction drainage control standards set forth in the Construction Stormwater General Permit would require the construction sites be restored to pre-project hydrologic conditions. The Project would add less than 2.5 acres of new impervious surface spread out over more than 60 sites along the 12-mile Project alignment. Operation and maintenance of the Project facilities would not require further changes to surface grades that could significantly alter existing drainage patterns. Considering the small size and fragmented distribution of new impervious surfaces, along with the required erosion and siltation controls and return to pre-project conditions, the Project would not cause or contribute to any cumulative impact related to alteration of drainage patterns.

The Project-specific analysis of groundwater found that the Project would not significantly impact area groundwater basins. During construction and maintenance, water would be provided by the Vallecitos Water District, which obtains its water primarily from surface water sources. While pole foundation excavations could result in dewatering, the San Marcos Valley groundwater basin is a ranked as a very low priority by the State for sustainable groundwater management. Construction sites would be restored to pre-construction conditions, as required by the Construction General Permit. When considered with the production rate of the groundwater unit, as well as the small size and fragmented distribution of new impervious surfaces, the Project

would not impede the sustainable groundwater management of the San Marcos Valley groundwater basin and would not cause or contribute to any cumulative impact related to these considerations. (No Impact)

Project construction would include surficial soil disturbance of up to 9.6 acres. As discussed in Section 3.10.4, *Environmental Impacts*, Question a, Project construction would comply with SDG&E's BMP Manual for Water Quality Construction and Mitigation Measure HAZ-1, coupled with required coverage under the NPDES Construction Stormwater General Permit and RWQCB Resolution R9-2014-0041, *Conditional Waivers of Waste Discharge Requirements for Low Threat Discharges in the San Diego Region*. Although this would be a Project-specific less-than-significant impact on surface water quality, it could be cumulatively considerable when taken with other present projects under a similar construction schedule and/or future projects in the Project vicinity. The present and future cumulative projects included in this analysis are also assumed to involve soil disturbance and addition of impervious surfaces potentially affecting surface water quality through the potential for soil erosion and increased stormwater runoff in the Carlsbad Watershed. These projects could further compromise water quality by causing the untreated release of contaminated groundwater during construction. Like this Project, these cumulative projects would also be required to comply with federal, State, and local regulations and mitigative actions protecting water quality. With the implementation of similar protective measures by the cumulative projects, together with the Project's less-than-significant impact, it is not considered likely that there would be a significant adverse cumulative condition with water quality to which the Project would contribute. Therefore, as mitigated, the incremental contributions of Project-related impacts would not be cumulatively considerable. (Less than Significant Impact)

Land Use and Land Use Planning

As analyzed in Section 3.11, *Land Use and Land Use Planning*, the Project would have no impact pertaining to the physical division of an established community or to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, the Project would not cause or contribute to any cumulative impact related to Land Use and Land Use Planning. (No Impact)

Mineral Resources

As analyzed in Section 3.12, *Mineral Resources*, there are no locally important mineral resource recovery sites delineated on any local land use plans. The Project, therefore, would have no impact on and thus no contribution to a cumulative impact on the availability of such sites.

The study area for Mineral Resources is defined as the footprint of all components of the Project, including all areas of temporary and/or permanent ground disturbance. Mineral resource areas near Project disturbance include the MRZ-2 categorized land (where significant mineral deposits are or are likely to be present) adjacent to an approximately 0.5-mile stretch of SDG&E right-of-way in Segment 2, which already is unavailable for mineral resource extraction. While the Project would be constructed in areas mapped as having known mineral resources, the availability of these resources would not substantially change as a result of the Project; therefore, the impact would be less than significant. Because none of the cumulative projects would disturb land within

SDG&E's ROW (i.e., in the same locations where Project disturbance would occur), none would cause or contribute to cumulative impacts within the Project site. Further, because the Project would not cause or contribute to the loss of availability of a known mineral resource that would be of value to the region and the residents of the State, the Project would not cause or contribute to any significant cumulative impact. (Less than Significant Impact)

Noise

As analyzed in Section 3.13, *Noise*, the Project would have no impact pertaining to the exposure of people residing or working in the Project area to excessive noise levels associated with an airport or airstrip. Therefore, the Project would not cause or contribute to any cumulative impact related to these considerations. Additionally, operation and maintenance of the Project would not introduce any new sources of noise or groundborne vibration to the study area. The Project's slight increase in maintenance activities and related miles traveled would be offset by the decrease in maintenance activities resulting from the proposed pole replacement and reconductoring/re-energizing of the existing de-energized line, which would result in a net decrease in heavy truck use and mileage. Therefore, the Project would not cause or contribute to any significant cumulative impact once construction concludes. (No Impact)

As defined in Section 3.13, *Noise*, the Project-specific study area is defined as the area surrounding the Project where Project construction and operational noise may be heard. The geographic scope for the evaluation of cumulative changes in the noise and vibration environment attributable to the Project would be localized in urban areas of the cities of Carlsbad, San Marcos, Vista, and Escondido, as well as unincorporated areas of San Diego County. Within this area, Project construction, with the implementation of mitigation measures identified in Section 3.13.4, *Environmental Impacts*, would cause less-than-significant impacts related to substantial temporary increases in ambient noise levels in excess of standards and the generation of excessive groundborne vibration or groundborne noise levels during construction.

The ongoing environmental effects of past projects generally are reflected in the baseline environmental conditions. A significant cumulative impact could result if, for example, the incremental impacts of the Project and at least one other of the cumulative projects caused vibration at a combined level of 80 VdB, which could result in human annoyance, and/or cause vibration level of 0.2 PPV (inch/second), which could result residential buildings exposed to damage according to the Federal Transit Administration's *Transit Noise and Vibration Impact Assessment* (FTA, 2006). Most of the noise and vibration-producing Project activities (e.g., foundation excavation, pole replacements, etc.) would occur along Segments 1 and 2 within one construction season. As noted in the analysis, noise and vibration waves naturally attenuate with distance (see Tables 3.13-12 to 3.13-15). Also, many of the projects listed in Table 3.21-1 and shown in Figure 3.21-1 are either past projects, would not occur during the same construction period, or are currently without an estimated construction date. When considered with the proximity to, and schedules for, the cumulative projects – as well as the ambient background conditions, the Project's incremental less-than-significant contribution would not cause or contribute to any significant cumulative effect relating to noise or vibration. (Less than Significant Impact)

Population and Housing

As analyzed in Section 3.14, *Population and Housing*, the Project would have no impact pertaining to the displacement of substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere, or related to the direct inducement of substantial unplanned population growth. Therefore, the Project would not cause or contribute to any cumulative impact related to these considerations. (No Impact)

As analyzed in Section 3.14.4, *Environmental Impacts*, the Project could, however, cause a less-than-significant impact by indirectly inducing substantial unplanned long-term population growth via the extension of electrical infrastructure, or short-term growth by requiring an in-migration of construction workers. Section 3.14 defines the study area for Population and Housing as including the communities within which the Project would be constructed and operated. The geographic scope of analysis for cumulative impacts includes these same communities.

The ongoing environmental effects of past projects are reflected in the baseline environmental conditions described in Section 3.14.1, *Environmental Setting*. Projections for planned growth are also summarized in that section. As noted in Table 3.14-1, the Project area municipalities are expected to undergo substantial growth through 2050. The amount of population growth from 2012 to 2050 in the immediate area of the Project is expected to range from approximately 16 percent in Carlsbad to approximately 32 percent in the City of Vista. (SANDAG, 2013).

The projects listed in Table 3.21-1 and shown on Figure 3.21-1 include numerous residential developments and commercial developments which would serve them. These projects, as well as other future development, would be subject to the applicable city and/or county planning process, as well as environmental review on a project-by-project basis. It is reasonable to assume that these projects in combination with this Project would result in a significant cumulative impact regarding population growth. However, this Project's contribution to the cumulative impact would not be considerable as it would not include new homes or businesses; demand for temporary construction worker housing would be accommodated by existing units; and the availability of electrical capacity provided by the Project would not encourage growth. (Less than Significant Impact)

Public Services

As analyzed in Section 3.15, *Public Services*, the Project would have no impact associated with the provision of or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools, parks, or other public facilities. Therefore, the Project would not cause or contribute to any cumulative impact related to these considerations. (No Impact)

As analyzed in Section 3.15, the Project could result in a less-than-significant impact associated with the provision of or need for new or physically altered governmental facilities for fire and/or police protection. The Project-specific study area and geographic scope for the analysis of cumulative impacts related to police and fire protection facilities includes the service territories of the police and fire emergency service providers that serve the cities of Carlsbad, Escondido, Vista,

and San Marcos, as well as unincorporated San Diego (i.e., Lake San Marcos). See Section 3.15.1, *Environmental Setting*, which describes the service providers and their service areas.

The ongoing environmental effects of construction needed to provide acceptable service ratios, response times, or other performance objectives to meet the demands of past projects are reflected in the baseline environmental conditions described in Section 3.15.1. Any development that would occur in the cumulative scenario could incrementally increase the demand on police services. However, there is no evidence that these incremental increases in demand collectively would result in substantial adverse physical impacts associated with the provision of or need for new or physically altered governmental facilities. There is no existing significant adverse condition relating to response capabilities that necessitates new or modified facilities, and the development and operation of projects in the cumulative scenario, together with construction and operation of the Project, would not cause or contribute to a significant cumulative effect in this regard. Even if a significant cumulative effect were to occur to police services, the Project's incremental contribution would not be cumulatively considerable because the proposed improvements within the existing San Marcos and Escondido substation sites, pole replacement and removal, and other activities would not substantially increase existing demands on emergency services. (Less than Significant Impact)

As with police services, any development that would occur in the cumulative scenario could incrementally increase the demand on fire protection services. As noted in Question a.i in Section 3.15.4, the Project would cross areas prone to wildfires. This analysis assumes the Project's compliance with CPUC GO 95, CPUC Decision 12-01-032 (Fire Safety Order), and Standard 1.E of CPUC GO 166, in addition to tree and power line clearance requirements with PRC Section 4292 and Cal. Code Reg. Title 14, Section 1254. The analysis also assumes that the Project would include APM TRA-2 ensuring safe passage and access by emergency response vehicles (i.e., fire protection equipment). Any development that would occur in the cumulative scenario could incrementally increase the demand on fire protection services. However, there is no evidence that these incremental increases in demand collectively would result in substantial adverse physical impacts associated with the provision of or need for new or physically altered fire protection facilities. There is no existing significant adverse condition relating to response capabilities that necessitates new or modified facilities, and the development and operation of projects in the cumulative scenario, together with construction and operation of the Project, would not cause or contribute to a significant cumulative effect in this regard. Even if a significant cumulative effect were to occur to fire protection services, the Project's incremental contribution, which is limited by the compliance with applicable regulations and the APM discussed above, would not be cumulatively considerable because the proposed improvements within the existing San Marcos and Escondido substation sites, pole replacement and removal, and other activities would not substantially increase existing demands on fire protection services. (Less than Significant Impact)

Recreation

As analyzed in Section 3.16, *Recreation*, the Project would have no impact pertaining to the proposed construction or expansion of recreational facilities because the Project does not include recreational components, the construction of which might have an adverse physical effect on the

environment. Therefore, the Project would not cause or contribute to any cumulative impact related to this consideration. (No Impact)

Section 3.16 defines the study area for that analysis as including the parks, open spaces, and other lands used for recreational purposes within 0.5 mile of the Project alignment. The Project would cause a less-than-significant impact related to the potential for a temporary shift in park and recreational facility use from facilities near Project-related construction activities to other facilities. This possible short-term use could lead to temporary indirect impacts on those parks and trails during the few months of construction along each segment, thereby resulting in physical deterioration of those other facilities. The analysis also notes that a number of temporary work areas would be located in close proximity to trails. With implementation of APMs PS-1 to PS-4 – which would require facility closure notification and restoration – and Mitigation Measures NOI-1 and NOI-2 addressing potential noise effects, the analysis found that the Project would have a less-than-significant impact on recreational access.

The ongoing environmental effects of park use resulting from past projects are reflected in the baseline environmental conditions. As explained in Section 3.16.4, *Environmental Impacts*, projects can increase the use of area parks and other recreational facilities by increasing demand and by displacing use from one facility to another. These would include residential projects in the cumulative scenario, such as those included in the Copper Hills Specific Plan (project 2-4) and Harmony Grove Village South (project 3-1). The combined impacts of these and similar projects in the cumulative scenario, together with the incremental impacts of the Project, would not cause substantial physical deterioration of parks and recreational facilities in the Project area to occur or be accelerated such that a significant cumulative impact would result, in part because the specific plans include the development of new parks and recreational amenities to serve new residents. Further, the Project's incremental contribution to a cumulative impact would not be cumulatively considerable because of the limited duration of any potential shift (power line work would occur over the course of 9 months for Segment 2 and 6 months for Segment 3) and because APM PS-4 stipulates that physically impacted recreational facilities would be returned substantially to their pre-construction state at the conclusion of construction. The avoidance and correction of the Project's short-term impacts would assure that any residual incremental impact would not be cumulatively considerable. (Less than Significant Impact)

Transportation and Traffic

As analyzed in Section 3.17, *Transportation and Traffic*, because none of the other projects in the cumulative scenario would contribute to air traffic in the helicopter flight paths that would be used for the Project (i.e., SDG&E's existing ROW) or for ingress and egress from the helicopter landing staging area at the McClellan-Palomar Airport, the Project's less-than-significant impact related to an increase in air traffic levels would not cause or contribute to any significant cumulative effect in this respect. (Less than Significant Impact)

Section 3.17 defines the study area for this analysis as the local and regional transportation system, including roads maintained by the cities of Carlsbad, Vista, San Marcos, and Escondido, as well as the County of San Diego; Interstate 15 (I-15) and State Route (SR) 78. Within this area, and as analyzed in Section 3.17, the Project would have less-than-significant

impacts related to: conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system; a substantial increase in hazards due to a design feature or incompatible uses; and inadequate emergency access. With the implementation of mitigation measures, the Project also would have a less-than-significant impact with respect to conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways; as well as conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

The ongoing environmental effects of past projects are reflected in the baseline environmental conditions, including on-road congestion levels and hazards, flight patterns, and emergency access ways described in Section 3.17.1, *Environmental Setting.* For example, the ongoing impacts of past projects include significant intersection approach delays and low average speeds and/or adverse signal progression (LOS D or LOS E) on I-15 at the SR 78 Junction, on SR 78 at the I-15 Junction, and Auto Park Way at Hale Avenue (see Table 3.17-1, *Summary of Study Area Roadway Characteristics*).

Projects in the cumulative scenario that could contribute increases in average daily traffic (ADT) along road segments where the Project's construction personnel, equipment, and other construction-related trips would access work areas and staging yards would include, but not be limited to, Main Square (project 1-11), Hunter Industries (project 2-1), development in the Copper Hills Specific Plan (project 2-4), and Harmony Grove Village South (project 3-1). These same projects also would contribute to an incremental increase in construction-related roadway hazards that could be offset by the use of guard structures, proper signage, safety cones, flaggers, and other traffic control measures. Cumulative projects that could require lane closures on West San Marcos Boulevard or otherwise affect operation of the bus stops for Breeze Line 445 (the Carlsbad Poinsettia COASTER Connection to Palomar College), which operates along the segment of West San Marcos Boulevard that would be affected by construction of the Project, would include Venture Point Development (project 1-12), McDonald Group (project 1-10), Main Square (project 1-11), San Marcos Boulevard at Discovery Street Improvements (project 1-5), and Vista Palomar (project 1-3).

Implementation of APMs TRA-1 and TRA-2 would require SDG&E to consult and coordinate with local jurisdictions during preparation and implementation of a Traffic Management Plan (TMP) to ensure the safe and efficient transit of vehicles (including emergency vehicles), trains, bicyclists, and pedestrians adjacent to staging and work areas. Jurisdictions affected by the Project require traffic management measures, in the form of a TMP (prepared as part of jurisdictions' encroachment permit requirements), to reduce or avoid impacts caused by construction activities. The other construction projects identified in Table 3.21-1 would also be required to prepare and implement TMPs. Therefore, it is reasonably expected that these jurisdictions, as part of their review of TMPs, would ensure coordination of traffic management measures for concurrent construction projects. Implementation of Mitigation Measure TRA-1 would ensure that SDG&E coordinates with the North County Transit District to ensure minimal disruption to bus transit service on West San Marcos Boulevard. With implementation of the

APMs and this mitigation measure, cumulative impacts during construction would not be cumulatively considerable. (Less than Significant Impact)

Tribal Cultural Resources

As noted in Section 3.5, *Cultural Resources*, and Section 3.18, *Tribal Cultural Resources*, the Project alignment encompasses the ethnographic territories of the Luiseño and Kumeyaay peoples. The responses received by CPUC from the Project's AB 52 tribal consultation process are considered here to define the geographic scope of this cumulative analysis. The responding tribes were the San Luis Rey Band of Mission Indians, Rincon Band of Luiseño Indians, Santa Ysabel Band of the Iipay Nation, Viejas Band of Mission Indians, and the Pala Band of Mission Indians.

Accordingly, the geographic scope for cumulative impacts on tribal cultural resources includes a 1-mile radius from the Project footprint. While the focus of the Project-specific analysis was limited to a 300-foot-wide corridor centered on the Project alignment, this broader geographic scope is appropriate because the tribal cultural resources within this radius are expected to be similar to those in the Project area given their proximity, similar environments, landforms, and hydrology. This would result in similar land use types and, thus, site types.

The Project would have no impact pertaining to tribal cultural resources listed or eligible for the California Register of Historical Resources (CRHR) or in a local register as defined in Public Resources Code (PRC) Section 5020.1(k). The Project-specific analysis identified one resource (P-37-032160) as potentially eligible for the CRHR based on AB 52 consultation. However, as discussed in detail in Section 3.18.4, *Environmental Impacts*, this resource is being treated as a tribal cultural resource at the discretion of CPUC as Lead Agency pursuant to PRC Section 21074(a)(2). Therefore, the Project would not cause or contribute to any cumulative impact related to tribal cultural resources listed or eligible for the CRHR or in a local register as defined in PRC Section 5020.1(k). (No Impact)

Most past, current, and reasonably foreseeable cumulative projects listed in Table 3.21-1 and shown on Figure 3.21-1 would result in ground disturbance and development in the same area as the Project. As resource P-37-032160 is being treated in this analysis as an identified tribal cultural resource, impacts to this resource attributable to the Project, when considered together with the potential effects of cumulative projects, would be significant. The Project would implement Mitigation Measures CUL-1 through CUL-4, which would require feasible measures to substantially reduce the impact to this resource to a less-than-significant level. With the implementation of similar protective measures by other cumulative projects, it is not considered likely that there would be an existing significant adverse cumulative condition to which the Project would contribute. Therefore, as mitigated, the incremental contributions of Project-related impacts would not be cumulatively considerable. (Less than Significant Impact)

Utilities and Service Systems

As noted in Section 3.19, *Utilities and Service Systems*, the Project would have no impact pertaining to exceedance of wastewater treatment requirements of the San Diego RWQCB; the construction of new water or wastewater treatment facilities or expansion of existing facilities;

the construction of new storm water drainage facilities or expansion of existing facilities; the sufficiency of water supplies available to serve the Project from existing entitlements and resources; or the adequacy of capacity to serve the Project's projected demand in addition to the provider's existing commitments. Therefore, the Project would not cause or contribute to any cumulative impact related to these considerations. (No Impact)

With respect to existing permitted landfill capacity, Section 3.19.1, *Environmental Setting*, defines the Project area as that served by the three active and permitted landfills in San Diego County, with an emphasis on the Otay Landfill in Chula Vista. This landfill is approved to accept treated wood waste and which SDG&E has identified as a destination landfill for treated wood waste and other solid waste from the Project. Within the service area of the Otay Landfill, the Project could have a less-than-significant impact related to the sufficiency of landfill capacity to accommodate the Project's solid waste disposal needs. With the implementation of Mitigation Measure US-1, the Project also would have a less-than-significant impact related to compliance with federal, state, and local statutes and regulations related to solid waste.

The ongoing environmental effects of past projects are reflected in the baseline environmental conditions described in Section 3.19.1. As of 2016, the Otay Landfill had approximately 21,194,000 cubic yards of capacity remaining, or approximately 34 percent of the landfill's maximum permitted capacity (Table 3.19-1, *Project Area Landfills*). Many of the residential, commercial, and industrial projects included in the cumulative scenario that could contribute nonhazardous solid waste (specifically including wastes that consist of agricultural waste; ash; construction/demolition waste; contaminated soil; dead animals; green materials; industrial, inert, mixed municipal, other designated waste; sludge (biosolids); tires; or treated wood) to the Otay Landfill. With the remaining capacity at the Otay Landfill and the other two San Diego County landfills (Sycamore, with 113,972,637 cubic yards of capacity remaining as of December 31, 2016, and the West Miramar Sanitary Landfill, with 15,527,878 cubic yards of remaining capacity), there is sufficient capacity to accommodate the landfill needs of the Project and other projects in the cumulative scenario. (Less than Significant Impact)

Wildfire

As analyzed in Section 3.20, *Wildfire*, depending on the pathway of migration, the geographic scope for cumulative effects relating to wildfires would be the air basin, watershed boundary, or extent of adjacent wildlands. Cumulative wildfire hazards could arise at any point during Project construction or operation and maintenance-related activities. Potential cumulative projects (including those identified in Table 3.21-1 and on Figure 3.21-1) could involve fire ignition causes (such as smoking, vehicle or equipment use, campfires, or electrical power) that could contribute to a cumulative risk of wildfire in the Project area.

The Project would result in a less-than-significant impact regarding the interference with adopted emergency response or evacuation plans. As noted in Section 3.20.4, *Environmental Impacts*, Question a, the Project would not conflict with or impair the implementation of the 2018 Strategic Fire Plan for California or the goals or objectives listed in the 2018 San Diego Unit Strategic Fire Plan. Additionally, as described in SDG&E's Electric Standard Practice-113.1 "SDG&E Operations & Maintenance Wildland Fire Prevention Plan," an SDG&E Fire Coordinator would

be responsible for communicating and coordinating with local fire prevention and emergency response agencies throughout operation and maintenance activities, actions which align with the aforementioned plans. With its compliance with these plans and SDG&E's standard practices, the Project would not cause or contribute to any cumulative impact related to interference with adopted emergency response or evacuation plans. (Less than Significant Impact)

Although the Project would not accommodate occupants, it passes through existing communities. Therefore, the Project has the potential to expose these communities to wildfire risks. As noted in Section 3.20.4, under Question b, parts of the Project would be located in moderate-to-very high fire hazard severity zones, as well as a SDG&E Fire Threat Zone. To ensure that potentially significant wildland fire impacts are reduced to a less-than-significant level during Project construction, Mitigation Measure WIL-1 would be implemented.

A large portion of San Diego County has been designated as being within a moderate, high, or very high fire hazard severity zone (CAL FIRE, 2007, 2009). Since 2000, San Diego County has been subject to a number of large, severe fire events, such as the Cedar Fire (2003), the Witch and Harris fires (2007), and the firestorm swarm of 2014. Wildfires in the Project vicinity include the Harmony fire of 1996 and the Cocos and Poinsettia fires.

However, as noted in Section 3.20.1, *Environmental Setting (Fire History)*, electric utilities accounted for only 1 percent of wildfires in the CAL FIRE San Diego Unit from 2013 to 2017. Section 2.5.3, *Pre-Construction Preparation*, notes that the Project includes access roads and vegetation clearance provisions. These features would aid in reducing wildfire risk and facilitating emergency suppression of fires. SDG&E has developed operating protocols and safety standards that minimize the risk of wildland fires during SDG&E operation and maintenance activities. SDG&E has prepared a Fire Prevention Plan in compliance with CPUC Decision 12-01-032 (Fire Safety Order) and Standard 1.E of General Order 166, which requires SDG&E to prepare and submit plans to minimize the risk of catastrophic wildfire posed by all of SDG&E's overhead electric lines and equipment during extreme fire-weather events. The Project would be included in this plan. Also, wildland fire prevention would occur through implementation of SDG&E's Electric Standard Practice 113.1 (SDG&E, 2014). Among the many procedures presented in this standard practice, it requires emergency suppression equipment to be carried by crews working in fire threat zones. With the access roads, vegetation clearance provisions, emergency suppression equipment, etc., that would be incorporated into the Project, its incremental impact would not be cumulatively considerable. (Less than Significant Impact)

As noted in Section 3.20.4, under Question d, the Project would not include any housing or structures and; therefore, would not expose people or structures to any increased level or risk associated with flooding, landslides, or post-fire slope instability. The analysis also notes that the Project would not result in changes to drainage patterns which could exacerbate downslope or downstream flooding, nor exacerbate existing risks associated with landslides or mudslides. These less-than-significant findings are attributable to the Project's adherence to the Construction Stormwater General Permit and Mitigation Measure GEO-1 requiring the Project compliance with recommendations of the final geotechnical report, as well as Mitigation Measure WIL-1 and the fire prevention plans and practices discussed in Section 3.20.4, under Question b. Based on

this, the Project's incremental less-than-significant impact would not be cumulatively considerable. (Less than Significant Impact)

c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly: *LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.*

The Project would not have environmental effects that would cause substantial direct or indirect adverse effects on human beings with implementation of the identified mitigation measures. Implementation of the mitigation measures identified in the respective sections of this IS/MND would reduce or avoid such impacts on human beings to a less than significant level.

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CHAPTER 5

Mitigation Monitoring, Reporting and Compliance Program

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MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM

San Diego Gas & Electric's San Marcos to Escondido TL6975 69 kV Project

(APPLICATION NO. A.17-11-010)

Introduction

This document describes the mitigation monitoring, reporting, and compliance program (MMRCP) for ensuring the effective implementation of the mitigation measures required for approval by the California Public Utilities Commission (CPUC) of the application by the San Diego Gas and Electric Company's (SDG&E) to construct, operate and maintain the SDG&E San Marcos to Escondido Tie Line (TL) 6975 69kV Project (Project). The MMRCP includes all measures proposed by SDG&E, as well as all mitigation measures identified by the CPUC to reduce potentially significant impacts to less than significant.

If the Project is approved, this MMRCP would serve as a self-contained general reference for the MMRCP adopted by the CPUC for the Project. If and when the Project is approved, the CPUC will compile the Final MMRCP to assure that it includes all measures as adopted.

California Public Utilities Commission – MMRCP Authority

The California Public Utilities Code in numerous places confers authority upon the CPUC to regulate the terms of service and the safety, practices, and equipment of utilities subject to its jurisdiction. It is the standard practice of the CPUC, pursuant to its statutory responsibility to protect the environment, to require that mitigation measures stipulated as conditions of approval are implemented properly, monitored, and reported on. In 1989, this requirement was codified statewide as Section 21081.6 of the Public Resources Code. Section 21081.6 requires a public agency to adopt a reporting or monitoring program when it adopts a mitigated negative declaration for a project that could have potentially significant environmental effects. California Environmental Quality Act (CEQA) Guidelines Section 15097 was added in 1999 to further clarify agency requirements for mitigation monitoring and reporting.

The purpose of a MMRCP is to ensure that measures adopted to mitigate or avoid significant impacts of a project are implemented. The CPUC views the MMRCP as a working guide to facilitate not only the implementation of mitigation measures by the project proponent, but also the monitoring, compliance, and reporting activities of the CPUC and any monitors it may designate.

The CPUC will address its responsibility under Public Resources Code Section 21081.6 when it takes action on SDG&E's application. If the CPUC approves the application, it also will adopt a MMRCP that includes the mitigation measures, as well as the APMs, the implementation of which will ultimately made conditions of approval by the CPUC.

Because the CPUC must decide whether or not to approve the SDG&E application and because the application may cause either direct or reasonably foreseeable indirect effects on the environment, CEQA requires the CPUC to consider the potential environmental impacts that could occur as the result of its decision and to consider mitigation for any identified significant environmental impacts.

If the CPUC approves SDG&E's application for authority to reinforce the electric transmission and distribution system, SDG&E would be responsible for implementation of all adopted Applicant Proposed Measures (APM) and CPUC-recommended mitigation measures governing the construction, operation, and maintenance of the Project. Though other federal, State, and local agencies would have permit and approval authority over some aspects of the Project, the CPUC would continue to act as the lead agency for monitoring compliance with all mitigation measures required by the adopted IS/MND. All approvals and permits obtained by SDG&E would be submitted to the CPUC prior to commencing the activity for which the permits and approvals were obtained.

In accordance with CEQA, the CPUC reviewed the impacts that would result from approval of the application. The activities considered include installation of new overhead single-circuit electric power line structures, rebuild of existing structures from single circuit to double circuit, and the reconductoring and re-energizing of existing conductors, pursuant to CPUC General Order (GO) 131-D. This would involve removal and/or replacement of power poles, placement of new poles and other distribution line upgrades. The Project is located primarily in the cities of San Marcos and Escondido and unincorporated areas in northern San Diego County, California. It would originate at the San Marcos Substation on the west and terminate at the Escondido Substation on the east and would be located within SDG&E right-of-way (ROW). To fully accommodate the Project, 1.2 acres of additional ROW would be acquired in San Marcos.

The CPUC review concluded that implementation of the Project would not result in any significant unmitigable impacts. All impacts would be mitigated to less-than-significant levels or would be less than significant. SDG&E has agreed to incorporate all the CPUC-recommended mitigation measures into the Project. The CPUC has included the stipulated mitigation measures as conditions of approval of the application and has circulated an IS/proposed MND for public review.

The attached IS/MND presents and analyzes potential environmental impacts that would result from construction, operation, and maintenance of the Project, and recommends mitigation measures as appropriate. Based on the IS/MND, approval of the application would have no impact or less than significant impacts in the following areas:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Energy
- Greenhouse Gas Emissions
- Land Use and Planning
- Mineral Resources
- Population and Housing

The IS/MND indicates that approval of the application would result in potentially significant impacts in the areas listed below, and so identifies adopted APMs and mitigation measures that have been accepted by SDG&E to reduce the significance below established thresholds.

- Biological Resources
- Cultural Resources
- Geology, Soils, Seismicity, and Paleontological Resources
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Noise
- Public Services
- Recreation
- Transportation and Traffic
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

Roles and Responsibilities

As the lead agency under CEQA, the CPUC is required to monitor the Project, if approved, to ensure that the required mitigation measures and adopted APMs are implemented. The CPUC will be responsible for ensuring full compliance with the provisions of this MMRCP and has primary responsibility for implementation of the monitoring program. The purpose of the monitoring program is to document that the mitigation measures and APMs required and relied upon by the CPUC are implemented and that mitigated environmental impacts are reduced to a less-than-significant level. The CPUC has the authority to halt any activity associated with the Project if the activity is determined to be a deviation from the approved Project or the adopted APMs and mitigation measures.

Consistent with CEQA Guidelines section 15097(a), the CPUC may delegate duties and responsibilities for monitoring to other mitigation monitors or consultants as deemed necessary. The CPUC will ensure that the person(s) delegated any duties or responsibilities are qualified to monitor compliance.

The CPUC, along with its mitigation monitor, will ensure that any minor Project refinement process, which will be designed specifically for the Project, or deviation from the procedures identified under the monitoring program is consistent with CEQA requirements; no minor Project refinement will be approved by the CPUC if it creates new significant environmental impacts. As defined in this MMRCP, a minor Project refinement should be strictly limited to minor Project changes that will not trigger other permit requirements, that does not increase the severity of an impact or create a new impact, and that clearly and strictly complies with the intent of the mitigation measure. A change to the Project that has the potential for creating significant environmental effects will be evaluated to determine whether supplemental CEQA review is required. Any proposed deviation from the approved Project and adopted APMs or mitigation measures, including correction of such deviation, shall be reported immediately to the CPUC and the mitigation monitor assigned to the construction for their review and CPUC approval. In some cases, a minor Project refinement also may require approval by a CEQA responsible agency.

Enforcement and Responsibility

The CPUC is responsible for enforcing the procedures for monitoring through the mitigation monitor. The mitigation monitor shall note any problems with implementation of mitigation, notify appropriate agencies or individuals about such problems, and report the problems to the CPUC. The CPUC has the authority to halt any construction, operation, or maintenance activity associated with the Project if the activity is determined to be a deviation from the approved Project or adopted APMs or mitigation measures. The CPUC may assign its authority to its mitigation monitor.

Mitigation Compliance Responsibility

SDG&E is responsible for successfully implementing all of the adopted APMs and mitigation measures in this MMRCP. The MMRCP contains criteria that define whether mitigation is successful. Standards for successful mitigation also are implicit in many mitigation measures that include such requirements as obtaining permits or avoiding a specific impact entirely. Additional mitigation success thresholds will be established by applicable agencies with jurisdiction through the permit process and through the review and approval of specific plans for the implementation of mitigation measures.

SDG&E shall inform the CPUC and its mitigation monitor in writing of any mitigation measures that are not or cannot be successfully implemented. The CPUC in coordination with its mitigation monitor will assess whether alternative mitigation is appropriate and specify to SDG&E the subsequent actions required.

Dispute Resolution Process

The following procedure will be observed for dispute resolution between CPUC staff and the applicant:

- Disputes and complaints should be directed to the CPUC's designated Project Manager for resolution.
- Should this informal process fail, the CPUC Project Manager may initiate enforcement or compliance action to address deviations from the approved Project.

General Monitoring Procedures

Mitigation Monitor

Many of the monitoring procedures will be conducted during the construction phase of the Project. The CPUC and the mitigation monitor are responsible for integrating the mitigation monitoring procedures into the construction process in coordination with SDG&E. To oversee the monitoring procedures and to ensure success, the mitigation monitor assigned to the construction must be on site during that portion of construction that has the potential to create a significant environmental impact or other impact for which mitigation is required. The mitigation monitor is responsible for ensuring that all procedures specified in this MMRCP are followed.

Construction Personnel

A key feature contributing to the success of mitigation monitoring will be obtaining the full cooperation of construction personnel and supervisors. Many of the mitigation measures and APMs require action on the part of the construction supervisors or crews for successful implementation. To ensure success, the following actions, detailed in specific mitigation measures included in this MMRCP, will be taken:

- SDG&E shall require all contractors to comply with the conditions of Project approval, including all adopted APMs and mitigation measures.
- One or more pre-construction meetings will be held to inform all and train construction personnel about the requirements of the MMRCP.
- A written summary of mitigation monitoring procedures will be provided to construction supervisors for all adopted APMs and mitigation measures requiring their attention.

SDG&E will also be responsible for retaining the qualified archaeologists, qualified biologists/biological monitors, qualified paleontologists, licensed engineers, qualified environmental trainers, Lead Environmental Inspectors, etc., specified in the adopted APMs and mitigation measures.

General Reporting Procedures

Site visits and specified monitoring procedures performed by other individuals will be reported to the mitigation monitor assigned to the construction. A monitoring record form will be submitted to the mitigation monitor by the individual conducting the visit or procedure so that details of the visit can be recorded and progress tracked by the mitigation monitor. A checklist will be developed and maintained by the mitigation monitor to track all procedures required for each mitigation measure and to ensure that the timing specified for the procedures is adhered to. The mitigation monitor will note any problems that may occur and take appropriate action to rectify the problems. SDG&E shall provide the CPUC with written quarterly reports of the Project, which shall include progress of construction, resulting impacts, mitigation implemented, and all other noteworthy elements of the Project. Quarterly or annual reports shall be required as long as mitigation measures are applicable.

Public Access to Records

The CPUC will make monitoring records and reports available for public inspection upon request. The CPUC and SDG&E will develop a filing and tracking system.

Condition Effectiveness Review

In order to fulfill its statutory mandates to mitigate or avoid significant effects on the environment and to design a MMRCP to ensure compliance during project implementation (Pub. Res. Code §21081.6):

- The CPUC may conduct a comprehensive review of measures which are not effectively mitigating impacts at any time it deems appropriate, including as a result of the Dispute Resolution Process outlined above; and
- If in either review, the CPUC determines that any conditions are not adequately mitigating significant environmental impacts caused by the Project, or that recent proven technological advances could provide more effective mitigation, then the CPUC may impose additional reasonable conditions to effectively mitigate these impacts.

These reviews will be conducted in a manner consistent with the CPUC's rules and practices.

Mitigation Monitoring, Reporting and Compliance Program

The table attached to this MMRCP presents a compilation of the adopted APMs and mitigation measures in the IS/MND. The purpose of the table is to provide a single comprehensive list of impacts, mitigation measures, adopted APMs, monitoring and reporting requirements, and timing. SDG&E proposed APMs to minimize impacts to the environment from implementation of the Project. In some instances, those APMs have been superseded by CPUC-recommended mitigation measures, as described in the IS/MND. The table below identifies only those APMs that have not been superseded and will be implemented as part of the Project.

TABLE 5-1
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE SDG&E SAN MARCOS TO ESCONDIDO TL6975 69KV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Aesthetics				
	No mitigation required.			
Agriculture and Forestry Resources				
	No mitigation required.			
Air Quality				
	No mitigation required.			
Biological Resources				
Sensitive and Special-status areas and species	**APM BIO-1:** SDG&E will conduct all construction and operation and maintenance activities in accordance with NCCP Operational Protocols to avoid and minimize impacts on biological resources.	SDG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance	During construction, operation and maintenance of the Project
	APM BIO-2: All earth-moving equipment will be free of mud and vegetative material before being mobilized onto work areas associated with the Project.	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance	Prior to and during construction
	APM BIO-3: Except when not feasible due to physical or safety constraints, all Project construction vehicle movement will be restricted to the Project work areas, existing roads, and access roads constructed as a part of the Project and mapped by SDG&E in advance of construction. Approval from a biological monitor will be obtained prior to vehicle travel off of existing access roads.	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance	Prior to and during construction
	APM BIO-4: Civil and land survey personnel will keep survey vehicles on existing roads. During Project surveying activities, brush clearing for footpaths, line-of-sight cutting, and land surveying panel point placement in sensitive habitat prior approval will be required from the Project's biological monitor. Hiking off roads or paths for survey data collection will be allowed year-round as long as all of the other applicable APMs are met.	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance	During Project surveying activities
	APM BIO-5: Prior to the start of construction, the boundaries of sensitive plant populations that require protection will be delineated with clearly visible flagging or fencing by a qualified biologist. The flagging and/or fencing will be maintained in place for the duration of construction. Flagged and fenced areas will be avoided to the extent practicable during construction activities in that area. If impacts on sensitive plant species are unavoidable, SDG&E will perform soil and plant salvage activities to enhance recovery of these special-status plants, consistent with the provisions in the Enhancement Section 7.2.1 of the NCCP. These include the stockpiling of native soil in the area where Nuttall's scrub oak and wart-stemmed Ceanothus occur and top soil replacement after construction. Quality assurances and success criteria milestones for the restoration area as a whole will conform to the standards provided in Enhancement Section 7.2.1 of the NCCP.	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance	Prior to and during construction

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE SDG&E SAN MARCOS TO ESCONDIDO TL6975 69KV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Biological Resources (cont.)				
Sensitive and Special-status areas and species *(cont.)*	**APM BIO-6:** ***Coastal California Gnatcatcher.*** Prior to construction, SDG&E shall retain a qualified biologist to conduct surveys for the coastal California gnatcatcher in suitable habitat, to determine if any active nests are within or in the immediate vicinity of proposed construction activities. If feasible, SDG&E will avoid construction during the peak breeding season (February 15 – August 31) for coastal California gnatcatcher and migratory birds. When it is not feasible to avoid trimming or removal of vegetation or during the peak breeding season, SDG&E will perform a site survey in the area where the work is to occur. Trimming or removal of vegetation during the peak breeding season will require a preconstruction survey by a qualified biologist to confirm that active nests will not be affected. This survey will be performed to determine the presence or absence of nesting birds. If an active nest (i.e., containing eggs or young) is identified within the construction area during the survey, work will be temporarily halted and redirected away from the site. The qualified biologist in the field will determine a no-work buffer zone around the nest of sufficient size and dimensions that construction activities will not result in disturbance or direct removal of the active nest, or will not cause a breeding bird to abandon its nest. If the nesting and/or breeding activities are being conducted by a federal or state-listed species, SDG&E will consult with the USFWS and CDFW as necessary. Monitoring of the nest will continue until the birds have fledged or construction is no longer occurring on site. **Migratory Birds.** Trimming or removal of vegetation during the peak breeding season (February 15 to August 31) will require a pre-construction survey by a qualified biologist to confirm that active nests will not be affected. If an active nest is detected within the construction area during the survey, work will be temporarily halted and redirected away from the site. The qualified biologist in the field will determine a no-work buffer zone around the nest of sufficient size and dimensions that construction activities will not result in disturbance or direct removal of the active nest, or will not cause a breeding bird to abandon its nest.	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance	Prior to construction
	APM BIO-7: If a raptor nest is observed during preconstruction surveys, a qualified biologist would determine if it is active. If the nest is determined to be active, the biological monitor would monitor the nest to ensure nesting activities and/or breeding activities are not substantially adversely affected. If the biological monitor determines that Project activities are disturbing or disrupting nesting and/or breeding activities, the monitor will make recommendations to reduce the noise and/or disturbance in the vicinity of the nest.	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance	Prior to and during construction
	APM BIO-8: A biological monitor will be present during all ground-disturbing and vegetation removal activities. Immediately prior to initial ground-disturbing activities and/or vegetation removal, the biological monitor will survey the site to ensure that no special-status species will be impacted.	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance	During all ground disturbing and vegetation removal activities
	APM BIO-9: Wherever possible, vegetation will be left in place or mowed, instead of grubbed, to avoid excessive root damage and to allow for regrowth and to minimize soil erosion.	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance	During all project activities

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE SDG&E SAN MARCOS TO ESCONDIDO TL6975 69KV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Biological Resources (cont.)				
Special-Status Species	**Mitigation Measure BIO-1: Project Compliance with the Federal and California Endangered Species Acts.** Prior to approval of the Notice to Proceed (NTP), SDG&E shall provide CPUC with a written commitment to implement its 1995 Subregional Natural Community Conservation Plan (NCCP) or 2017 Low Effect HCP (LEHCP), including proof that sufficient mitigation/take credits are assigned to the Project to cover potential impacts on all special-status plant and animal species present in the BSA or having moderate or high potential to occur in the biological study area (BSA). If there are not sufficient mitigation/take credits available in the NCCP or LEHCP at the time of NTP approval, then prior to the commencement of Project construction, SDG&E shall secure take authorization from the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW), as appropriate, for all federal and State-listed special-status plant and animal species present in the BSA or having moderate or high potential to occur in the BSA that are impacted by the Project. The conditions of these authorizations shall be equally or more effective than the protocols and practices included in the NCCP/LEHCP. SDG&E shall provide the CPUC with copies of these authorizations to show that compliance with permitting conditions would be equal to or more effective than the approved NCCP/LEHCP protocols and practices. SDG&E shall also submit to CPUC any monitoring reports, incident reports, etc., required by USFWS and/or CDFW when submitted to those agencies.	SDG&E and its contractors to implement measure as defined	SDG&E to provide written documentation to CPUC Project Manager and mitigation monitor in order to confirm compliance	Prior to construction
Active Nests	**Mitigation Measure BIO-2: Establishment of Cylindrical Construction Buffers.** The biological monitor shall establish a three-dimensional cylinder-shaped buffer around active nests that have the potential to be affected by helicopter use or ground-based activities associated with helicopter use. A vertical buffer shall extend at least 300 feet vertically above the location of the nest and at least 300 feet horizontally for passerines (or 500 feet vertically and horizontally for raptors and 500 feet vertically and 0.5 mile horizontally for white-tailed kite). The biological monitor and SDG&E project manager shall monitor the helicopter tracks (i.e., flight patterns, durations) daily to ensure compliance with these established buffers. This buffer assumes the helicopter activities are temporary or infrequent in nature (no longer than one minute [e.g., pass-by] or visit the site once in a day) If helicopter work occurs in the vicinity of an active nest for an extended period of time, the biological monitor may determine, based on the nature of the work and nest monitoring observations, that the buffer is insufficient for the nest and adjust the buffer distance appropriately.	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance	Prior to and during construction and helicopter use
Jurisdictional Areas	**Mitigation Measure BIO-3: Avoid Jurisdictional Resources.** To avoid impacts on jurisdictional areas, SDG&E and its contractor shall flag work area limits and work shall be restricted to the flagged limits. Additionally, silt fencing shall be installed on the side of the work area closest to the jurisdictional feature, to minimize construction-generated run-off or sedimentation. A qualified biologist shall verify that silt fencing and construction work is properly installed and are located outside of jurisdictional areas to confirm their avoidance. Monitoring shall take place during rain events to confirm the integrity of silt fencing and verify runoff does not enter jurisdictional areas.	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance	Prior to and during construction

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE SDG&E SAN MARCOS TO ESCONDIDO TL6975 69KV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Cultural Resources				
Historical and Archaeological Resources	**Mitigation Measure CUL-1: Retention of Qualified Archaeologist.** Prior to the start of any ground disturbing activity, a Qualified Archaeologist, defined as an archaeologist meeting the Secretary of the Interior's Standards for professional archaeology (U.S. Department of the Interior, 2008) shall be retained by SDG&E to carry out all APMs and mitigation measures related to archaeological resources.	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to confirm compliance	Prior to construction
	Mitigation Measure CUL-2: Pre-Construction Cultural Resources Sensitivity Training. Prior to the start of any ground-disturbing activity, the Qualified Archaeologist shall prepare cultural resources sensitivity training materials for use during Project-wide Worker Environmental Awareness Training (or equivalent). The cultural resources sensitivity training shall be conducted by a qualified environmental trainer (often the Lead Environmental Inspector [LEI] or equivalent position) working under the supervision of the Qualified Archaeologist. The Qualified Archaeologist shall determine and ensure the suitability of the qualified environmental trainer. The cultural resources sensitivity training shall be conducted for all construction personnel. Construction personnel shall be informed of the types of archaeological resources that may be encountered, and of the proper procedures to be implemented in the event of an inadvertent discovery of archaeological resources or human remains. SDG&E shall ensure that construction personnel are made available for and attend the training and retain documentation demonstrating attendance.	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to confirm compliance	Prior to construction
	Mitigation Measure CUL-3: Development and Implementation of Cultural Resources Monitoring Plan. Prior to the start of any Project-related ground disturbing activities the Qualified Archaeologist shall prepare a Cultural Resources Monitoring Plan (CRMP). The CRMP shall stipulate the location and timing of archaeological and Native American monitoring, including, but not limited to, the monitoring of all ground disturbing activities within 250 feet of P-37-032160 and within 100 feet of the remaining 10 archaeological resources (P-37-004495, -004499, -005501, -007306, -010551, -010550, -011442, -012209, -034831, and TL6975-S-5) that have the potential to contain or are known to contain subsurface archaeological deposits, as well as all ground disturbing activities within Segment 3 and the easternmost 500 feet of Segment 2. The CRMP shall include monitoring protocols to be carried out during Project construction. The CRMP shall stipulate that a Native American monitor associated with one or more of the Native American groups that have expressed interest in the Project (i.e. San Luis Rey Band of Mission Indians, Rincon Band of Luiseno Indians, and/or Santa Ysabel Band of the Iipay Nation) be retained to monitor all Project-related ground disturbance stipulated in the CRMP. In preparing the CRMP, the Native American groups that have expressed interest in monitoring shall be consulted regarding the scheduling of monitors. A Native American monitoring schedule shall be incorporated into the CRMP. The CRMP shall contain an allowance that the Qualified Archaeologist, based on observations of subsurface soil stratigraphy or other factors during initial grading, and in coordination with the Native American monitor(s) and SDG&E, may reduce or discontinue monitoring as warranted if it is determined that the possibility of encountering archaeological deposits is low. The CRMP shall outline the appropriate measures to be followed in the event of unanticipated	SDG&E and its contractors to implement measure as defined	CPUC to review and approve CRMP. CPUC mitigation monitor to confirm compliance	Prior to any Project-related ground disturbing activities and during construction

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE SDG&E SAN MARCOS TO ESCONDIDO TL6975 69KV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Cultural Resources (cont.)				
Historical and Archaeological Resources *(cont.)*	discovery of cultural resources during Project implementation, including that all ground disturbance within 100 feet of an unanticipated discovery shall cease until a treatment plan is developed by the Qualified Archaeologist in coordination with SDG&E and the Native American monitor(s) and which will consider the resources archaeological and tribal value. The CRMP shall identify avoidance as the preferred manner of mitigating impacts to cultural resources. The CRMP shall establish the criteria utilized to evaluate the significance (per CEQA) of the discoveries, methods of avoidance consistent with CEQA Guidelines Section 15126.4(b)(3), as well as identify the appropriate treatment to mitigate the effect of the Project if avoidance of a significant resource is determined to be infeasible. The CRMP will also include provisions for the treatment of archaeological sites that qualify as unique archaeological resources pursuant to PRC Section 21083.2, which places limits on the costs of mitigation for unique archaeological resources. The plan shall also include reporting of monitoring results within a timely manner, curation of artifacts and data at an approved facility, and dissemination of reports to local and State repositories. The CRMP shall be submitted to SDG&E and CPUC for review and approval prior to the start of Project-related ground disturbance, as well as to the Native American groups that have expressed interest in the Project (i.e. San Luis Rey Band of Mission Indians, Rincon Band of Luiseno Indians, and/or Santa Ysabel Band of the Iipay Nation) for review and comment.			
	Mitigation Measure CUL-4: Data Recovery Excavations at P-37-032160. Prior to the start of any Project-related ground disturbing activities within 250 feet of archaeological site P-37-032160, data recovery excavations shall be carried out to collect scientifically consequential data associated with known resource P-37-032160 where Project-related ground disturbing activities including but not limited to pole replacement, trenching, potholing, and AC mitigation well and test station installations will be carried out. Prior to the start of the data recovery excavations, a research design shall be prepared by the Qualified Archaeologist outlining the research questions to be addressed as part of the data recovery, as well as the field and lab methods and any special studies proposed to obtain the scientifically consequential information. The research design shall be submitted to SDG&E and CPUC for review and approval prior to the start of the data recovery excavations, as well as to the San Luis Rey Band of Mission Indians for review and comment. A data recovery report presenting the methods and results of the data recovery excavations shall be prepared and reviewed by the CPUC and SDG&E, and submitted to the San Luis Rey Band of Mission Indians for review and comment. The final data recovery report shall be placed on file at the South Coast Information Center.	SDG&E and its contractors to implement measure as defined	CPUC to review and approve CRMP. CPUC mitigation monitor to confirm compliance	Prior to any Project-related ground disturbing activities and data recovery excavations
	Mitigation Measure CUL-5: Exclusionary Fencing. Prior to Project-related ground disturbing activities, exclusionary fencing shall be installed to ensure that the five previously recorded archaeological sites within or immediately adjacent to the Project alignment that have surface manifestations (P-37-004495, -004499, -007306, -012209, and TL6975-S-5) are not inadvertently impacted during Project implementation. The exclusionary fencing shall encompass the mapped site boundaries plus a 25-foot radius to ensure an appropriate buffer is maintained between the sites and Project-related ground disturbing activities. For the four archaeological resources bisected by Project access roads (P-37-004495, -004499, -007306,	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance	Prior to Project-related ground disturbing activities

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE SDG&E SAN MARCOS TO ESCONDIDO TL6975 69KV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Cultural Resources (cont.)				
Historical and Archaeological Resources *(cont.)*	and TL6975-S-5), the exclusionary fencing shall be established along the shoulder of the existing roads. To ensure avoidance, the exclusionary fencing shall be marked with signs indicating that staff associated with the Project are not to go beyond the limits of the fencing. The exclusionary fencing shall not identify the protected areas as demarcating archaeological resources in order to discourage unauthorized disturbance, vandalism, or collection of artifacts.			
	Mitigation Measure CUL-6: Pre-Construction Surveys. Prior to the start of Project-related ground disturbing activities, pre-construction surveys of the four archaeological sites bisected by existing access roads (P-37-004495, -004499, -007306, and TL6975-S-5) shall be conducted to map and collect all artifacts located within the road beds. Artifact mapping shall be conducted using a hand held GPS unit capable of sub-meter accuracy, and the final disposition of the artifacts shall be determined by SDG&E in coordination with the San Luis Rey Band of Mission Indians.	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to confirm compliance	Prior to Project-related ground disturbing activities
	Mitigation Measure CUL-7: Road Maintenance within Archaeological Sites. During Project implementation, routine road maintenance, including but not limited to grading and blading, shall be avoided within the four archaeological sites bisected by existing access roads (P-37-004495, -004499, -007306, and TL6975-S-5). Should maintenance activities such as drainage or culvert repairs be required to stabilize the access road, all ground disturbing activities within 100 feet of the four archaeological sites shall be monitored as stipulated in the CRMP.	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance	During construction
Human Remains	**Mitigation Measure CUL-8: Inadvertent Discovery of Human Remains.** If human remains are uncovered during Project construction, all work within 100 feet of the find shall be immediately halted, and the San Diego County coroner shall be contacted to evaluate the remains, and follow the procedures and protocols set forth in Section 15064.5(e)(1) of the CEQA Guidelines. If the County Coroner determines that the remains are Native American, the County Coroner shall contact the California Native America Heritage Commission (NAHC), in accordance with Health and Safety Code Section 7050.5(c), and Public Resources Code Section 5097.98 (as amended by AB 2641). The NAHC shall then identify a Most Likely Descendant (MLD) of the deceased Native American, who shall then help determine what course of action should be taken in the disposition of the remains. Per Public Resources Code Section 5097.98, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this section, with the MLD regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to confirm compliance	During construction
Energy				
	No mitigation required.			

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE SDG&E SAN MARCOS TO ESCONDIDO TL6975 69KV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Geology, Soils, Seismicity, and Paleontological Resources				
Ground Failure, Slope Instability, and Landslides	**Mitigation Measure GEO-1: Geotechnical Report.** The structural requirements of the California Building Code (CBC) are applicable to certain structural components of the Project, including retaining walls, screen walls, fences, and control shelters. SDG&E and/or its contractors shall design such structures to comply with such CBC standards and shall adhere to and implement all design recommendations and parameters established in the Project's Geotechnical Investigation Report by GEOCON Inc. and the AC Interference Analysis & Mitigation System Design by ARK Engineering & Technical Services. In addition, SDG&E shall retain a California registered professional engineer(s) to prepare a supplemental geotechnical report. This report shall address specific geotechnical hazards that were not addressed in the Geotechnical Investigation Report, and provide recommendations for mitigating such hazards. The analysis in that report shall include, but not be limited to, the following: • recommendations to address the liquefaction risk within the Quaternary alluvium along Segment 1 and 3, if any; • recommendations to address the corrosive soils that are present along Segments 1 and 2, if any, which pose a risk to the concrete pier foundations and direct bury poles; • recommendations to address the landslide potential along Segment 2, if any, where planned ground disturbing activities could trigger landslides; and, • evaluation of the site-specific conditions and recommendations specific to micropiles where proposed, if final design includes the use of micropiles. The recommendations shall ensure that when incorporated, the Project shall not increase the potential for ground failure, slope instability, and/or landslides, and shall be resistant to damage from ground shaking, ground failure, corrosive soils, unstable slopes, and landslides. SDG&E shall submit the supplemental geotechnical report to the CPUC Project Manager for review and approval at least 30 days prior to the start of construction.	SDG&E and its contractors to implement measure as defined	CPUC PM to review and approve supplemental report. CPUC mitigation monitor to confirm compliance	At least 30 days prior to construction
Paleontological Resources	**Mitigation Measure PALEO-1: Project Paleontologist.** SDG&E or its contractor shall retain a qualified professional paleontologist (qualified paleontologist) meeting the Society of Vertebrate Paleontology (SVP) standards as set forth in the "Definitions" section of Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources (2010) prior to the approval of demolition or grading permits. The qualified paleontologist shall attend the Project kick-off meeting and Project progress meetings on a regular basis, shall report to the site in the event potential paleontological resources are encountered, and shall implement the duties outlined in Mitigation Measures PALEO-2 through PALEO-4.	SDG&E and its contractors to implement measure as defined	SDG&E qualified paleontologist to inspect compliance. CPUC mitigation monitor to confirm compliance	Project meetings (i.e., kick-off and regular basis meetings) and during all project activities (i.e., construction, operation, and maintenance)

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE SDG&E SAN MARCOS TO ESCONDIDO TL6975 69KV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Geology, Soils, Seismicity, and Paleontological Resources				
Paleontological Resources *(cont.)*	**Mitigation Measure PALEO-2: Worker Training.** Prior to the start of any ground disturbing activity (including vegetation removal, pavement removal, etc.), the qualified paleontologist shall prepare paleontological resources sensitivity training materials for use during Project-wide Worker Environmental Awareness Training (or equivalent). The paleontological resources sensitivity training shall be conducted by a qualified environmental trainer (often the Lead Environmental Inspector [LEI] or equivalent position) working under the supervision of the qualified paleontologist. In the event construction crews are phased, additional trainings shall be conducted for new construction personnel. The training session shall focus on the recognition of the types of paleontological resources that could be encountered within the Project site and the procedures to be followed if they are found, as outlined in the approved Paleontological Resources Monitoring and Mitigation Plan in Mitigation Measure PALEO-3. SDG&E and/or its contractor shall retain documentation demonstrating that all construction personnel attended the training prior to the start of work on the site, and shall provide the documentation to the CPUC Project Manager upon request.	SDG&E and its contractors to implement measure as defined	SDG&E qualified paleontologist to confirm compliance and provide specified documentation to CPUC PM	Prior to any ground disturbing activities
	Mitigation Measure PALEO-3: Paleontological Monitoring. The qualified paleontologist shall prepare, and SDG&E and/or its contractors shall implement, a Paleontological Resources Monitoring and Mitigation Plan (PRMMP). SDG&E shall submit the plan to the CPUC Project Manager for review and approval at least 30 days prior to the start of construction. This plan shall address specifics of monitoring and mitigation and comply with the recommendations of the SVP (2010), as follows. • The qualified paleontologist shall identify, and SDG&E or it contractor(s) shall retain, qualified paleontological resource monitors (qualified monitors) meeting the SVP standards (2010). • The qualified paleontologist and/or the qualified monitors under the direction of the qualified paleontologist shall conduct full-time paleontological resources monitoring for all ground-disturbing activities in previously undisturbed sediments in the Project site that have high paleontological sensitivity. This includes any depth of excavation into the Santiago Formation, as well as excavations that exceed 10 feet in depth in areas mapped as young alluvial floodplain deposits that overlie the Santiago Formation. The PRMMP shall clearly map these portions of the Project based on final design provided by SDG&E and/or its contractor(s). • If many pieces of heavy equipment are in use simultaneously but at diverse locations, each location will need to be individually monitored. • Monitors shall have the authority to temporarily halt or divert work away from exposed fossils in order to evaluate and recover the fossil specimens, establishing a 50-foot buffer. • If construction or other Project personnel discover any potential fossils during construction, regardless of the depth of work or location and regardless of whether the site is being monitored, work at the discovery location shall cease in a 50-foot radius of the discovery until the qualified paleontologist has assessed the discovery and made recommendations as to the appropriate treatment.	SDG&E and its contractors to implement measure as defined	SDG&E qualified paleontologist to confirm compliance and provide specified documentation to CPUC PM	30 days prior to construction

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE SDG&E SAN MARCOS TO ESCONDIDO TL6975 69KV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Geology, Soils, Seismicity, and Paleontological Resources (cont.)				
Paleontological Resources (cont.)	• The qualified paleontologist shall determine the significance of any fossils discovered, and shall determine the appropriate treatment for significant fossils in accordance with the SVP standards. The qualified paleontologist shall inform SDG&E of these determinations as soon as practicable. See Mitigation Measure PALEO-4 regarding significant fossil treatment. • Monitors shall prepare daily logs detailing the types of activities and soils observed, and any discoveries. The qualified paleontologist shall prepare a final monitoring and mitigation report to document the results of the monitoring effort and any curation of fossils. SDG&E shall provide the daily logs to the CPUC Project Manager upon request, and shall provide the final report to the CPUC Project Manager upon completion.			
	Mitigation Measure PALEO-4: Significant Fossil Treatment. If any find is deemed significant, as defined in the SVP standards (2010) and following the process outlined in Mitigation Measure PALEO-3, the qualified paleontologist shall salvage and prepare the fossil for permanent curation with a certified repository with retrievable storage following the SVP standards.	SDG&E, its contractors, and qualified paleontologist to implement measure as defined	CPUC mitigation monitor to confirm compliance	During construction, operation, and maintenance of the Project
Greenhouse Gas Emissions				
	No mitigation required.			
Hazards and Hazardous Materials				
Construction Hazards	**APM HAZ-1:** A Health and Safety Plan will be prepared and implemented during construction. The Health and Safety Plan will describe the anticipated hazards that construction workers may encounter while working on the Project, the safety measures that must be taken to address those hazards, and the necessary training requirements for personnel working on the Project. Safety hazards and applicable federal and state occupational standards will be identified in conjunction with the development of appropriate response actions, as well as a protocol for accident reporting. The Health and Safety Plan will also identify security and safety requirements for staging areas, storage yards, excavation areas, and any other areas of the Project where hazards may exist during construction activities. In addition, information regarding medical kits, safety equipment, and evacuation procedures will be outlined in the Health and Safety Plan. A qualified safety field representative will be present on site to observe and document adherence to the Health and Safety Plan as needed. The Health and Safety Plan will be prepared by the SDG&E construction contractor and will be available immediately prior to construction.	SDG&E and its contractors to implement measure as defined	SDG&E safety field representative to provide specified documentation. CPUC mitigation monitor to confirm compliance	Prior to and during construction
	APMs TRA-1 and **TRA-2**, described below.	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to confirm compliance	Prior to and during construction activities

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE SDG&E SAN MARCOS TO ESCONDIDO TL6975 69KV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Hazards and Hazardous Materials				
Soil Excavation and Dewatering	**Mitigation Measure HAZ-1: Soil and Dewatering Management Plan.** SDG&E and the contractor conducting soil excavation and (if needed) dewatering shall develop and implement a Soil and Dewatering Management Plan (SDMP) that describes the procedures for managing excavated soil and groundwater generated from dewatering activities. The SDMP shall include procedures for monitoring soil for possible contamination, identifying the specific stockpiling locations and measures to contain the stockpiled soil to prevent run on and run off, and materials disposal specifying how the construction contractor(s) will remove, handle, transport, and dispose of all excavated materials in a safe, appropriate, and lawful manner. The SDMP shall specify the contractor will segregate and dispose of soil with chemical concentrations above regulatory standards. Soil with chemical concentrations below regulatory standards may be reused or recycled. Soil with chemical concentrations above regulatory standards shall be disposed of in accordance with the applicable provisions of Cal. Code Regs. Title 22, Chapter 11, Article 3, Section 66261 (i.e., Class III (non-hazardous waste), Class II (non-hazardous and "designated" waste), or Class I (non-hazardous and hazardous waste)). The SDMP must identify protocols for soil testing and disposal, identify the approved disposal sites, and include written documentation that the disposal site can accept the waste. The contractor shall include procedures for the safe and legal disposal of groundwater generated from dewatering, if any. The procedures shall include water sampling and testing procedures to quantify chemical concentrations in the water, and dispose of the water in a safe and legal manner. Note that the disposal of groundwater generated from dewatering may be disposed of under the State's VOC and Fuel General Permit, depending on chemical concentrations and local sanitary sewer acceptance criteria. Contract specifications shall mandate full compliance with all applicable local, State, and federal regulations related to the identification, transportation, and disposal of hazardous materials, including those encountered in soil and groundwater. This SDMP shall be submitted to CPUC for review and approval prior to commencement of construction.	SDG&E and its contractors to implement measure as defined	CPUC to approve and CPUC mitigation monitor to inspect compliance	Prior to construction
Hydrology and Water Quality				
Soil Excavation and Dewatering	**Mitigation Measure HAZ-1: Soil and Dewatering Management Plan**, described above.	SDG&E and its contractors to implement measure as defined	CPUC to approve and CPUC mitigation monitor to inspect compliance	Prior to construction
Land Use and Planning				
	No mitigation required.			
Mineral Resources				
	No mitigation required.			

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE SDG&E SAN MARCOS TO ESCONDIDO TL6975 69KV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Noise				
Construction Noise	**APM NOI-1:** Construction activities will occur during the times established by the local ordinances, with the exception of certain activities where nighttime and weekend construction activities are necessary, including, but not limited to, construction work timeframes mandated by permit, pouring of foundations, and pulling of the conductor, which require continuous operation or must be conducted during off-peak hours per agency requirements. SDG&E will meet and confer with the applicable jurisdiction to discuss temporarily deviating from the requirements of the noise ordinance, as described in the noise variance process.	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance	During construction activities
	APM NOI-2: SDG&E will provide notice of the construction plans to all property owners within 300 feet of the Project by mail at least one week prior to the start of construction activities. The announcement will state the anticipated construction start window, anticipated completion window, and hours of operation, as well as provide a telephone contact number for receiving questions or complaints during construction. SDG&E will maintain functional mufflers and/or silencers on all equipment to minimize noise levels as well as evaluate the potential use of portable noise barriers.	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to confirm compliance	One week prior to construction activities
	Mitigation Measure NOI-1: Construction Noise Reduction and Mitigation Plan. To reduce daytime noise impacts due to Project construction near sensitive receptors, SDG&E shall develop and implement a Construction Noise Reduction and Mitigation Plan (Plan). The Plan shall be submitted to the CPUC at least 14 days prior to the commencement of construction activities for review and approval. The Plan shall include a requirement for SDG&E to administer a noise monitoring program when construction activities are conducted within 100 feet of sensitive receptor locations to ensure that the provisions of the Plan, including those identified below, are effective in reducing construction noise levels at sensitive receptor locations to 75 dBA L_{eq} or less. The Plan shall present specific measures that identify how the construction noise limit of 75 dBA as an hourly L_{eq} at nearby sensitive receptor locations will be adhered to, how potential exceedances will be documented and corrected, and how impacts on sensitive receptors from exceedances that cannot be corrected or avoided will be mitigated, including but not limited to the following measures: ***Noise Reduction*** The following measures shall apply to construction activities within 100 feet of sensitive receptor locations: • Impact tools (e.g., jack hammers, pavement breakers, and rock drills) shall be hydraulically or electrically powered where feasible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dB. External jackets on the tools themselves shall be used where feasible; this could achieve a reduction of 5 dB. Quieter procedures, such as use of drills rather than impact tools, shall be used whenever feasible.	SDG&E and its contractors to implement measure as defined	CPUC PM to review and approve. CPUC mitigation monitor to inspect compliance	14 days prior to construction activities

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE SDG&E SAN MARCOS TO ESCONDIDO TL6975 69KV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Noise (cont.)				
Construction Noise *(cont.)*	• When construction activities that could potentially exceed 75 dBA are conducted, construction equipment and trucks shall be equipped with enhanced noise control measures (where feasible and reasonably available). Enhanced noise control measures shall be identified in the Plan and could include, but are not limited to, improved exhaust mufflers and intake silencers, engine enclosures, noise shields or shrouds, etc. • When construction activities that could potentially exceed 75 dBA are conducted, noise barriers such as noise shields, barriers, blankets, or enclosures shall be used, where feasible, adjacent to or around noisy construction equipment. Noise control shields/barriers/blankets shall be made featuring weather-protected, sound-absorptive material on the construction-activity side of the noise shield/barrier/blanket. The noise barrier must be installed in a location that completely blocks line-of-sight between the construction noise source (e.g., generator, backhoe) and sensitive receptors located within 100 feet of the noise source. • Stationary construction noise sources shall be located as far from adjacent receptors as possible. They shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or other measures to the extent this does not interfere with construction. ***Notification and Correction*** • Distribute to the potentially affected residences within 100 feet of Project construction an informational pamphlet, and post signs at conspicuous publicly accessible places at each construction site, that indicate the hours of construction work and applicable noise level limits and provide a "hotline" telephone number, which shall be attended during active construction working hours and record messages outside of working hours, for use by the public to register complaints. SDG&E shall identify whether posted hours and/or the 75 dBA L_{eq} threshold have been exceeded, take action to keep to posted hours and/or reduce noise levels below 75 dBA, and notify CPUC within 24 hours. With regard to any noise complaints received citing project construction, SDG&E shall ensure that all complaints received during or outside of working hours shall be logged noting date, time, complainant's name, nature of complaint, and any corrective action taken, and shall submit such information to the CPUC Project Manager within 48 hours of receiving the complaint. • For construction activities that involve a helicopter (e.g., sock line installation, movement of materials), at least one week prior to the start of such activity, additional notice shall be issued or delivered [by a means which provides proof of delivery] by SDG&E and/or its contractor to sensitive receptors within 300 feet of planned helicopter activity. This notice shall include the estimated date and time of the proposed work, as well as the estimated duration of the work, both in terms of overall duration per segment and duration per pole location. ***Relocation*** • The Plan shall provide for temporary relocation of residents in the event that the Plan or the noise monitoring program identifies the potential for construction noise to exceed 75 dBA Leq within 100 feet of such receptors.			

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE SDG&E SAN MARCOS TO ESCONDIDO TL6975 69KV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Noise (cont.)				
Blasting	**Mitigation Measure NOI-2: Blasting Plan.** Prior to conducting any blasting activities, SDG&E shall develop a Blasting Plan in coordination with an acoustical analyst, geotechnical engineer, and construction contractor. The Plan shall be submitted to the CPUC at least 14 days prior to the commencement of construction activities for review and approval to ensure that all components of this measure have been included and all required reviews, signatures, and permits obtained. The plan shall include a current/valid copy of the Explosives Permit issued by the San Diego County Sheriff's Office, as well as documentation that all local blasting requirements have been adhered to. The Blasting Plan shall include at a minimum the following measures: • Methods of matting or covering of blast area to prevent excessive air blast pressure. • Description of air blast monitoring program. • If necessary, SDG&E and/or its contractors shall use portable noise barriers between the source and affected occupied properties to reduce excessive noise impacts. • Blasting shall be limited to between the hours of 7:00 a.m. and 7:00 p.m. daily. • Blasting notification procedures, lead times, and list of those notified. Public notification to potentially affected sensitive receptors describing the expected extent and duration of the blasting. • Verification that explosives are not being proposed for use within 300 feet of the boundary of any occupied parcels zoned for residential. In the event that blasting activities are proposed within this distance, SDG&E will provide verification to the CPUC that residences affected by noise are notified of the date and time of blasting and offered temporary relocation assistance.	SDG&E and its contractors to implement measure as defined	CPUC PM to review and approve. CPUC mitigation monitor to inspect compliance	14 days prior to construction activities
Vibrations	**Mitigation Measure NOI-3: Vibration Reduction Plan.** Prior to any blasting construction, the applicant shall develop a Vibration Reduction Plan in coordination with an acoustical analyst, geotechnical engineer, and construction contractor, and submit the Plan to the CPUC for approval at least 14 days prior to any proposed blasting. The Vibration Reduction Plan shall include vibration reduction measures to ensure that surrounding buildings will be exposed to less than 0.2 PPV to prevent building damage. At a minimum, the plan shall consider the following measures: • Evidence of licensing, experience, and qualifications of blasting contractors. • The Plan shall establish a vibration limit of 0.2 PPV at nearby structures in order to protect structures from blasting activities and identify specific locations for monitoring. A pre-blast survey shall be conducted of any potentially affected structures. • The Plan shall identify the appropriate size of the explosive charge to ensure that a vibration level of 0.2 PPV is not exceeded at nearby structures. • Impacted property owners shall be notified at least 48 hours prior to the visual inspections.	SDG&E and its contractors to implement measure as defined	CPUC PM to review and approve. CPUC mitigation monitor to inspect compliance	14 days prior to any blasting activities

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE SDG&E SAN MARCOS TO ESCONDIDO TL6975 69KV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Noise (cont.)				
Vibrations *(cont.)*	• Post-construction inspection of structures shall be performed to identify (and repair if necessary) any damage from blasting vibrations. Any damage shall be documented by photograph, video, etc. This documentation shall be reviewed with the individual property owners and SDG&E shall arrange and fund any needed repairs. Documentation of these efforts shall be provided to the CPUC.			
Population and Housing				
	No mitigation required.			
Public Services				
Fire Hazards	**Mitigation Measure WIL-1: Fire Safety,** described in *Wildfire* below.	SDG&E and its contractors to implement measure as defined	CPUC PM to review and approve. CPUC mitigation monitor to inspect compliance	60 days prior to construction activities
Recreation				
Temporary Recreation Effects	**APM PS-1:** SDG&E will provide the public with advance notification of construction activities. Concerns related to dust, noise, and access restrictions with construction activities will be addressed within this notification.	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to confirm compliance	Prior to and during construction
	APM PS-2: All construction activities will be coordinated with the property owner or authorized agent for each affected park, trail, or recreational facility prior to construction in these areas.	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance	Prior to construction
	APM PS-3: As needed, signs will be posted directing vehicles to alternative park access and parking, if available, in the event construction temporarily affects parking near trailheads.	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to confirm compliance	Prior to and during construction
	APM PS-4: All parks, trails, and recreational facilities that are physically impacted during construction activities and are not directly associated with the new permanent facilities, will be returned to an approximate pre-construction state, while still allowing for SDG&E to safely operate and maintain the facilities, following the completion of the Project. SDG&E will replace or repair any damaged or removed public equipment, facilities, and infrastructure in a timely manner.	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to confirm compliance	Following construction
	No CPUC-recommend mitigation measures apply.			

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE SDG&E SAN MARCOS TO ESCONDIDO TL6975 69KV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Transportation and Traffic				
Road Closures and Transit Services	**APM TRA-1:** If construction requires lane closures, traffic delays, or other encroachment of construction activities within public travelways, the Applicant will adhere to local traffic control regulations and establish a traffic control plan as needed to comply with local ordinances. Traffic control plans will describe signage, flaggers, or other controls to be used to regulate traffic where necessary and to maintain a safe transportation corridor during construction.	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to confirm compliance	Prior to and during construction activities
	APM TRA-2: The Applicant will coordinate with local emergency response agencies during construction within existing public roadways to allow safe passage and access by emergency vehicles and equipment.	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to confirm compliance	During construction
	Mitigation Measure TRA-1: Coordination with North County Transit District (NCTD). SDG&E and its contractor shall: • Minimize interruptions to transit services and facilities. In the event that a temporary removal or relocation of a bus stop is necessary, coordination with NCTD shall occur to ensure that any such action is consistent with the transit operator's needs. • The applicant shall coordinate with NCTD at least 30 days in advance of right-of-way construction work to ensure that any such construction activities are consistent with maintaining the transit services' operations.	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance	30 days prior to construction activities
Tribal Cultural Resources				
Archaeological and Historical Resources	**Mitigation Measure CUL-1 through CUL-4,** described in *Cultural Resources*, above.			
Utilities and Service Systems				
Construction and Demolition Debris	**Mitigation Measure US-1: Construction and Demolition Debris Recycling Ordinances.** SDG&E and its contractors shall recycle and/or reuse 90 percent of inert materials and 70 percent of all other materials, as well as 100 percent of trees, stumps, rocks, and other vegetation. In order to document and track such diversions, the applicant shall provide the following: • Prior to construction, the Applicant shall provide a preliminary Construction and Demolition Debris Register (Preliminary Debris Register) that lists all anticipated construction and demolition solid waste streams (by weight) along with how the project will dispose/divert each waste. The Preliminary Debris Register shall also list the anticipated destination(s) (i.e., location or facility) for each waste stream. The Preliminary Register shall document how the project shall achieve the minimum waste diversion percentages. • During construction activities, the Applicant shall keep records (e.g., a log) on site documenting the disposal and/or diversion of all construction and demolition debris that leaves the project site. The Applicant shall also keep copies of all corresponding receipts or similar documentation from solid waste facility, recycling center, green waste facility, or other permitted facility.	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance	Prior, during, and following construction

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE SDG&E SAN MARCOS TO ESCONDIDO TL6975 69KV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Utilities and Service Systems (cont.)				
Construction and Demolition Debris *(cont.)*	• During construction activities, the Applicant shall provide updates for solid waste diversion to the CPUC as part of the Quarterly Project Status Reports required by the Mitigation Monitoring, Reporting, and Compliance Program (MMRCP). • Following the completion of construction activities, the Applicant shall provide a Final Debris Register that documents the final construction and demolition debris totals, destinations, and diversion percentages. The Final Debris Register shall document the Project's final compliance with the minimum diversion percentages.			
Wildfire				
Wildfire and Fire Hazards	**Mitigation Measure WIL-1: Fire Safety.** SDG&E and/or its contractors shall prepare and implement a Final Project-specific Construction Fire Prevention Plan (CFPP) to ensure the health and safety of construction workers and the public from fire-related hazards. The Final Project-Specific Construction Fire Prevention Plan shall include the provisions in the TL 6975 Construction Fire Prevention Plan provided in Appendix 4.8-B of the Proponent's Environmental Assessment (SDG&E, 2017b), as well as the requirements listed below. Prior to construction, SDG&E shall contact and consult with the San Diego Unit of CAL FIRE, the San Diego County Fire Authority, and the fire departments of the cities of Carlsbad, Escondido, San Marcos, and Vista to determine the appropriate amounts of fire equipment to be carried on the vehicles and appropriate prevention measures to be taken. SDG&E shall submit verification of its consultation with the appropriate fire departments to the CPUC Project Manager. SDG&E shall submit the CFPP to the CPUC Project Manager for approval 60 days prior to commencement of construction activities and shall make the approved Final CFPP available to all construction crew members prior to construction of the Project. The Final CFPP shall list fire safety measures including fire prevention and extinguishment procedures, as well as specific emergency response and evacuation measures that would be followed during emergency situations; examples are listed below. The Final CFPP also shall provide fire-related rules for smoking, storage and parking areas, usage of spark arrestors on construction equipment, and fire-suppression tools and equipment. The Final CFPP shall include or require, but not be limited to, the following: • SDG&E and/or its contractors shall have water tanks, water trucks, or portable water backpacks (where space or access for a water truck or water tank is limited) sited/available in the study area for fire protection. • All construction vehicles shall have fire suppression equipment. • SDG&E shall ensure that all construction workers receive training on the proper use of fire-fighting equipment and procedures to be followed in the event of a fire. • As construction may occur simultaneously at several locations, each construction site shall be equipped with fire extinguishers and fire-fighting equipment sufficient to extinguish small fires. • SDG&E shall instruct construction personnel to park vehicles within roads, road shoulders, graveled areas, and/or cleared areas (i.e., away from dry vegetation) wherever such surfaces are present at the construction site.	SDG&E and its contractors to implement measure as defined	CPUC PM to review and approve. CPUC mitigation monitor to inspect compliance	60 days prior to construction activities

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE SDG&E SAN MARCOS TO ESCONDIDO TL6975 69KV PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Wildfire (cont.)				
Wildfire and Fire Hazards *(cont.)*	• SDG&E and its contractor shall cease work during Red Flag Warning events in areas where vegetation would be susceptible to accidental ignition by Project activities (such as welding or use of equipment that could create a spark). • At each construction site, after construction has been completed for the day, the project contractor and/or the SDG&E Contract Administrator will perform visual inspections to ensure that all ignition risks are minimized or eliminated before leaving the work site. • Successful implementation of Mitigation Measure WIL-1: Fire Safety would be demonstrated by the development of a Final CFPP in consultation with local fire authorities which documented and submitted to the CPUC for final approval. Additionally, successful implementation of Mitigation Measure WIL-1 would require that SDG&E and its contractor comply with all components of the Final CFPP, that ignition from project construction activities is promptly reported to the fire department(s) with jurisdiction, and that when it is safe to do so, any project-caused ignition is suppressed immediately.			

Appendix A
Route Mapbook

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200
Feet

N

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SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-1
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200
Feet

N

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SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-2
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200
Feet

N

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SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-3
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200
Feet

N

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SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-4
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200
Feet

N

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SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-5
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200

Feet

N

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SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-6
Project Route Map

ESA

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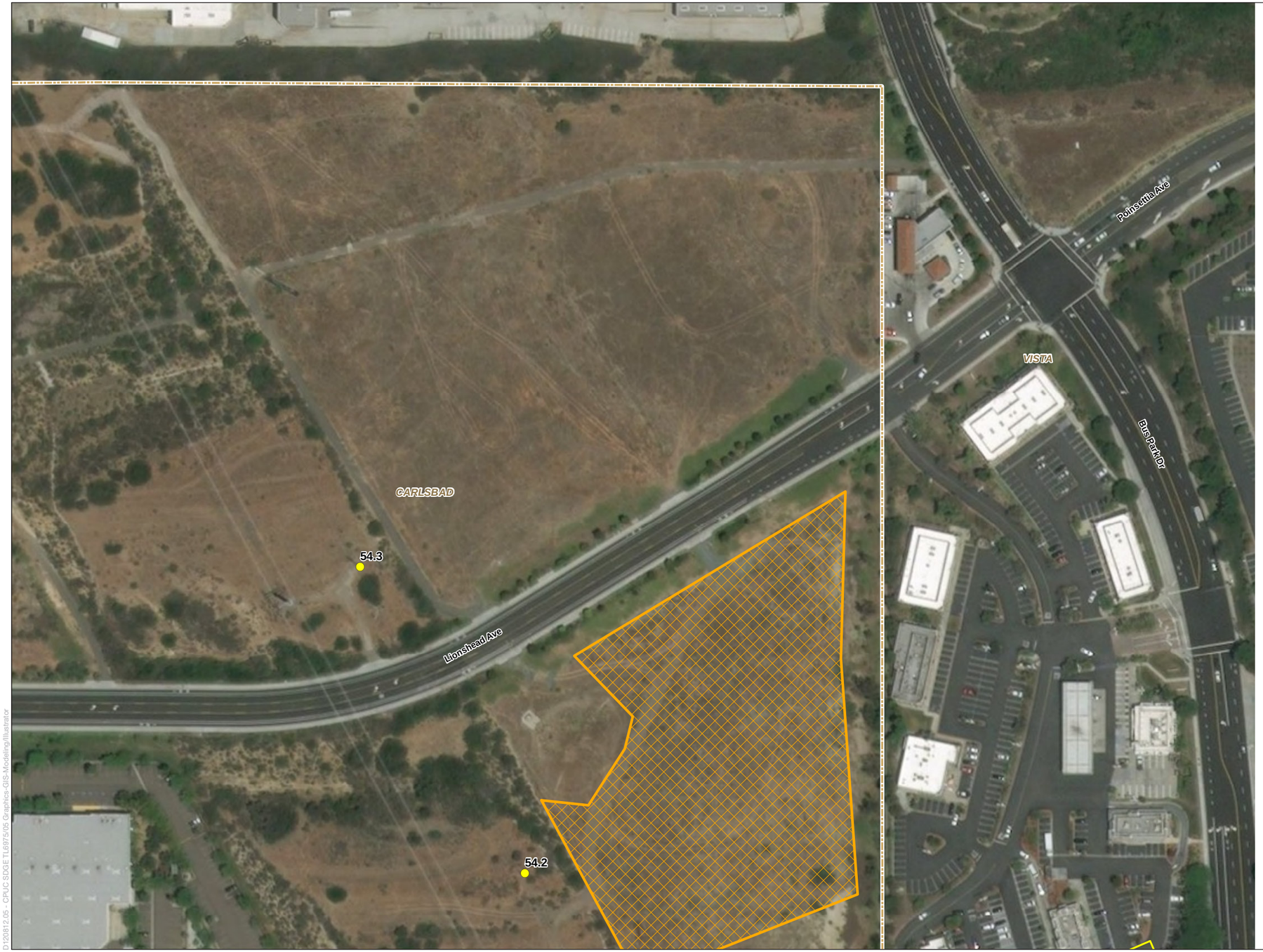
SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-7
Project Route Map

ESA



Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200
Feet

N

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SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-8
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200
Feet

N

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SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-9
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200
Feet

N

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SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-10
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200
Feet

N

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SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-11
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200
Feet

N

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SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-12
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200
Feet

N

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SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-13
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200
Feet

N

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SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-14
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200
Feet

N

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SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-15
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200
Feet

N

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SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-16
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200
Feet

N

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SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-17
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200
Feet

N

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SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-18
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200
Feet

N

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SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-19
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200
Feet

N

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SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-20
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200
Feet

N

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SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-21
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200
Feet

N

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SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-22
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200
Feet

N

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SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-23
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200
Feet

N

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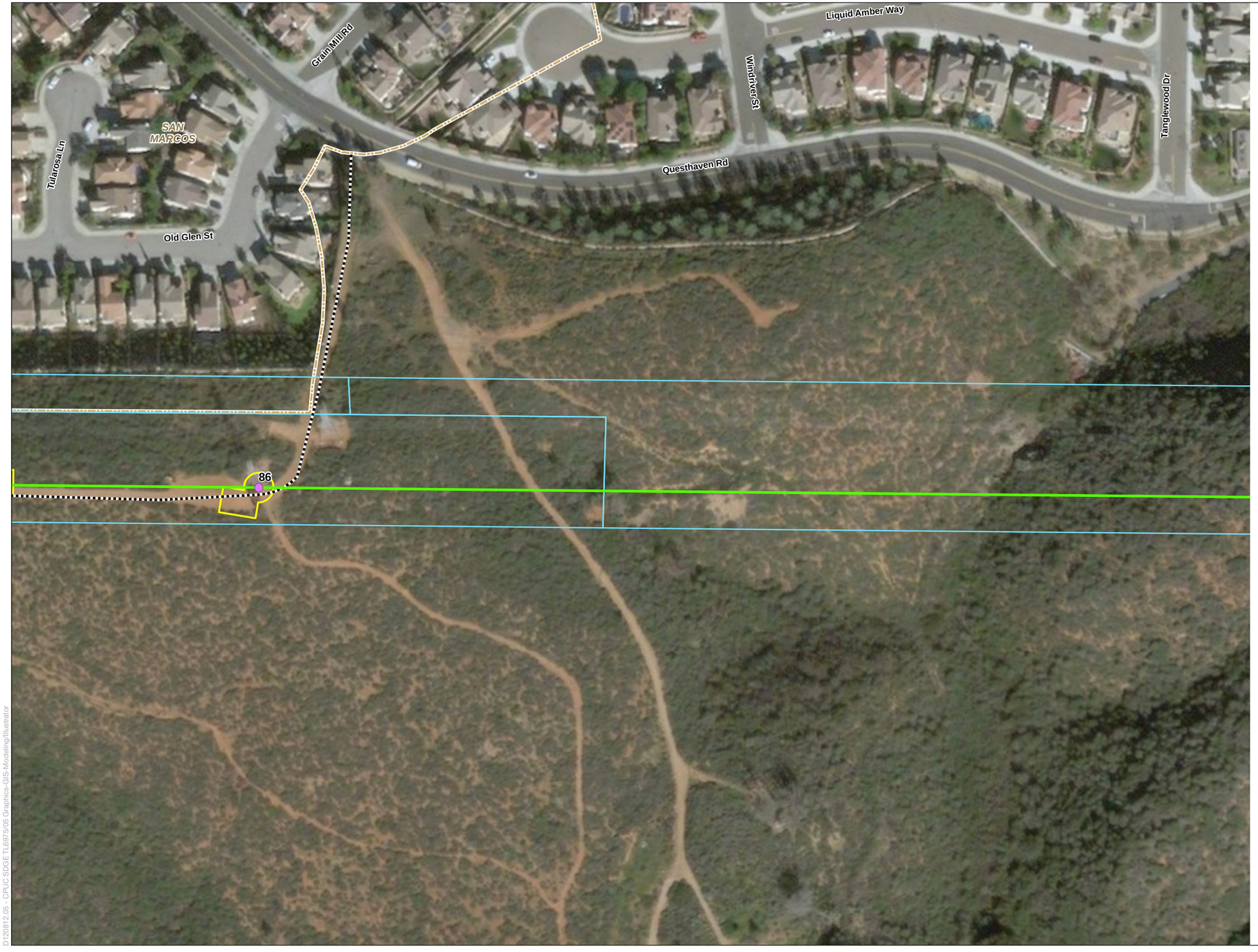
SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-24
Project Route Map

ESA



Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200

Feet

N

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SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-25
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200
Feet

N

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SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-26
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200

Feet

N

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SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-27
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200

Feet

N

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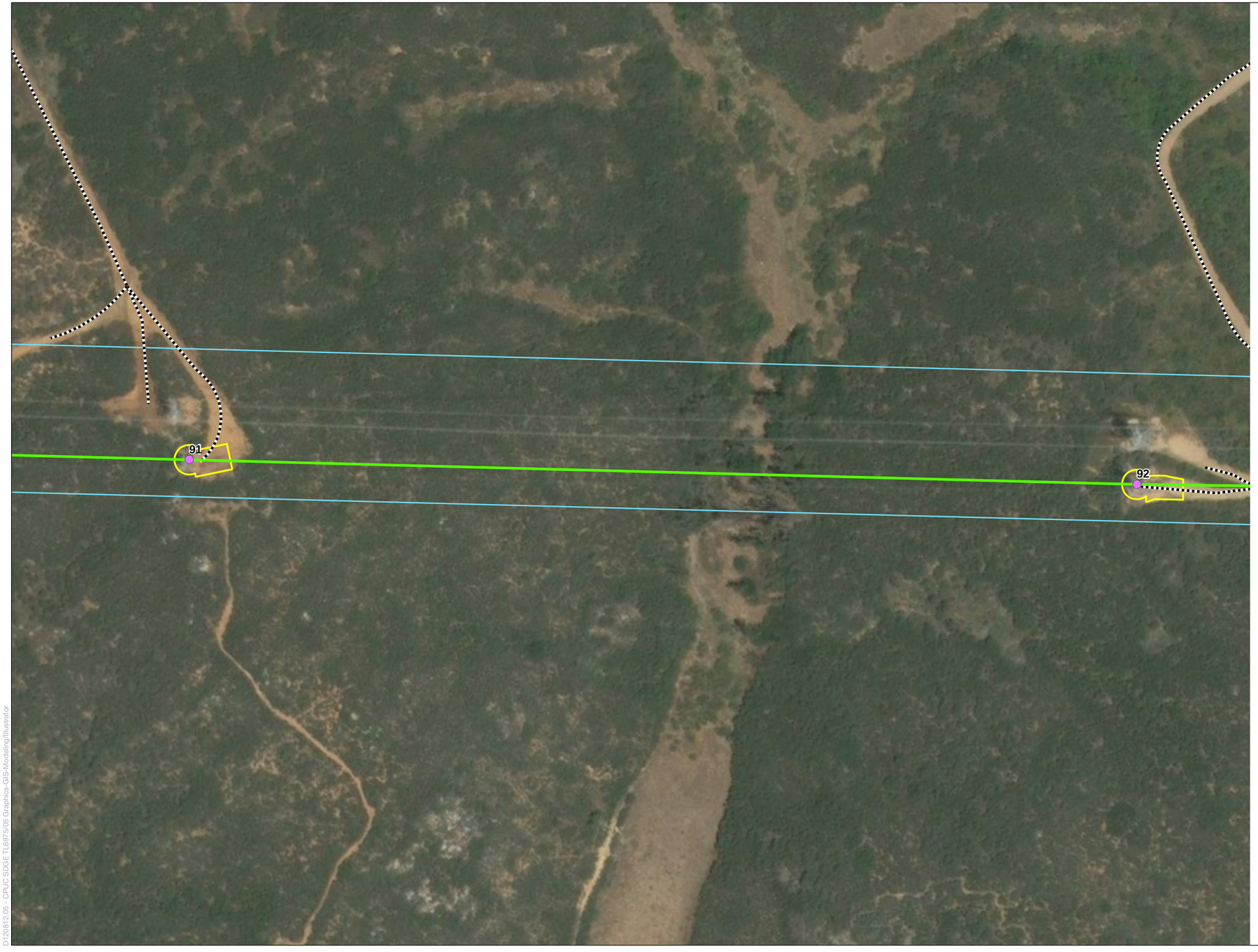
SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-28
Project Route Map

ESA



Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200

Feet

N

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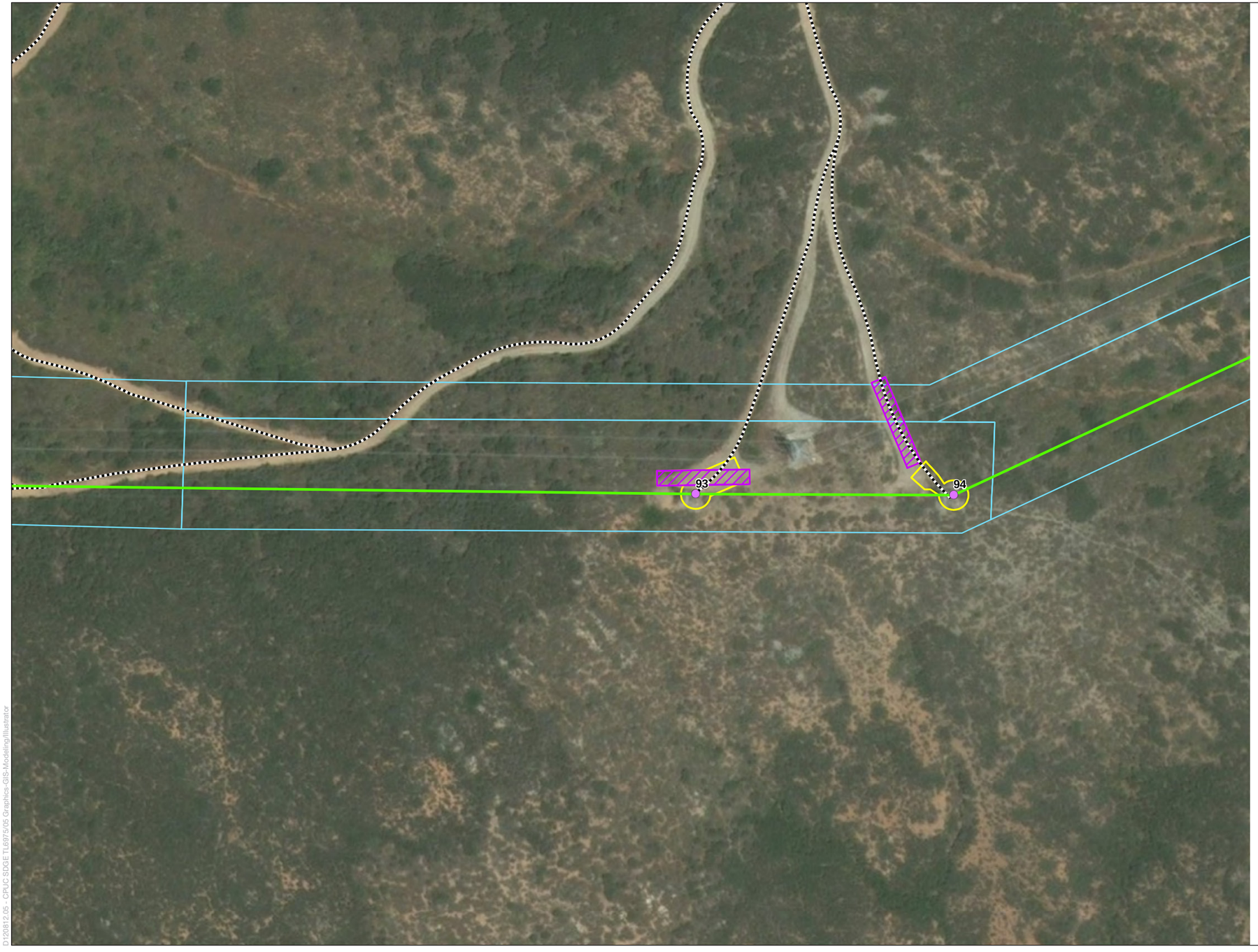
SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-29
Project Route Map

ESA



Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200

Feet

N

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SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-30
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200

Feet

N

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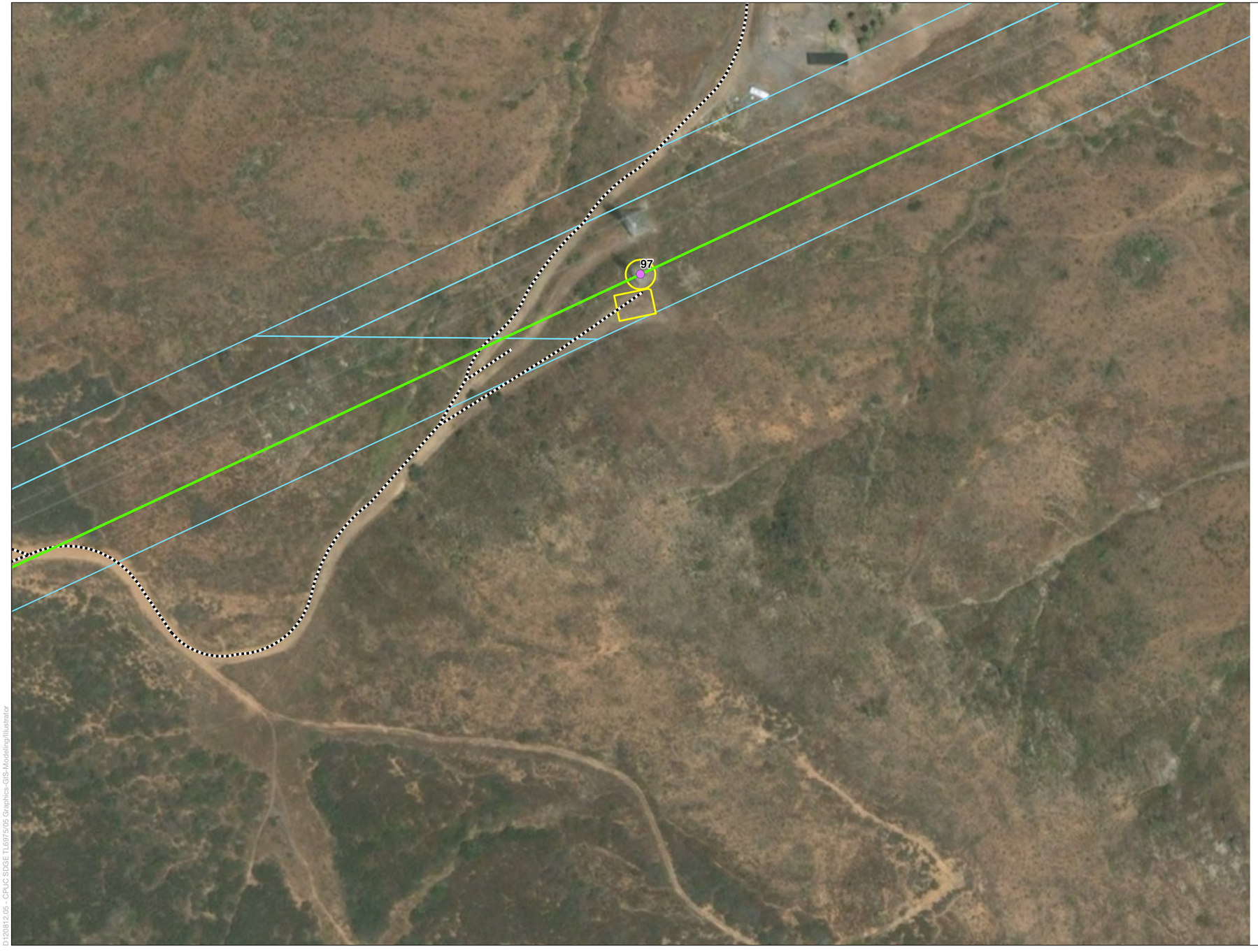
SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-31
Project Route Map

ESA



Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200

Feet

N

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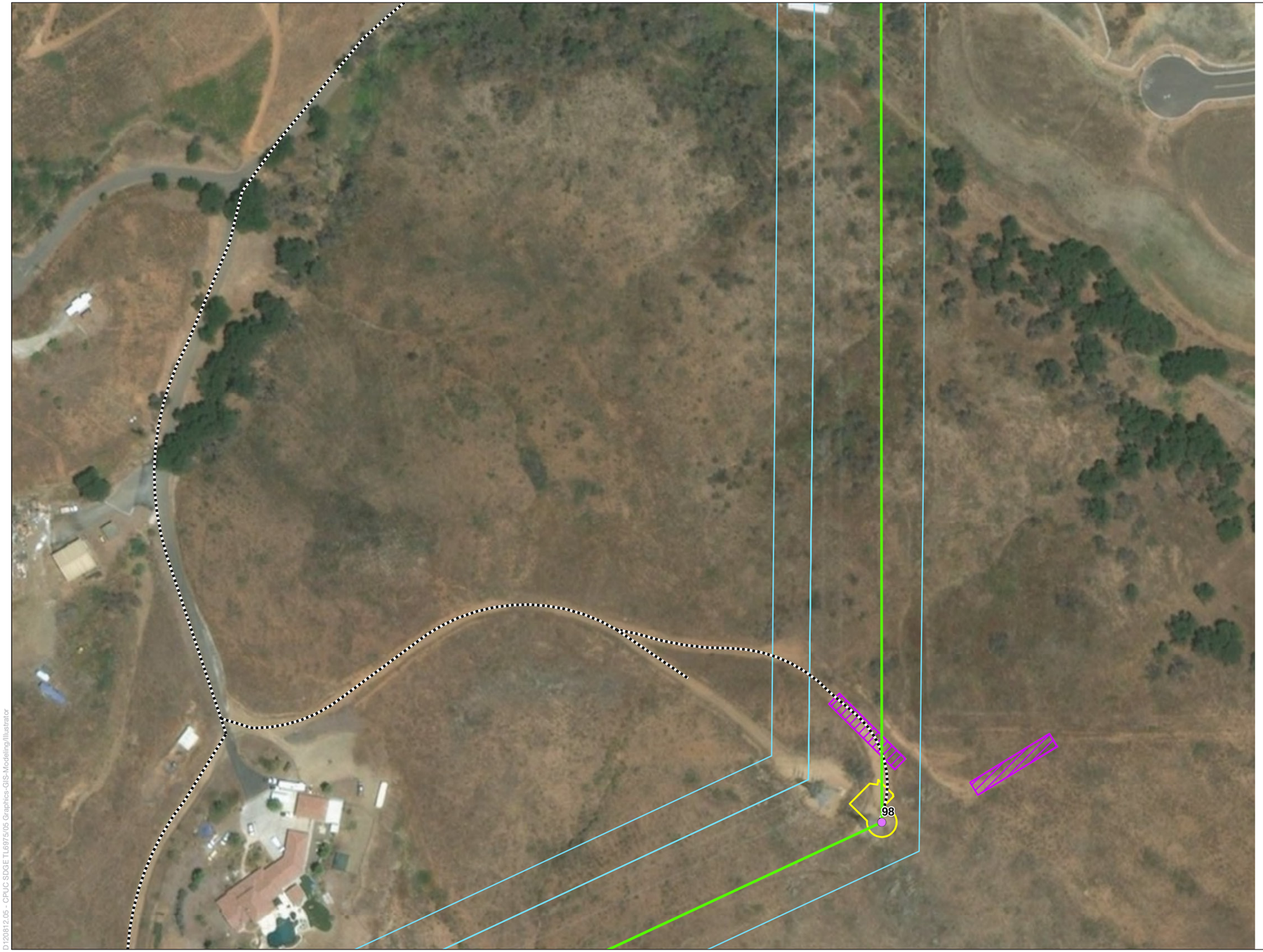
SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-32
Project Route Map

ESA



Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200

Feet

N

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SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-33
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200

Feet

N

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TL 6975 San Marcos to Escondido Project

Figure A-34
Project Route Map

ESA

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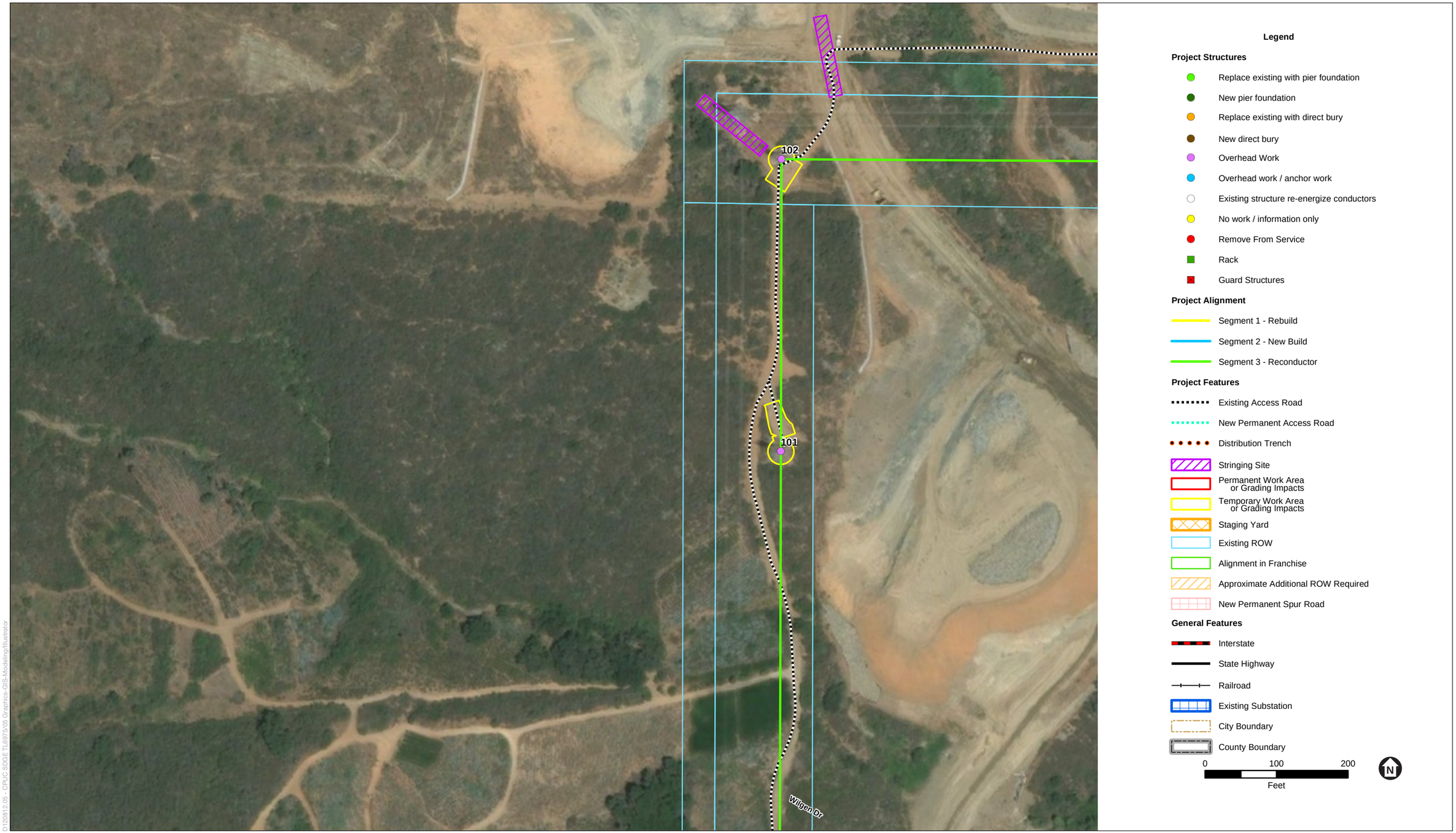
SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-35
Project Route Map

ESA



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SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-36
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200

Feet

N

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SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-37
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200

Feet

N

D:\120812.05 - CPUC SDGE TL6975\05 Graphics-GIS-Modeling\Illustrator

SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-38
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200

Feet

N

D:\120812.05 - CPUC SDGE TL6975\05 Graphics-GIS-Modeling\Illustrator

SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-39
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200
Feet

N

D120812.05 - CPUC SDGE TL6975/05 Graphics-GIS-Modeling/Illustrator

SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-40
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200

Feet

N

D:\120812.05 - CPUC SDGE TL6975\05 Graphics-GIS-Modeling\Illustrator

SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-41
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200
Feet

N

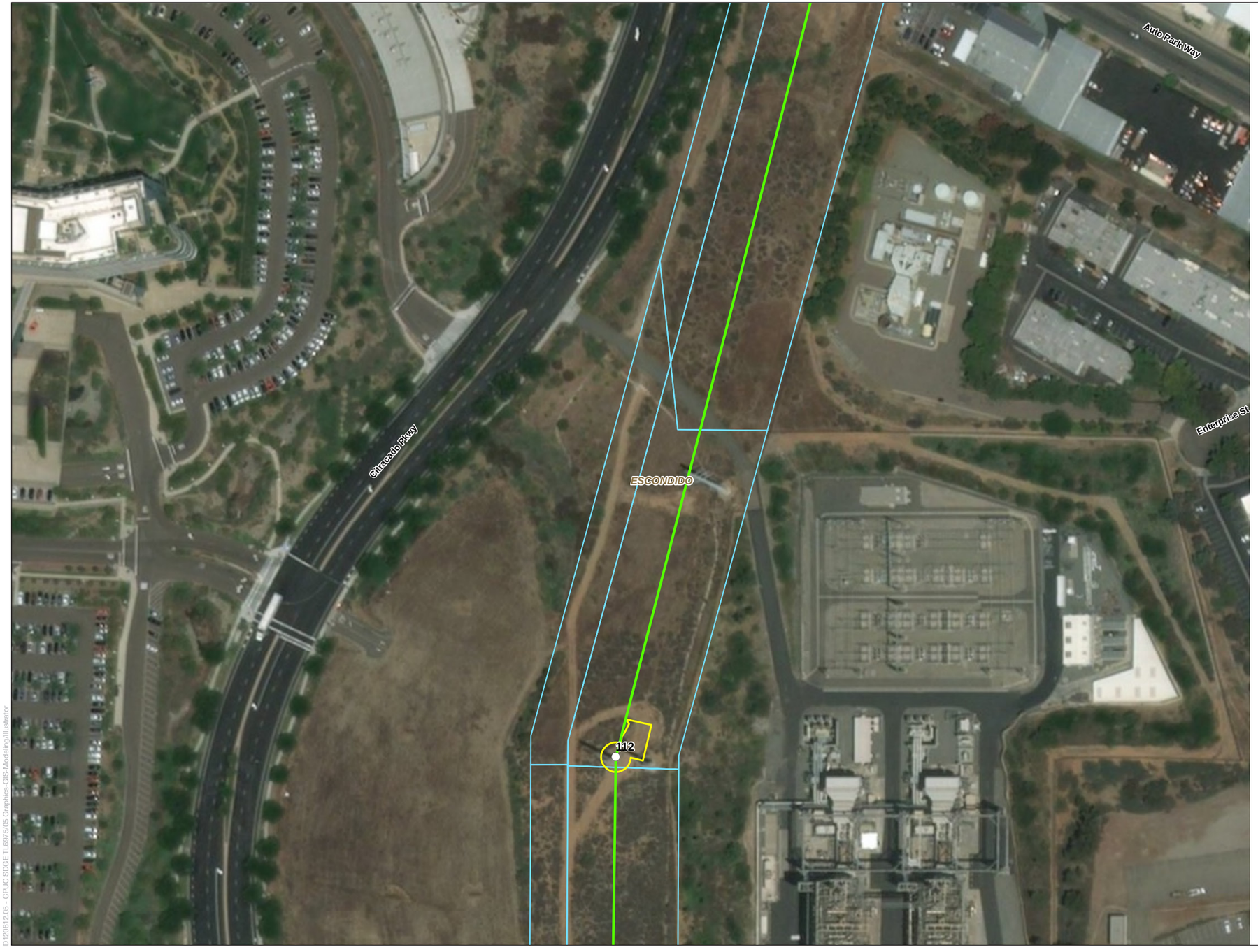
D:\120812.05 - CPUC SDGE TL6975\05 Graphics-GIS-Modeling\Illustrator

SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-42
Project Route Map

ESA



Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200
Feet

N

D:\120812.05 - CPUC SDGE TL6975\05 Graphics-GIS-Modeling\Illustrator

SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-43
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200

Feet

N

D:\120812.05 - CPUC SDGE TL6975\05 Graphics-GIS-Modeling\Illustrator

SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-44
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200
Feet

N

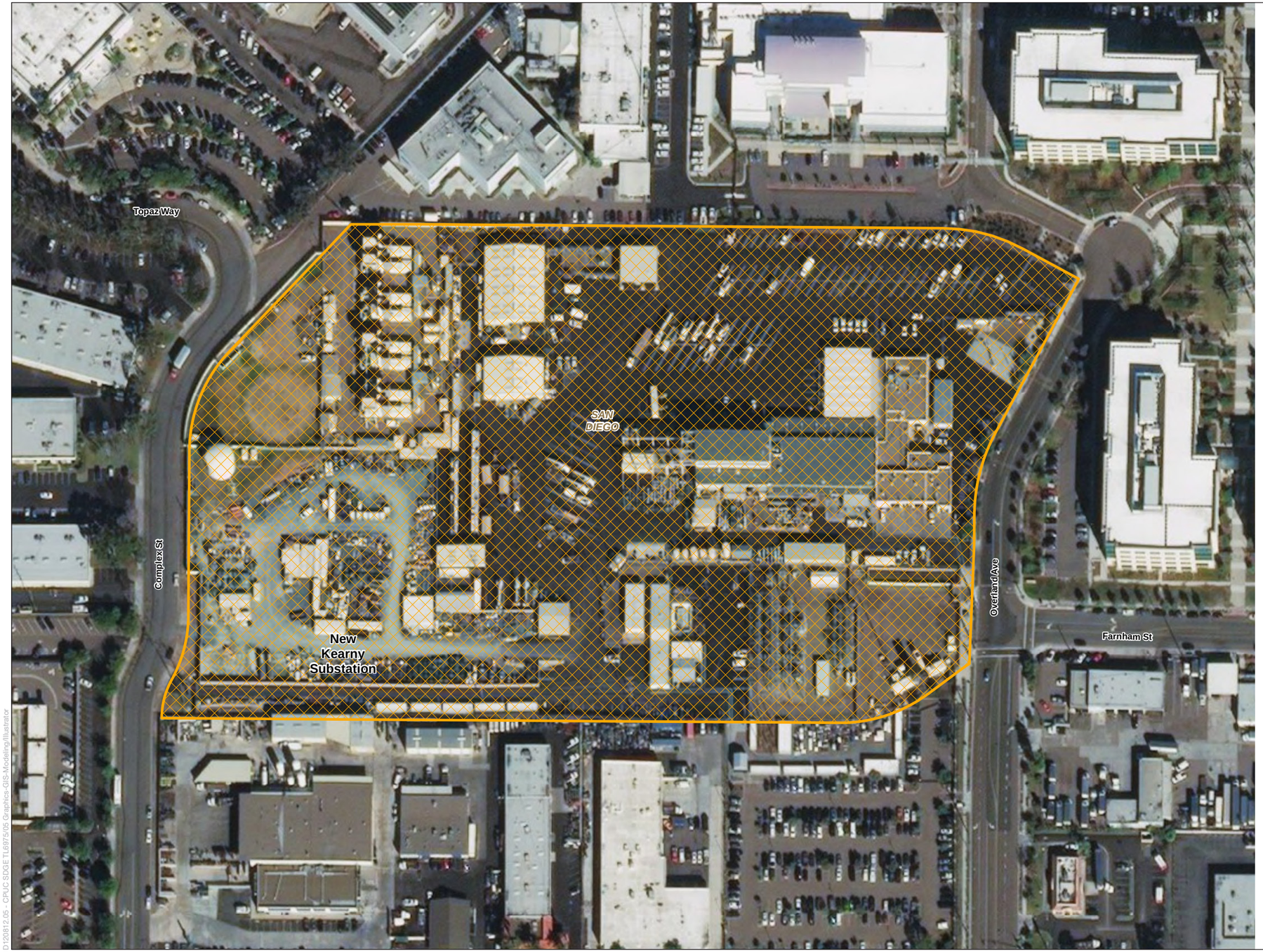
D120812.05 - CPUC SDGE TL6975/05 Graphics-GIS-Modeling/Illustrator

SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-45
Project Route Map

ESA



Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200
Feet

N

D120812.05 - CPUC SDGE TL6975/05 Graphics-GIS-Modeling/Illustrator

SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-46
Project Route Map

ESA

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200
Feet

N

D120812.05 - CPUC SDGETL6975/05 Graphics-GIS-Modeling/Illustrator

SOURCE: SDGE

TL 6975 San Marcos to Escondido Project

Figure A-47
Project Route Map

ESA

Appendix B
Mailing List

TABLE B-1
PUBLIC LIBRARIES

Name	Address
San Marcos Library	2 Civic Center Dr., San Marcos, CA 92069
Escondido Public Library	239 S Kalmia St., Escondido, CA 92025
Carlsbad City Library	1775 Dove Ln., Carlsbad, CA 92011

TABLE B-2
AGENCIES AND APPLICANT

Contact Name and Title	Agency/Organization	Address
Lead Agency		
Joyce Steingass, Project Manager	California Public Utilities Commission	505 Van Ness Avenue San Francisco, CA 94102
Applicant		
Tim Lyons	San Diego Gas & Electric, Regulatory Affairs	8330 Century Park Court San Diego, CA 92123
Robert Jr. Fletcher, Project Manager	San Diego Gas & Electric	8335 Century Park Court San Diego, CA 92123
William Yee	San Diego Gas & Electric	8335 Century Park Court San Diego, CA 92123
Federal Agencies		
Dan Swensen	U.S Army Corps of Engineers	915 Wilshire Blvd., Ste. 1101 Los Angeles, CA 90017
Karin Cleary-Rose	U.S Fish and Wildlife Service	2177 Salk Avenue, Ste. 250 Carlsbad, CA 92008
Bill Sapp, Operations Manager	Federal Aviation Administration	8525 Gibbs Drive Suite 120 San Diego, CA 92123
State Agencies		
Ed Pert, Regional Manager	California Department of Fish and Wildlife (South Coast Region- Region 5)	3883 Ruffin Road San Diego, CA 92123
Vanessa De La Rosa, Transportation Planner	California Department of Transportation (District 11)	4050 Taylor St. San Diego, CA 92110
Richard Corey, Executive Officer	California Air Resources Board	P.O Box 2815 Sacramento, CA 95812
Christine Root cc: Chris Davis	California Energy Commission	1516 9th Street Sacramento, CA 95814
Tom Howard	State Water Resources Control Board	1001 "I" Street Sacramento, CA 95814
	State Clearinghouse	1400 Tenth Street Sacramento, CA 95814
Local Agencies		
Judy Ritter, Mayor	City of Vista	200 Civic Center Drive Vista, CA 920084
Kathy Valdez, City Clerk	City of Vista	200 Civic Center Drive Vista, CA 920084
John Conley, Director of Community Development/Engineering	City of Vista	200 Civic Center Drive Vista, CA 92084
Andrea McCullough, Communications Officer	City of Vista	200 Civic Center Drive Vista, CA 92084
Director, Public Works Department	City of Vista	1165 East Taylor St. Vista, CA 92084

TABLE B-2 (CONTINUED)
AGENCIES AND APPLICANT

Contact Name and Title	Agency/Organization	Address
Local Agency (cont.)		
Patrick Johnson, City Manager	City of Vista	200 Civic Center Drive Vista, CA 92084
Rebecca Jones, Mayor	City of San Marcos	1 Civic Center Drive San Marcos, CA 92069
Phill Scollick, City Clerk	City of San Marcos	1 Civic Center Drive San Marcos, CA 92069
Susan Vandrew Rodriguez	City of San Marcos	1 Civic Center Drive San Marcos, CA 92069
Karen Brindley, Planning Division Manager	City of San Marcos	1 Civic Center Drive San Marcos, CA 92069
Dahvia Lynch, Development Services Director	City of San Marcos	1 Civic Center Drive San Marcos, CA 92069
Matt Little, Director of Public Works	City of San Marcos	201 Mata Way San Marcos, CA 92069
Jim Chafe, Deputy Public Works Director	City of San Marcos	201 Mata Way San Marcos, CA 92069
Jack Griffin, City Manager	City of San Marcos	1 Civic Center Drive San Marcos, CA 92069
Paul McNamara, Mayor	City of Escondido	201 North Broadway Escondido, CA 92026
Bill Martin, Director of Community Development	City of Escondido	201 North Broadway Escondido, CA 92026
Julie Procopio, Director of Engineering Services	City of Escondido	201 North Broadway Escondido, CA 92026
Joseph Goulart, Interim Director of Public Works	City of Escondido	201 North Broadway Escondido, CA 92026
Jeffrey R. Epp, City Manager	City of Escondido	201 North Broadway Escondido, CA 92026
Eva Heter, Interim City Clerk	City of Escondido	201 North Broadway Escondido, CA 92026
Matt Hall, Mayor	City of Carlsbad	1200 Carlsbad Village Drive Carlsbad, CA 92008
Barbra Engleson, City Clerk	City of Carlsbad	1200 Carlsbad Village Drive Carlsbad, CA 92008
Scott Chadwick City Manager	City of Carlsbad	1200 Carlsbad Village Drive Carlsbad, CA 92008
David de Cordova, Principal Planner	City of Carlsbad	1635 Faraday Ave Carlsbad, CA 92008
Teri Delcamp, Principal Planner	City of Carlsbad	1635 Faraday Ave Carlsbad, CA 92009
Paz Gomez, Director of Public Works	City of Carlsbad	1200 Carlsbad Village Drive Carlsbad, CA 92008
Kevin L. Faulconer, Mayor	City of San Diego	202 C Street, 11th floor San Diego, CA 92101
Elizabeth Maland, City Clerk	City of San Diego	202 C Street, 11th floor San Diego, CA 92101
Elyse Lowe, Director of Development Services	City of San Diego	202 C Street, 11th floor San Diego, CA 92101
Gregory P. Hopkins, P.L.S, Deputy Director of Engineering Division	City of San Diego	202 C Street, 11th floor San Diego, CA 92101

TABLE B-2 (CONTINUED)
AGENCIES AND APPLICANT

Contact Name and Title	Agency/Organization	Address
Local Agency (cont.)		
Gary Geiler, Deputy Director Land Development Review Division	City of San Diego	202 C Street, 11th floor San Diego, CA 92101
Bill Horn, County Supervisor (District 5)	San Diego County	5510 Overland Avenue Suite 310 San Diego, CA 92123
Mark Wardlaw, Director of Planning and Development Services	San Diego County	5510 Overland Avenue Suite 310 San Diego, CA 92123
Mark Slovick, Deputy Chief	San Diego County	5510 Overland Avenue Suite 310 San Diego, CA 92123
Sharon Ippolito	San Diego County	5511 Overland Avenue Suite 310 San Diego, CA 92123
Kathy Keehan	San Diego Air Pollution Control District	10124 Old Grove Road San Diego, CA 92131
David Gibson, Executive Officer	San Diego Regional Water Quality Control Board	2375 Northside Dr. San Diego, CA 92108
Elise Rothschild	San Diego Department of Environmental Health	P.O Box 129261 San Diego, CA 92112-9261

TABLE B-3
ORGANIZATIONS

Contact Name and Title	Organization	Address
Cami Mojado	San Luis Rey Band of Mission Indians	1889 Sunset Drive Vista, CA 92084
Clinton Linton	Santa Ysabel Band of the Iipay Nation	P.O. Box 507 Santa Ysabel, CA 92070
Destiny Colocho	Rincon Band of Luiseño Indians	1 West Tribal Road Valley Center, CA 92082
Bret Schanzenbach, CEO	Vista Chamber of Commerce	127 Main Street Vista, CA 92084
Ted Owen, President	Carlsbad Chamber of Commerce	5934 Priestly Drive Carlsbad, CA 92008
Rorie Johnston, CEO	Escondido Chamber of Commerce	720 North Broadway Escondido, CA 92025
Rick Rungaitis, President	San Marcos Chamber of Commerce	904 West San Marcos Boulevard San Marcos, CA 92078
Adam Dawson, Principal	San Marcos High School	1615 West San Marcos Boulevard San Marcos, CA 92078
Tova Corman, Facilities, Executive Director	San Marcos Unified School District	255 Pico Avenue, Suite 250 San Marcos, CA 92069
Elfin Forest Town Council	Eflin Forest Community	20223 Elfin Forest Road Elfin Forest, CA, 92029
Sarah Godfrey, Preserve Manager	Center for Natural Lands Management	27258 Via Industria Suite B Temecula, CA 92590

TABLE B-4
INDIVIDUALS

Name	Affiliation	Address
Samir Sugathan	Resident	2160 Rocky Point Way San Marcos, CA 92078
Richard Landi	Resident	1261 White Sands Dr. San Marcos, CA 92078
Adela Franco	President, Lake San Marcos Community Association	1030 La Bonita Drive, Suite 342 San Marcos, CA 92078
Liz McCardle	Community Director, San Elijo Hills Community Association	3207 Grey Hawk Court, Suite 140 Carlsbad, CA 92010
C. Wayne Dauber	Chair, Hidden Meadows Planning Group	28117 Par View Court Escondido, CA 92026
Joel Grosser	Stone Brewing	1999 Citracado Parkway Escondido, CA 92029
Mary Ellen Heilgeist	Executive Director, Brookdale Senior Living	1590 West San Marcos Boulevard San Marcos, CA 92078
Archie Gonzalez	Kindred Transitional Care & Rehabilitation	1586 West San Marcos Boulevard San Marcos, CA 92078
Jon G. Lycett	Senior Counsel, Paladin Law Group, LLP	2888 Loker Avenue East, Suite 113-B Carlsbad, CA 92010
Craig Gresbrink	Resident	2154 Island Shore Way Rancho Dorado, CA 92078
Robert Pack	Resident	1260 Summit Point Way San Marcos, CA 92078
JP Theberge	Chair, Elfin Forest Town Council	20223 Elfin Forest Road Elfin Forest, CA, 92029

TABLE B-5
SCHOOLS WITHIN 1 MILE OF THE PROJECT NOTIFICATION LIST

School Name	Address
Valley Christian School	1350 Discovery St. San Marcos, CA 92078
High Tech High School	1420 W. San Marcos Blvd. San Marcos, CA 92078
High Tech Middle School	1460 W. San Marcos Blvd. San Marcos, CA 92078
High Tech Elementary	1480 W. San Marcos Blvd. San Marcos, CA 92078
Discovery Elementary School	730 Applewide Dr. San Marcos, CA 92078
Alvin Dunn Elementary	3697 La Mirada Dr. San Marcos, CA 92078
Mountain Peak Charter	3220 Executive Ridge #160 Vista, CA 92084
Pivot Charter School	1030 La Bonita Dr. #100 San Marcos, CA 92078
Carlsbad Kindercare	6270 Flying Leo Carrillo Ln. Carlsbad, CA 92008
Escondido Union School District Gilbert Center	2310 Aldergrove Ave. Escondido, CA 92025
Del Dios Middle School	1400 W. 9th Street Escondido, CA 92025
san Elijo Middle School	1600 Schoolhouse Way San Marcos, CA 92078
San Elijo Elementary	1615 Schoolhouse Way San Marcos, CA 92078
Double Peak K8 School	111 San Elijo Road San Marcos, CA 92078
Dehesa Charter School	1441 Montiel Rd. #143 Escondido, CA 92025

600' NOTIFICATION LIST

1 Charles Lake Rd North Oaks, MN 55127	1988 Acorn Rd San Marcos, CA 92078
1 Civic Center Dr San Marcos, CA 92069	1989 Acorn Rd San Marcos, CA 92078
1 Cvs Dr Woonsocket RI 02895	1990 Acorn Rd San Marcos, CA 92078
1 Heath Ct Princeton, NK 08540	1990 Citracado Pkwy Escondido, CA 92029
1 Mauchly Irvine, CA 92618	1990 White Oak Ct San Marcos, CA 92078
10 Alder Bush Rochester, NY 14624	1993 Acorn Rd San Marcos, CA 92078
1001 Washington Ave Oceanside, CA 92054	1994 Acorn Rd San Marcos, CA 92078
1004 Norte Vista San Marcos, CA 92078	1994 White Oak Ct San Marcos, CA 92078
1005 Norte Vista San Marcos, CA 92078	1996 Acorn Rd San Marcos, CA 92078
1005 S Rose St Escondido, CA 92027	1996 White Oak Ct San Marcos, CA 92078
10056 Winecrest Rd San Diego, CA 92127	1998 Acorn Rd San Marcos, CA 92078
10077 Boulder Knolls Dr Escondido, CA 92026	1998 Citracado Pkwy Escondido, CA 92029
1009 Camino Del Arroyo Dr San Marcos, CA 92078	1999 Citracado Pkwy Escondido, CA 92029
101 Calle Nogales Walnut Creek, CA 94597	1999 W Citracado Pky Escondido, CA 92029
1011 Andreasen Dr S Escondido, CA 92029	20 Corporate Plaza Dr Newport Beach, CA 92660
1012 Norte Vista San Marcos, CA 92078	20 Pacifica #1470 Irvine, CA 92618
1013 Norte Vista San Marcos, CA 92078	2001 Sequoia St San Marcos, CA 92078
1015 Camino Del Arroyo Dr San Marcos, CA 92078	2001 Silverado St San Marcos, CA 92078
1020 Norte Vista San Marcos, CA 92078	2002 Acacia Dr San Marcos, CA 92078
1021 Camino Del Arroyo Dr San Marcos, CA 92078	2002 Silverado St San Marcos, CA 92078
1023 Norte Vista San Marcos, CA 92078	2003 Acacia Dr San Marcos, CA 92078
10250 Constellation Blvd #2700 Long Beach, CA 90067	2003 Sequoia St San Marcos, CA 92078
1027 Camino Del Arroyo Dr San Marcos, CA 92078	2003 Silverado St San Marcos, CA 92078
1028 Norte Vista San Marcos, CA 92078	2004 Acacia Dr San Marcos, CA 92078
1030 La Bonita Dr #322 San Marcos, CA 92078	2004 Silverado St San Marcos, CA 92078
1031 Andreasen Dr S Escondido, CA 92029	2005 Acacia Dr San Marcos, CA 92078
1033 Camino Del Arroyo Dr San Marcos, CA 92078	2005 Citracado Pkwy Escondido, CA 92029
1039 Camino Del Arroyo Dr San Marcos, CA 92078	2005 Sequoia St San Marcos, CA 92078
1040 Andreasen Dr Escondido, CA 92029	2005 Silverado St San Marcos, CA 92078
1040 S Andreasen Dr #200 Escondido, CA 92029	2006 Acacia Dr San Marcos, CA 92078
1040 S Andreasen Dr, Ste. 200 Escondido, CA 92029	2006 Silverado St San Marcos, CA 92078
10438 La Ballena Cir Fountain Valley, CA 92708	2007 Acacia Dr San Marcos, CA 92078
1045 Camino Del Arroyo Dr San Marcos, CA 92078	2007 Silverado St San Marcos, CA 92078
1045 Landavo Rancho Rd Escondido, CA 92027	2008 Acacia Dr San Marcos, CA 92078
1050 Lake Glen Way Sacramento, CA 95822	2008 Silverado St San Marcos, CA 92078
1051 Camino Del Arroyo Dr San Marcos, CA 92078	2009 Sequoia St San Marcos, CA 92078
1052 Camino Del Arroyo Dr San Marcos, CA 92078	2010 Sequoia St San Marcos, CA 92078
10545 Richard Rd San Diego, CA 92127	2010 Silverado St San Marcos, CA 92078
1057 Camino Del Arroyo Dr San Marcos, CA 92078	2010 W San Marcos Blvd #1 San Marcos, CA 92078
1057 Camino Del Arroyo San Marcos, CA 92078	2010 W San Marcos Blvd #10 San Marcos, CA 92078
1058 Camino Del Arroyo Dr San Marcos, CA 92078	2010 W San Marcos Blvd #100 San Marcos, CA 92078
1062 Brightwood Dr San Marcos, CA 92078	2010 W San Marcos Blvd #11 San Marcos, CA 92078
1066 N Cheyenne St Orange, CA 92869	2010 W San Marcos Blvd #12 San Marcos, CA 92078
10668 Gracewood Pl San Diego, CA 92130	2010 W San Marcos Blvd #13 San Marcos, CA 92078
1071 Tulloch Dr Tracy, CA 95304	2010 W San Marcos Blvd #14 San Marcos, CA 92078
1072 Pear Orchard Dr San Jose, CA 95131	2010 W San Marcos Blvd #15 San Marcos, CA 92078
10721 Treena St #200 San Diego, CA 92131	2010 W San Marcos Blvd #16 San Marcos, CA 92078
10805 Thornmint Rd #200 San Diego, CA 92127	2010 W San Marcos Blvd #17 San Marcos, CA 92078
1085 Village Dr Oceanside, CA 92057	2010 W San Marcos Blvd #18 San Marcos, CA 92078
1092 Camino Del Sol San Marcos, CA 92069	2010 W San Marcos Blvd #19 San Marcos, CA 92078
1101 Via Buena Vista San Marcos, CA 92078	2010 W San Marcos Blvd #2 San Marcos, CA 92078
111 C St #200 Encinitas, CA 92024	2010 W San Marcos Blvd #3 San Marcos, CA 92078
1110 Calle Emparrado San Marcos, CA 92069	2010 W San Marcos Blvd #5 San Marcos, CA 92078

600 NOTIFICATION LIST

1111 Polaris Pky #1j Columbus, OH 43240	2010 W San Marcos Blvd #58 San Marcos, CA 92078
1113 Via Buena Vista San Marcos, CA 92078	2010 W San Marcos Blvd #59 San Marcos, CA 92078
11163 Breckenridge Dr San Diego, CA 92131	2010 W San Marcos Blvd #6 San Marcos, CA 92078
1117 Pacifica Pl Encinitas, CA 92024	2010 W San Marcos Blvd #60 San Marcos, CA 92078
1121 W 11th Ave Escondido, CA 92025	2010 W San Marcos Blvd #61 San Marcos, CA 92078
1124 Glen Ellen Pl San Marcos, CA 92078	2010 W San Marcos Blvd #7 San Marcos, CA 92078
1125 Glen Ellen Pl San Marcos, CA 92078	2010 W San Marcos Blvd #8 San Marcos, CA 92078
1128 Glen Ellen Pl San Marcos, CA 92078	2010 W San Marcos Blvd #88 San Marcos, CA 92078
1132 Glen Ellen Pl San Marcos, CA 92078	2010 W San Marcos Blvd #89 San Marcos, CA 92078
11352 Mustang Ridge Dr San Diego, CA 92130	2010 W San Marcos Blvd #9 San Marcos, CA 92078
1136 Glen Ellen Pl San Marcos, CA 92078	2010 W San Marcos Blvd #90 San Marcos, CA 92078
1137 Glen Ellen Pl San Marcos, CA 92078	2010 W San Marcos Blvd #91 San Marcos, CA 92078
1139 S Santa Fe Ave Vista, CA 92083	2010 W San Marcos Blvd #92 San Marcos, CA 92078
1140 Glen Ellen Pl San Marcos, CA 92078	2010 W San Marcos Blvd #93 San Marcos, CA 92078
1141 Glen Ellen Pl San Marcos, CA 92078	2010 W San Marcos Blvd #94 San Marcos, CA 92078
1143 Calistoga Way San Marcos, CA 92078	2010 W San Marcos Blvd #96 San Marcos, CA 92078
1144 Glen Ellen Pl San Marcos, CA 92078	2010 W San Marcos Blvd #99 San Marcos, CA 92078
1145 Glen Ellen Pl San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. #3 San Marcos, CA 92078
1147 Calistoga Way San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 01 San Marcos, CA 92078
1148 Glen Ellen Pl San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 02 San Marcos, CA 92078
1149 Glen Ellen Pl San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 04 San Marcos, CA 92078
1149 Quail Hill Dr San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 05 San Marcos, CA 92078
1151 Calistoga Way San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 06 San Marcos, CA 92078
1152 Glen Ellen Pl San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 07 San Marcos, CA 92078
1153 Glen Ellen Pl San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 08 San Marcos, CA 92078
1155 Calistoga Way San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 09 San Marcos, CA 92078
1156 Glen Ellen Pl San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 10 San Marcos, CA 92078
1157 Glen Ellen Pl San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 100 San Marcos, CA 92078
1159 Calistoga Way San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 11 San Marcos, CA 92078
1160 Glen Ellen Pl San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 12 San Marcos, CA 92078
1161 Glen Ellen Pl San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 13 San Marcos, CA 92078
1163 Calistoga Way San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 14 San Marcos, CA 92078
1164 Glen Ellen Pl San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 15 San Marcos, CA 92078
1165 Calistoga Way San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 16 San Marcos, CA 92078
1167 Glen Ellen Pl San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 17 San Marcos, CA 92078
1171 N Tustin Ave Anaheim, CA 92807	2010 W San Marcos Blvd, Ste. 171 San Marcos, CA 92078
118 Cambridge Way Nicholasville, KY 40356	2010 W San Marcos Blvd, Ste. 18 San Marcos, CA 92078
119 Good Hope Rd Bluffton, SC 29909	2010 W San Marcos Blvd, Ste. 19 San Marcos, CA 92078
119 N El Camino Real #E Encinitas, CA 92024	2010 W San Marcos Blvd, Ste. 58 San Marcos, CA 92078
120 N Pacific St #A5 San Marcos, CA 92069	2010 W San Marcos Blvd, Ste. 59 San Marcos, CA 92078
1200 White Sands Dr San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 60 San Marcos, CA 92078
12000 Shaw Valley Rd San Diego, CA 92130	2010 W San Marcos Blvd, Ste. 61 San Marcos, CA 92078
1201 White Sands Dr San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 62 San Marcos, CA 92078
1202 White Sands Dr San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 88 San Marcos, CA 92078
1203 White Sands Dr San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 89 San Marcos, CA 92078
1204 White Sands Dr San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 90 San Marcos, CA 92078
1205 White Sands Dr San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 91 San Marcos, CA 92078
1206 Sand Dollar Way San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 92 San Marcos, CA 92078
1206 White Sands Dr San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 93 San Marcos, CA 92078
1207 Sand Dollar Way San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 94 San Marcos, CA 92078
1207 White Sands Dr San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 95 San Marcos, CA 92078
1208 Sand Dollar Way San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 96 San Marcos, CA 92078
1208 White Sands Dr San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 97 San Marcos, CA 92078

600 NOTIFICATION LIST

1209 Sand Dollar Way San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 98 San Marcos, CA 92078
1209 White Sands Dr San Marcos, CA 92078	2010 W San Marcos Blvd, Ste. 99 San Marcos, CA 92078
121 N Garden Ct Lewiston ID 83501	2011 Silverado St San Marcos, CA 92078
1210 Sand Dollar Way San Marcos, CA 92078	2012 Silverado St San Marcos, CA 92078
1210 White Sands Dr San Marcos, CA 92078	2013 Sequoia St San Marcos, CA 92078
1212 Marsh St #3 San Luis Obispo, CA 93401	2013 Silverado St San Marcos, CA 92078
1212 Sand Dollar Way San Marcos, CA 92078	2014 Silverado St San Marcos, CA 92078
1212 White Sands Dr San Marcos, CA 92078	2015 Sequoia St San Marcos, CA 92078
1215 Pacific Oaks Pl #106 Escondido, CA 92029	2015 Silverado St San Marcos, CA 92078
1215 Pacific Oaks Pl Escondido, CA 92029	2016 Sequoia St San Marcos, CA 92078
1215 San Elijo Rd San Marcos, CA 92078	2016 Silverado St San Marcos, CA 92078
1215 Sand Dollar Way San Marcos, CA 92078	2017 Sequoia St San Marcos, CA 92078
1215 White Sands Dr San Marcos, CA 92078	2017 Silverado St San Marcos, CA 92078
1216 Sand Dollar Way San Marcos, CA 92078	2018 Silverado St San Marcos, CA 92078
1217 Sand Dollar Way San Marcos, CA 92078	202 S Pacific St Oceanside, CA 92054
1218 Sand Dollar Way San Marcos, CA 92078	2020 Sequoia St San Marcos, CA 92078
1218 White Sands Dr San Marcos, CA 92078	2020 Silverado St San Marcos, CA 92078
1219 Michigan Ct Alexandria, VA 22314	2021 Sequoia St San Marcos, CA 92078
1219 Sand Dollar Way San Marcos, CA 92078	2022 Sequoia St San Marcos, CA 92078
1219 White Sands Dr San Marcos, CA 92078	2022 Silverado St San Marcos, CA 92078
1220 Granada Way San Marcos, CA 92078	2023 Sequoia St San Marcos, CA 92078
1220 Sand Dollar Way San Marcos, CA 92078	2023 Silverado St San Marcos, CA 92078
1220 White Sands Dr San Marcos, CA 92078	2024 Sequoia St San Marcos, CA 92078
1221 Granada Way San Marcos, CA 92078	2025 Sequoia St San Marcos, CA 92078
1221 White Sands Dr San Marcos, CA 92078	2025 Silverado St San Marcos, CA 92078
1222 Sand Dollar Way San Marcos, CA 92078	2026 Sequoia St San Marcos, CA 92078
1223 Pacific Oaks Pl Escondido, CA 92029	2027 Sequoia St San Marcos, CA 92078
1224 Granada Way San Marcos, CA 92078	2027 Silverado St San Marcos, CA 92078
1224 White Sands Dr San Marcos, CA 92078	2028 Caracol Ct Carlsbad, CA 92009
1225 E Vista Way Vista, CA 92084	2028 Sequoia St San Marcos, CA 92078
1225 Granada Way San Marcos, CA 92078	2029 Silverado St San Marcos, CA 92078
1225 White Sands Dr San Marcos, CA 92078	2030 Sequoia St San Marcos, CA 92078
1227 White Sands Dr San Marcos, CA 92078	2030 Silverado St San Marcos, CA 92078
1228 Rue Saint Jean Lake San Marcos, CA 92078	2031 Sequoia St San Marcos, CA 92078
1229 Granada Way San Marcos, CA 92078	2032 Silverado St San Marcos, CA 92078
1229 White Sands Dr San Marcos, CA 92078	2033 Silverado St San Marcos, CA 92078
1230 Granada Way San Marcos, CA 92078	2034 Sequoia St San Marcos, CA 92078
1231 Granada Way San Marcos, CA 92078	2034 Silverado St San Marcos, CA 92078
1232 Granada Way San Marcos, CA 92078	2035 Sequoia St San Marcos, CA 92078
1233 Granada Way San Marcos, CA 92078	2035 Silverado St San Marcos, CA 92078
1233 White Sands Dr San Marcos, CA 92078	2036 Silverado St San Marcos, CA 92078
1234 Granada Way San Marcos, CA 92078	2037 Silverado St San Marcos, CA 92078
1235 Discovery St San Marcos, CA 92078	2038 Cambridge Ave Cardiff, CA 92007
1235 Granada Way San Marcos, CA 92078	2038 Sequoia St San Marcos, CA 92078
1235 White Sands Dr San Marcos, CA 92078	2038 Silverado St San Marcos, CA 92078
1236 Granada Way San Marcos, CA 92078	2039 Sequoia St San Marcos, CA 92078
1237 Granada Way San Marcos, CA 92078	2039 Silverado St San Marcos, CA 92078
1237 White Sands Dr San Marcos, CA 92078	2040 Sequoia St San Marcos, CA 92078
12375 Kerran St Poway, CA 92064	2040 Silverado St San Marcos, CA 92078
1239 Granada Way San Marcos, CA 92078	2042 Sequoia St San Marcos, CA 92078
1239 White Sands Dr San Marcos, CA 92078	2042 Silverado St San Marcos, CA 92078
1241 Carlsbad Village Dr #G Carlsbad, CA 92008	2043 Redwood Crst Vista, CA 92081
1241 Granada Way San Marcos, CA 92078	2043 Silverado St San Marcos, CA 92078

600 NOTIFICATION LIST

1241 W San Marcos Blvd San Marcos, CA 92078	2044 Sequoia St San Marcos, CA 92078
1241 White Sands Dr San Marcos, CA 92078	2044 Silverado St San Marcos, CA 92078
1242 White Sands Dr San Marcos, CA 92078	2045 Silverado St San Marcos, CA 92078
1243 Discovery St San Marcos, CA 92078	2046 Sequoia St San Marcos, CA 92078
1243 Granada Way San Marcos, CA 92078	2046 Silverado St San Marcos, CA 92078
1243 White Sands Dr San Marcos, CA 92078	2047 Silverado St San Marcos, CA 92078
1244 White Sands Dr San Marcos, CA 92078	2048 Silverado St San Marcos, CA 92078
1245 Granada Way San Marcos, CA 92078	2049 Silverado St San Marcos, CA 92078
1245 White Sands Dr San Marcos, CA 92078	2055 Citracado Pkwy Escondido, CA 92029
1247 Discovery St San Marcos, CA 92078	2055 Silverado St San Marcos, CA 92078
1247 Elfin Forest Rd W San Marcos, CA 92078	2056 Silverado St San Marcos, CA 92078
1247 Granada Way San Marcos, CA 92078	20560 Questhaven Rd Escondido, CA 92078
1247 W San Marcos Blvd San Marcos, CA 92078	20560 Questhaven Rd San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. A1 San Marcos, CA 92078	2057 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. A10 San Marcos, CA 92078	2058 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. A11 San Marcos, CA 92078	2059 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. A12 San Marcos, CA 92078	2060 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. A13 San Marcos, CA 92078	2061 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. A14 San Marcos, CA 92078	2061 Wineridge Pl Escondido, CA 92029
1247 W San Marcos Blvd, Ste. A15 San Marcos, CA 92078	2062 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. A2 San Marcos, CA 92078	2063 Wineridge Pl Escondido, CA 92029
1247 W San Marcos Blvd, Ste. A3 San Marcos, CA 92078	2064 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. A4 San Marcos, CA 92078	2065 Citracado Pkwy Escondido, CA 92029
1247 W San Marcos Blvd, Ste. A5 San Marcos, CA 92078	2065 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. A6 San Marcos, CA 92078	2066 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. A7 San Marcos, CA 92078	2067 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. A8 San Marcos, CA 92078	2067 Wineridge Pl #A Escondido, CA 92029
1247 W San Marcos Blvd, Ste. A9 San Marcos, CA 92078	2067 Wineridge Pl #F Escondido, CA 92029
1247 W San Marcos Blvd, Ste. B1 San Marcos, CA 92078	2067 Wineridge Pl, Ste. A Escondido, CA 92029
1247 W San Marcos Blvd, Ste. B10 San Marcos, CA 92078	2067 Wineridge Pl, Ste. B Escondido, CA 92029
1247 W San Marcos Blvd, Ste. B11 San Marcos, CA 92078	2067 Wineridge Pl, Ste. C Escondido, CA 92029
1247 W San Marcos Blvd, Ste. B12 San Marcos, CA 92078	2067 Wineridge Pl, Ste. D Escondido, CA 92029
1247 W San Marcos Blvd, Ste. B13 San Marcos, CA 92078	2067 Wineridge Pl, Ste. E Escondido, CA 92029
1247 W San Marcos Blvd, Ste. B14 San Marcos, CA 92078	2067 Wineridge Pl, Ste. F Escondido, CA 92029
1247 W San Marcos Blvd, Ste. B15 San Marcos, CA 92078	2068 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. B2 San Marcos, CA 92078	2069 Aldergrove Ave Escondido, CA 92029
1247 W San Marcos Blvd, Ste. B3 San Marcos, CA 92078	2069 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. B4 San Marcos, CA 92078	2070 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. B5 San Marcos, CA 92078	2071 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. B6 San Marcos, CA 92078	2071 Wineridge Pl Escondido, CA 92029
1247 W San Marcos Blvd, Ste. B7 San Marcos, CA 92078	2072 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. B8 San Marcos, CA 92078	2074 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. B9 San Marcos, CA 92078	2075 Citracado Pkwy Escondido, CA 92029
1247 W San Marcos Blvd, Ste. C1 San Marcos, CA 92078	2075 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. C2 San Marcos, CA 92078	2076 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. C3 San Marcos, CA 92078	2077 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. C4 San Marcos, CA 92078	2078 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. C5 San Marcos, CA 92078	2079 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. C6 San Marcos, CA 92078	2081 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. C7 San Marcos, CA 92078	20845 Questhaven Rd San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. C8 San Marcos, CA 92078	2086 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. D1 San Marcos, CA 92078	2087 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. D2 San Marcos, CA 92078	2088 Silverado St San Marcos, CA 92078

600 NOTIFICATION LIST

1247 W San Marcos Blvd, Ste. D3 San Marcos, CA 92078	2089 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. D4 San Marcos, CA 92078	209 Avenida Del Mar #201 San Clemente, CA 92672
1247 W San Marcos Blvd, Ste. D5 San Marcos, CA 92078	2090 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. D6 San Marcos, CA 92078	2091 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. D7 San Marcos, CA 92078	2092 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. D8 San Marcos, CA 92078	2093 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. E1 San Marcos, CA 92078	2094 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. E10 San Marcos, CA 92078	2096 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. E11 San Marcos, CA 92078	2097 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. E12 San Marcos, CA 92078	2098 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. E13 San Marcos, CA 92078	2099 Citracado Pkwy Escondido, CA 92029
1247 W San Marcos Blvd, Ste. E14 San Marcos, CA 92078	2099 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. E15 San Marcos, CA 92078	2100 Citracado Pkwy Escondido, CA 92029
1247 W San Marcos Blvd, Ste. E2 San Marcos, CA 92078	2100 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. E3 San Marcos, CA 92078	2101 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. E4 San Marcos, CA 92078	2102 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. E5 San Marcos, CA 92078	2103 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. E6 San Marcos, CA 92078	2104 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. E7 San Marcos, CA 92078	2105 Caminito Del Barco Del Mar, CA 92014
1247 W San Marcos Blvd, Ste. E8 San Marcos, CA 92078	21050 Questhaven Rd San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. E9 San Marcos, CA 92078	2106 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. F1 San Marcos, CA 92078	21065 Questhaven Rd Escondido, CA 92078
1247 W San Marcos Blvd, Ste. F-10 San Marcos, CA 92078	2108 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. F11 San Marcos, CA 92078	2109 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. F12 San Marcos, CA 92078	2110 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. F13 San Marcos, CA 92078	2111 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. F14 San Marcos, CA 92078	2113 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. F15 San Marcos, CA 92078	2115 Sea Island Pl San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. F2 San Marcos, CA 92078	2115 Silverado St San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. F3 San Marcos, CA 92078	2116 Crystal Cove Way San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. F4 San Marcos, CA 92078	2116 Sea Island Pl San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. F5 San Marcos, CA 92078	2117 Sea Island Pl San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. F6 San Marcos, CA 92078	2118 Crystal Cove Way San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. F7 San Marcos, CA 92078	2118 Imperial Ave San Diego, CA 92102
1247 W San Marcos Blvd, Ste. F8 San Marcos, CA 92078	2118 Sea Island Pl San Marcos, CA 92078
1247 W San Marcos Blvd, Ste. F9 San Marcos, CA 92078	2118 Silverado St San Marcos, CA 92078
1247 White Sands Dr San Marcos, CA 92078	2119 Sand Crest Way San Marcos, CA 92078
1248 San Julian Pl San Marcos, CA 92078	2119 Sea Island Pl San Marcos, CA 92078
1248 White Sands Dr San Marcos, CA 92078	2119 Silverado St San Marcos, CA 92078
1249 E Imperial Hwy #A Placentia, CA 92870	2120 Crystal Cove Way San Marcos, CA 92078
1249 Granada Way San Marcos, CA 92078	2120 Harmony Grove Rd Escondido, CA 92029
1250 White Sands Dr San Marcos, CA 92078	2120 Sand Crest Way San Marcos, CA 92078
1251 Discovery St San Marcos, CA 92078	2120 Sea Island Pl San Marcos, CA 92078
1251 Granada Way San Marcos, CA 92078	2120 Silverado St San Marcos, CA 92078
1253 Granada Way San Marcos, CA 92078	2121 Chablis Ct Escondido, CA 92029
1255 Discovery St San Marcos, CA 92078	2121 Sand Crest Way San Marcos, CA 92078
1256 Granada Way San Marcos, CA 92078	2121 Sea Island Pl San Marcos, CA 92078
1256 Summit Point Way San Marcos, CA 92078	2121 Silverado St San Marcos, CA 92078
1258 Granada Way San Marcos, CA 92078	21219 Questhaven Rd San Marcos, CA 92078
1258 Summit Point Way San Marcos, CA 92078	2122 Crystal Cove Way San Marcos, CA 92078
1259 Discovery St San Marcos, CA 92078	2122 Sand Crest Way San Marcos, CA 92078
1259 Granada Way San Marcos, CA 92078	2122 Sea Island Pl San Marcos, CA 92078
1260 Liberty Way #B Vista, CA 92081	2122 Silverado St San Marcos, CA 92078

600 NOTIFICATION LIST

1260 Summit Point Way San Marcos, CA 92078	2123 Sand Crest Way San Marcos, CA 92078
1261 Granada Way San Marcos, CA 92078	2123 Sea Island Pl San Marcos, CA 92078
1262 Summit Point Way San Marcos, CA 92078	2123 Silverado St San Marcos, CA 92078
1263 Discovery St San Marcos, CA 92078	21230 Questhaven Rd Escondido, CA 92078
1264 Granada Way San Marcos, CA 92078	2124 Sand Crest Way San Marcos, CA 92078
1264 Summit Point Way San Marcos, CA 92078	2124 Sea Island Pl San Marcos, CA 92078
1265 Caminito Septimo Cardiff, CA 92007	2124 Silverado St San Marcos, CA 92078
1266 Granada Way San Marcos, CA 92078	2125 Citracado Pkwy Escondido, CA 92029
1266 Summit Point Way San Marcos, CA 92078	2125 S El Camino Real #210 Oceanside, CA 92054
12669 E 131st St Fishers In 46037	2125 Sand Crest Way San Marcos, CA 92078
1267 Discovery St San Marcos, CA 92078	2125 Sea Island Pl San Marcos, CA 92078
1267 Granada Way San Marcos, CA 92078	2125 Silverado St San Marcos, CA 92078
1268 Summit Point Way San Marcos, CA 92078	2126 Sand Crest Way San Marcos, CA 92078
1269 Granada Way San Marcos, CA 92078	2126 Se Marine Science Dr Newport, OR 97365
1270 Summit Point Way San Marcos, CA 92078	2126 Sea Island Pl San Marcos, CA 92078
1271 Discovery St San Marcos, CA 92078	2126 Silverado St San Marcos, CA 92078
1271 Granada Way San Marcos, CA 92078	2127 Sand Crest Way San Marcos, CA 92078
1273 Granada Way San Marcos, CA 92078	2128 Sand Crest Way San Marcos, CA 92078
1275 Discovery St San Marcos, CA 92078	2128 Sea Island Pl San Marcos, CA 92078
1275 Emerald Sea Way San Marcos, CA 92078	2128 Silverado St San Marcos, CA 92078
1275 Granada Way San Marcos, CA 92078	2129 Sand Crest Way San Marcos, CA 92078
1276 Emerald Sea Way San Marcos, CA 92078	2129 Silverado St San Marcos, CA 92078
1277 Emerald Sea Way San Marcos, CA 92078	2130 Citracado Pkwy Escondido, CA 92029
1277 Granada Way San Marcos, CA 92078	2130 Sand Crest Way San Marcos, CA 92078
1277 Pacific Oaks Pl #100 Escondido, CA 92029	2130 Sea Island Pl San Marcos, CA 92078
1277 Pacific Oaks Pl Escondido, CA 92029	2130 Silverado St San Marcos, CA 92078
1278 Emerald Sea Way San Marcos, CA 92078	21303 Bresa De Loma Dr Escondido, CA 92029
1279 Emerald Sea Way San Marcos, CA 92078	2131 Sand Crest Way San Marcos, CA 92078
1279 Granada Way San Marcos, CA 92078	2131 Silverado St San Marcos, CA 92078
1281 Emerald Sea Way San Marcos, CA 92078	2132 Sand Crest Way San Marcos, CA 92078
1281 W San Marcos Blvd San Marcos, CA 92078	2132 Sea Island Pl San Marcos, CA 92078
1284 Emerald Sea Way San Marcos, CA 92078	2132 Silverado St San Marcos, CA 92078
1284 Granada Way San Marcos, CA 92078	2132 Sun Valley Rd San Marcos, CA 92078
1285 Emerald Sea Way San Marcos, CA 92078	2133 Sand Crest Way San Marcos, CA 92078
1285 Granada Way San Marcos, CA 92078	2133 Silverado St San Marcos, CA 92078
1285 W Discovery St San Marcos, CA 92078	2133 Sun Valley Rd San Marcos, CA 92078
1286 Discovery St #148 San Marcos, CA 92078	2134 Sea Island Pl San Marcos, CA 92078
1286 Discovery St #149 San Marcos, CA 92078	2134 Silverado St San Marcos, CA 92078
1286 Discovery St San Marcos, CA 92078	2134 Sun Valley Rd San Marcos, CA 92078
1286 Discovery St, Ste. 148 San Marcos, CA 92078	21348 Bresa De Loma Dr Escondido, CA 92029
1286 Discovery St, Ste. 149 San Marcos, CA 92078	2135 Citracado Pkwy Escondido, CA 92029
1286 Emerald Sea Way San Marcos, CA 92078	2135 Sand Crest Way San Marcos, CA 92078
1286 Granada Way San Marcos, CA 92078	2135 Silverado St San Marcos, CA 92078
12865 Pointe Del Mar Way #200 Del Mar, CA 92014	2135 Sun Valley Rd San Marcos, CA 92078
1287 Granada Way San Marcos, CA 92078	2136 Sea Island Pl San Marcos, CA 92078
1288 Emerald Sea Way San Marcos, CA 92078	2136 Silverado St San Marcos, CA 92078
129 Feathercrest Ln Apex, NC 27539	2137 Sand Crest Way San Marcos, CA 92078
1290 Emerald Sea Way San Marcos, CA 92078	2138 Sea Island Pl San Marcos, CA 92078
1291 Pacific Oaks Pl Escondido, CA 92029	2138 Silverado St San Marcos, CA 92078
1292 Emerald Sea Way San Marcos, CA 92078	2138 Sun Valley Rd San Marcos, CA 92078
1293 Granada Way San Marcos, CA 92078	2139 Silverado St San Marcos, CA 92078
1294 Emerald Sea Way San Marcos, CA 92078	2140 Island Shore Way San Marcos, CA 92078
1294 Granada Way San Marcos, CA 92078	2140 Silverado St San Marcos, CA 92078

600 NOTIFICATION LIST

1295 Granada Way San Marcos, CA 92078	2140 Sun Valley Rd San Marcos, CA 92078
1296 Granada Way San Marcos, CA 92078	2141 Island Shore Way San Marcos, CA 92078
1301 Elfin Forest Rd San Marcos, CA 92078	2141 Silverado St San Marcos, CA 92078
1303 San Julian Dr San Marcos, CA 92078	2142 Coast Ave San Marcos, CA 92078
1304 San Pablo Ct San Marcos, CA 92078	2142 Island Shore Way San Marcos, CA 92078
13087 Abing Ave San Diego, CA 92129	2143 Sea Island Pl San Marcos, CA 92078
1312 San Pablo Ct San Marcos, CA 92078	2143 Silverado St San Marcos, CA 92078
13148 Herrick Ave Sylmar, CA 91342	21430 Bresa De Loma Dr Escondido, CA 92029
13155 Noel 100 Lb73 Dallas, TX 75240	21430 Questhaven Rd Escondido, CA 92078
13172 Flint Dr Santa Ana, CA 92705	2144 Coast Ave San Marcos, CA 92078
1318 San Pablo Ct San Marcos, CA 92078	2145 Coast Ave San Marcos, CA 92078
1319 San Pablo Ct San Marcos, CA 92078	2145 Island Shore Way San Marcos, CA 92078
1324 San Pablo Ct San Marcos, CA 92078	2145 Sea Island Pl San Marcos, CA 92078
1325 Oak View Way Escondido, CA 92029	2145 Silverado St San Marcos, CA 92078
1325 San Pablo Ct San Marcos, CA 92078	2146 Coast Ave San Marcos, CA 92078
13261 Denara Rd San Diego, CA 92130	2146 Island Shore Way San Marcos, CA 92078
1329 San Pablo Ct San Marcos, CA 92078	2147 Coast Ave San Marcos, CA 92078
1330 San Pablo Ct San Marcos, CA 92078	2147 Island Shore Way San Marcos, CA 92078
13405 Walnutwood Ln Germantown Md 20874	2148 Amanda Ln Escondido, CA 92029
1346 Via Conejo Escondido, CA 92029	2148 Coast Ave San Marcos, CA 92078
13469 Sydney Rae Pl San Diego, CA 92129	2148 Island Shore Way San Marcos, CA 92078
1350 Dandelion Way San Marcos, CA 92078	2148 Silverado St San Marcos, CA 92078
1350 Discovery Rd San Marcos, CA 92078	2149 Island Shore Way San Marcos, CA 92078
1350 Discovery St San Marcos, CA 92078	21498 Bresa De Loma Dr Escondido, CA 92029
1351 Abbey Ln San Marcos, CA 92078	2150 Citracado Pkwy Escondido, CA 92029
1352 Dandelion Way San Marcos, CA 92078	2150 Coast Ave San Marcos, CA 92078
1353 Abbey Ln San Marcos, CA 92078	2150 Goya Pl San Marcos, CA 92078
1354 Dandelion Way San Marcos, CA 92078	2150 Island Shore Way San Marcos, CA 92078
1355 Abbey Ln San Marcos, CA 92078	2150 Silverado St San Marcos, CA 92078
1356 Dandelion Way San Marcos, CA 92078	2151 Coast Ave San Marcos, CA 92078
1357 Abbey Ln San Marcos, CA 92078	2151 Goya Pl San Marcos, CA 92078
1358 Dandelion Way San Marcos, CA 92078	2151 Island Shore Way San Marcos, CA 92078
1359 Abbey Ln San Marcos, CA 92078	2151 Silverado St San Marcos, CA 92078
1360 Dandelion Way San Marcos, CA 92078	2152 Goya Pl San Marcos, CA 92078
1361 Abbey Ln San Marcos, CA 92078	2152 Island Shore Way San Marcos, CA 92078
1362 Dandelion Way San Marcos, CA 92078	2152 Silverado St San Marcos, CA 92078
1363 Abbey Ln San Marcos, CA 92078	2153 Coast Ave San Marcos, CA 92078
1364 Dandelion Way San Marcos, CA 92078	2153 Goya Pl San Marcos, CA 92078
1365 Abbey Ln San Marcos, CA 92078	2153 Island Shore Way San Marcos, CA 92078
1368 Dandelion Way San Marcos, CA 92078	2153 Silverado St San Marcos, CA 92078
1369 Cattail Ct San Marcos, CA 92078	2154 Coast Ave San Marcos, CA 92078
1370 Dandelion Way San Marcos, CA 92078	2154 Island Shore Way San Marcos, CA 92078
1370 San Marcos Blvd San Marcos, CA 92078	2154 Silverado St San Marcos, CA 92078
1371 Cattail Ct San Marcos, CA 92078	2155 Coast Ave San Marcos, CA 92078
1372 Dandelion Way San Marcos, CA 92078	2155 Goya Pl San Marcos, CA 92078
1373 Cattail Ct San Marcos, CA 92078	2155 Island Shore Way San Marcos, CA 92078
1374 Dandelion Way San Marcos, CA 92078	2155 Silverado St San Marcos, CA 92078
1375 Cattail Ct San Marcos, CA 92078	2156 Coast Ave San Marcos, CA 92078
1376 Dandelion Way San Marcos, CA 92078	2156 Goya Pl San Marcos, CA 92078
1377 Cattail Ct San Marcos, CA 92078	2156 Island Shore Way San Marcos, CA 92078
1379 Cattail Ct San Marcos, CA 92078	2156 Silverado St San Marcos, CA 92078
1380 Beringer Ln Vista, CA 92081	2157 Coast Ave San Marcos, CA 92078
1380 Dandelion Way San Marcos, CA 92078	2157 Goya Pl San Marcos, CA 92078

600 NOTIFICATION LIST

1381 Cattail Ct San Marcos, CA 92078	2157 Island Shore Way San Marcos, CA 92078
13811 Danielson St Poway, CA 92064	2157 Silverado St San Marcos, CA 92078
1382 Dandelion Way San Marcos, CA 92078	2158 Coast Ave San Marcos, CA 92078
1383 Cattail Ct San Marcos, CA 92078	2158 Goya Pl San Marcos, CA 92078
1384 Dandelion Way San Marcos, CA 92078	2158 Island Shore Way San Marcos, CA 92078
1385 Cattail Ct San Marcos, CA 92078	2158 Silverado St San Marcos, CA 92078
1386 Dandelion Way San Marcos, CA 92078	2159 Coast Ave San Marcos, CA 92078
1387 Cattail Ct San Marcos, CA 92078	2159 Goya Pl San Marcos, CA 92078
1388 Dandelion Way San Marcos, CA 92078	2159 Island Shore Way San Marcos, CA 92078
1389 Cattail Ct San Marcos, CA 92078	2160 Coast Ave San Marcos, CA 92078
1390 Dandelion Way San Marcos, CA 92078	2160 Goya Pl San Marcos, CA 92078
1391 Cattail Ct San Marcos, CA 92078	2160 Island Shore Way San Marcos, CA 92078
1392 Dandelion Way San Marcos, CA 92078	2160 Silverado St San Marcos, CA 92078
1393 Cattail Ct San Marcos, CA 92078	2161 Coast Ave San Marcos, CA 92078
1394 Dandelion Way San Marcos, CA 92078	2161 Silverado St San Marcos, CA 92078
13948 Amber Sky Ln San Diego, CA 92129	2162 Island Shore Way San Marcos, CA 92078
1395 Cattail Ct San Marcos, CA 92078	2162 Silverado St San Marcos, CA 92078
1397 Cattail Ct San Marcos, CA 92078	2163 Coast Ave San Marcos, CA 92078
1399 Cattail Ct San Marcos, CA 92078	2163 Goya Pl San Marcos, CA 92078
1401 Rivercrest Rd San Marcos, CA 92078	2163 Silverado St San Marcos, CA 92078
1403 Rivercrest Rd San Marcos, CA 92078	2164 Coast Ave San Marcos, CA 92078
14041 Kelowna Ln Valley Center, CA 92082	2164 Island Shore Way San Marcos, CA 92078
1405 Rivercrest Rd San Marcos, CA 92078	2164 Silverado St San Marcos, CA 92078
1406 Via Valente Escondido, CA 92029	2165 Coast Ave San Marcos, CA 92078
1407 Rivercrest Rd San Marcos, CA 92078	2165 Silverado St San Marcos, CA 92078
1409 Rivercrest Rd San Marcos, CA 92078	21659 Wilgen Rd Escondido, CA 92029
1410 Willowview Ct Encinitas, CA 92024	2166 Coast Ave San Marcos, CA 92078
1413 Rivercrest Rd San Marcos, CA 92078	2166 Island Shore Way San Marcos, CA 92078
1415 Rivercrest Rd San Marcos, CA 92078	2166 Silverado St San Marcos, CA 92078
1416 Cressa Ct Carlsbad, CA 92011	2167 Silverado St San Marcos, CA 92078
1417 Rivercrest Rd San Marcos, CA 92078	21671 Wilgen Rd Escondido, CA 92029
1419 Rivercrest Rd San Marcos, CA 92078	2168 Island Shore Way San Marcos, CA 92078
1420 W San Marcos Blvd San Marcos, CA 92078	2168 Silverado St San Marcos, CA 92078
1421 Rivercrest Rd San Marcos, CA 92078	2170 Citracado Pkwy Escondido, CA 92029
1423 Rivercrest Rd San Marcos, CA 92078	2170 Island Shore Way San Marcos, CA 92078
1427 Rivercrest Rd San Marcos, CA 92078	2170 Silverado St San Marcos, CA 92078
1429 Rivercrest Rd San Marcos, CA 92078	2171 Coast Ave San Marcos, CA 92078
1430 Via Del Corvo San Marcos, CA 92078	2171 Silverado St San Marcos, CA 92078
1433 Rivercrest Rd San Marcos, CA 92078	2172 Island Shore Way San Marcos, CA 92078
1434 Anthony Heights Dr Escondido, CA 92026	2172 Rocky Point Way San Marcos, CA 92078
1434 Rivercrest Rd San Marcos, CA 92078	2172 Silverado St San Marcos, CA 92078
1435 Rivercrest Rd San Marcos, CA 92078	2173 Coast Ave San Marcos, CA 92078
1436 Rivercrest Rd San Marcos, CA 92078	2173 Silverado St San Marcos, CA 92078
1437 Rivercrest Rd San Marcos, CA 92078	2174 Island Shore Way San Marcos, CA 92078
1438 E Feemster Ave Visalia, CA 93292	2174 Silverado St San Marcos, CA 92078
1439 Rivercrest Rd San Marcos, CA 92078	21747 Amble Dr Escondido, CA 92029
1440 Rivercrest Rd San Marcos, CA 92078	2175 Citracado Pkwy Escondido, CA 92029
1440 W Mission Rd Escondido, CA 92029	2175 Coast Ave San Marcos, CA 92078
1441 Gwenn Dr Anchorage, AK 99515	2175 Silverado St San Marcos, CA 92078
1441 Misty Sea Way San Marcos, CA 92078	21755 Amble Dr Escondido, CA 92029
1441 River Crest Rd San Marcos, CA 92078	21767 Amble Dr Escondido, CA 92029
1441 Rivercrest Rd San Marcos, CA 92078	2177 Coast Ave San Marcos, CA 92078
1442 Rivercrest Rd San Marcos, CA 92078	2177 Silverado St San Marcos, CA 92078

600 NOTIFICATION LIST

1446 River Crest Rd San Marcos, CA 92078	2179 Coast Ave San Marcos, CA 92078
1448 Rivercrest Rd San Marcos, CA 92078	2180 Chablis Ct Escondido, CA 92029
1449 Rainbow Ridge Ln Encinitas, CA 92024	2180 Silverado St San Marcos, CA 92078
1449 River Crest Rd San Marcos, CA 92078	2181 Coast Ave San Marcos, CA 92078
1449 Rivercrest Rd San Marcos, CA 92078	2181 Silverado St San Marcos, CA 92078
145 S Bent Ave San Marcos, CA 92078	2182 Silverado St San Marcos, CA 92078
1450 Rivercrest Rd San Marcos, CA 92078	21820 Gallop Way Escondido, CA 92029
1451 Rivercrest Rd San Marcos, CA 92078	21821 Gallop Way Escondido, CA 92029
1451 Valley View Rd Glendale, CA 91202	21829 Gallop Way Escondido, CA 92029
1452 Rivercrest Rd San Marcos, CA 92078	2183 Coast Ave San Marcos, CA 92078
1453 Rivercrest Rd San Marcos, CA 92078	2183 Silverado St San Marcos, CA 92078
1454 Rivercrest Rd San Marcos, CA 92078	21836 Gallop Way Escondido, CA 92029
1455 Rivercrest Rd San Marcos, CA 92078	2184 Silverado St San Marcos, CA 92078
1456 La Linda Dr San Marcos, CA 92078	21847 Gallop Way Escondido, CA 92029
1457 La Plaza Dr San Marcos, CA 92078	21848 Gallop Way Escondido, CA 92029
1458 Golden Sunset Dr San Marcos, CA 92078	2185 Citracado Pkwy Escondido, CA 92029
1459 Rivercrest Rd San Marcos, CA 92078	2185 Coast Ave San Marcos, CA 92078
1460 Mission Rd Escondido, CA 92029	2185 Silverado St San Marcos, CA 92078
1460 River Crest Rd San Marcos, CA 92078	2186 Coast Ave San Marcos, CA 92078
1460 Rivercrest Rd San Marcos, CA 92078	2186 Silverado St San Marcos, CA 92078
1460 W San Marcos Blvd San Marcos, CA 92078	21860 Gallop Way Escondido, CA 92029
14602 Old Creek Rd San Diego, CA 92131	2187 Coast Ave San Marcos, CA 92078
1461 Rivercrest Rd San Marcos, CA 92078	2187 Silverado St San Marcos, CA 92078
14754 Via Del Canon Del Mar, CA 92014	21872 Gallop Way Escondido, CA 92029
1477 La Habra Dr San Marcos, CA 92078	2188 Coast Ave San Marcos, CA 92078
1478 Misty Sea Way San Marcos, CA 92078	2189 Coast Ave San Marcos, CA 92078
14791 Daneway Dr Frisco, TX 75035	2190 Coast Ave San Marcos, CA 92078
148 N Highway 101 Encinitas, CA 92024	21905 Long Trot Dr Escondido, CA 92029
1480 W San Marcos Blvd San Marcos, CA 92078	2191 Coast Ave San Marcos, CA 92078
150 Basil St #B Encinitas, CA 92024	21910 Long Trot Dr Escondido, CA 92029
1508 Green Oak Rd Vista, CA 92081	21913 Long Trot Dr Escondido, CA 92029
1508 Mission Rd Escondido, CA 92029	21918 Long Trot Dr Escondido, CA 92029
1508 W Mission Rd Escondido, CA 92029	2192 Coast Ave San Marcos, CA 92078
1509 Brookside Ct San Marcos, CA 92078	2192 Palomar Airport Rd, 2nd Floor Carlsbad, CA 92008
1510 Brookside Ct San Marcos, CA 92078	2192 Silverado St San Marcos, CA 92078
15102 Skyridge Rd Poway, CA 92064	21920 Gallop Way Escondido, CA 92029
1511 Via Del Corvo San Marcos, CA 92078	21921 Long Trot Dr Escondido, CA 92029
1513 Grandon Ave San Marcos, CA 92078	21926 Long Trot Dr Escondido, CA 92029
1515 Brookside Ct San Marcos, CA 92078	21928 Gallop Way Escondido, CA 92029
1515 Grandon Ave San Marcos, CA 92078	21929 Long Trot Dr Escondido, CA 92029
1517 Brookside Ct San Marcos, CA 92078	2193 Coast Ave San Marcos, CA 92078
1517 Grandon Ave San Marcos, CA 92078	2193 Silverado St San Marcos, CA 92078
1518 Brookside Ct San Marcos, CA 92078	21937 Long Trot Dr Escondido, CA 92029
1518 Via Del Corvo San Marcos, CA 92078	2194 Coast Ave San Marcos, CA 92078
1519 Grandon Ave San Marcos, CA 92078	2194 Silverado St San Marcos, CA 92078
1521 Brookside Ct San Marcos, CA 92078	21945 Long Trot Dr Escondido, CA 92029
1521 Grandon Ave San Marcos, CA 92078	21946 Gallop Way Escondido, CA 92029
1521 Melody Ln Fullerton, CA 92831	2195 Citracado Pkwy Escondido, CA 92029
1523 Grandon Ave San Marcos, CA 92078	2195 Silverado St San Marcos, CA 92078
1523 San Elijo Rd S #206 San Marcos, CA 92078	21952 Gallop Way Escondido, CA 92029
1523 San Elijo Rd S #207 San Marcos, CA 92078	21953 Long Trot Dr Escondido, CA 92029
1523 San Elijo Rd S #208 San Marcos, CA 92078	2196 Coast Ave San Marcos, CA 92078
1523 San Elijo Rd S San Marcos, CA 92078	2196 Silverado St San Marcos, CA 92078

600 NOTIFICATION LIST

1523 San Elijo Rd S, Ste. 206 San Marcos, CA 92078	21960 Long Trot Dr Escondido, CA 92029
1523 San Elijo Rd S, Ste. 207 San Marcos, CA 92078	21961 Long Trot Dr Escondido, CA 92029
1523 San Elijo Rd S, Ste. 208 San Marcos, CA 92078	21964 Gallop Way Escondido, CA 92029
1523 San Elijo Rd S, Ste. 209 San Marcos, CA 92078	21968 Long Trot Dr Escondido, CA 92029
1523 Via Del Corvo San Marcos, CA 92078	21969 Long Trot Dr Escondido, CA 92029
1524 Brookside Ct San Marcos, CA 92078	2197 Silverado St San Marcos, CA 92078
1525 Brookside Ct San Marcos, CA 92078	21976 Gallop Way Escondido, CA 92029
1525 Grandon Ave San Marcos, CA 92078	21977 Long Trot Dr Escondido, CA 92029
1527 Grandon Ave San Marcos, CA 92078	2198 Coast Ave San Marcos, CA 92078
1527 Kings Cross Dr Cardiff, CA 92007	2198 Silverado St San Marcos, CA 92078
1529 Brookside Ct San Marcos, CA 92078	21985 Long Trot Dr Escondido, CA 92029
1529 Grandon Ave San Marcos, CA 92078	2199 Silverado St San Marcos, CA 92078
1530 Brookside Ct San Marcos, CA 92078	21990 Long Trot Dr Escondido, CA 92029
1531 Copper Ct San Marcos, CA 92078	21993 Long Trot Dr Escondido, CA 92029
1531 Grandon Ave San Marcos, CA 92078	22 Groveside Dr Aliso Viejo, CA 92656
1533 Brookside Ct San Marcos, CA 92078	22 Vienne Irvine, CA 92606
1533 Copper Ct San Marcos, CA 92078	22004 Long Trot Dr Escondido, CA 92029
1534 Brookside Ct San Marcos, CA 92078	22005 Long Trot Dr Escondido, CA 92029
15345 Wyeport Rd Ramona, CA 92065	22013 Long Trot Dr Escondido, CA 92029
1535 Copper Ct San Marcos, CA 92078	22021 Long Trot Dr Escondido, CA 92029
1535 Via Del Corvo San Marcos, CA 92078	22028 Long Trot Dr Escondido, CA 92029
1536 Copper Ct San Marcos, CA 92078	22029 Long Trot Dr Escondido, CA 92029
15360 Barranca Pkwy Irvine, CA 92618	22037 Long Trot Dr Escondido, CA 92029
15373 Innovation Dr #300 San Diego, CA 92128	22044 Long Trot Dr Escondido, CA 92029
1538 Brighton Glen Rd San Marcos, CA 92078	22045 Long Trot Dr Escondido, CA 92029
1539 Copper Ct San Marcos, CA 92078	2207 Harmony Grove Rd Escondido, CA 92029
1540 Copper Ct San Marcos, CA 92078	2208 Harmony Grove Rd Escondido, CA 92029
1540 Gascony Rd Encinitas, CA 92024	2211 Encinitas Blvd Encinitas, CA 92024
1541 Rancho Santa Fe Rd San Marcos, CA 92078	222 Kearny St #600 San Francisco, CA 94108
1542 Copper Ct San Marcos, CA 92078	2222 Enterprise St Escondido, CA 92029
1542 Via Allondra San Marcos, CA 92078	22229 Long Trot Dr Escondido, CA 92029
1543 Copper Ct San Marcos, CA 92078	22241 Long Trot Dr Escondido, CA 92029
1544 Crescent Pl San Marcos, CA 92078	22253 Long Trot Dr Escondido, CA 92029
1546 Crescent Pl San Marcos, CA 92078	22265 Long Trot Dr Escondido, CA 92029
1547 Copper Ct San Marcos, CA 92078	2227 Enterprise St Escondido, CA 92029
1547 Crescent Pl San Marcos, CA 92078	2227 Paseo Saucedal Carlsbad, CA 92009
1548 Copper Ct San Marcos, CA 92078	2229 Enterprise St Escondido, CA 92029
1550 Black Walnut Dr San Marcos, CA 92078	2230 Enterprise St Escondido, CA 92029
1550 Copper Ct San Marcos, CA 92078	2235 Enterprise St Escondido, CA 92029
1550 Crescent Pl San Marcos, CA 92078	2237 Faraday Ave #100 Carlsbad, CA 92008
1550 Via Allondra San Marcos, CA 92078	2241 Lundy Lake Dr Escondido, CA 92029
1551 Crescent Pl San Marcos, CA 92078	2245 Enterprise St Escondido, CA 92029
1551 Via Del Corvo San Marcos, CA 92078	225 E 3rd Ave Escondido, CA 92025
1552 Copper Ct San Marcos, CA 92078	2280 Wardlow Cir #100 Corona, CA 92880
1553 Via Allondra San Marcos, CA 92078	2280 Wardlow Cir Corona, CA 92880
1554 Black Walnut Dr San Marcos, CA 92078	2300 Harveson Pl Escondido, CA 92029
1554 Copper Ct San Marcos, CA 92078	2310 Aldergrove Ave Escondido, CA 92029
1555 N Colonial Ter #400 Arlington, VA 22209	232 Sarah Ave Placentia, CA 92870
1556 Black Walnut Dr San Marcos, CA 92078	2320 Auto Park Way Escondido, CA 92029
1556 Camino Del Arroyo Dr San Marcos, CA 92078	2324 Auto Park Way Escondido, CA 92029
1556 Copper Ct San Marcos, CA 92078	2324 Harmony Grove Rd Escondido, CA 92029
1558 Black Walnut Dr San Marcos, CA 92078	2327 Harmony Grove Rd Escondido, CA 92029
1558 Copper Ct San Marcos, CA 92078	2328 Auto Park Way Escondido, CA 92029

600 NOTIFICATION LIST

1560 Black Walnut Dr San Marcos, CA 92078	233 San Felipe Way Novato, CA 94945
1560 Eden Ct San Marcos, CA 92078	2332 Auto Park Way Escondido, CA 92029
1560 Via Del Corvo San Marcos, CA 92078	2336 Auto Park Way Escondido, CA 92029
1560 W Mission Rd Escondido, CA 92029	2337 Auto Park Way Escondido, CA 92029
1562 Black Walnut Dr San Marcos, CA 92078	2344 Auto Park Way Escondido, CA 92029
1562 Eden Ct San Marcos, CA 92078	2346 Harmony Grove Rd Escondido, CA 92029
1564 Black Walnut Dr San Marcos, CA 92078	2357 Auto Park Way Escondido, CA 92029
1564 Eden Ct San Marcos, CA 92078	2360 Lindbergh St Auburn, CA 95602
1566 Black Walnut Dr San Marcos, CA 92078	2361 Auto Park Way Escondido, CA 92029
1568 Black Walnut Dr San Marcos, CA 92078	2364 Auto Park Way Escondido, CA 92029
1568 Eden Ct San Marcos, CA 92078	2365 Gillingham Cir Thousand Oaks, CA 91362
1570 Black Walnut Dr San Marcos, CA 92078	2366 Auto Park Way Escondido, CA 92029
1570 Eden Ct San Marcos, CA 92078	2368 Auto Park Way Escondido, CA 92029
1571 San Elijo Rd San Marcos, CA 92078	2382 Harmony Grove Rd Escondido, CA 92029
1572 Black Walnut Dr San Marcos, CA 92078	2400 Harmony Grove Rd Escondido, CA 92029
1573 Eden Ct San Marcos, CA 92078	2400 Kauana Loa Dr Escondido, CA 92029
1574 Black Walnut Dr San Marcos, CA 92078	2402 Auto Park Way Escondido, CA 92029
1574 Mission Rd Escondido, CA 92029	2406 Auto Park Way Escondido, CA 92029
1576 Black Walnut Dr San Marcos, CA 92078	241 Market Pl Escondido, CA 92029
1576 Eden Ct San Marcos, CA 92078	2410 Auto Park Way Escondido, CA 92029
1577 Eden Ct San Marcos, CA 92078	2414 Auto Park Way Escondido, CA 92029
1578 Black Walnut Dr San Marcos, CA 92078	2415 Auto Park Way Escondido, CA 92029
1578 Eden Ct San Marcos, CA 92078	2418 Auto Park Way Escondido, CA 92029
1579 Eden Ct San Marcos, CA 92078	2420 Shelter Island Dr San Diego, CA 92106
1580 Eden Ct San Marcos, CA 92078	2425 Auto Park Way Escondido, CA 92029
1581 Eden Ct San Marcos, CA 92078	24291 Three Springs Rd Hemet, CA 92545
1582 W San Marcos Blvd San Marcos, CA 92078	24291 Threesprings Rd Hemet, CA 92545
1583 Eden Ct San Marcos, CA 92078	243 S Escondido Blvd #331 Escondido, CA 92025
1583 Rock Springs Rd San Marcos, CA 92069	2439 W Coast Hwy #200 Newport Beach, CA 92663
1586 W San Marcos Blvd San Marcos, CA 92078	2445 El Sereno Way Vista, CA 92083
1590 W San Marcos Blvd San Marcos, CA 92078	2486 San Clemente Ave Vista, CA 92084
15935 Spring Oaks Rd #1 Eljon, CA 92021	2490 Newcastle Ave Cardiff, CA 92007
1597 Dawson Dr Vista, CA 92081	250 E Parkcenter Blvd Boise, ID 83706
160 Industrial St #200 San Marcos, CA 92078	250 El Camino Real #210 Tustin, CA 92780
1600 Huntington Dr S Pasadena, CA 91030	250 Ximeno Ave Long Beach, CA 90803
1601 Via Cancion San Marcos, CA 92078	2505 Pesquera Dr Long Beach, CA 90049
16010 Camino Del Sur San Diego, CA 92127	2506 Market St San Diego, CA 92102
1602 Via Cancion San Marcos, CA 92078	2516 Luciernaga St Carlsbad, CA 92009
1605 Hunsaker St Oceanside, CA 92054	2525 Old Highway 395 Fallbrook, CA 92028
1608 Via Del Corvo San Marcos, CA 92078	2526 Plumfield Ln Katy, TX 77450
1611 Via Cancion San Marcos, CA 92078	2528 N Twin Oaks Valley Rd San Marcos, CA 92069
1614 Island Dr San Marcos, CA 92078	2529 Kauana Loa Dr Escondido, CA 92029
1618 Via Allondra San Marcos, CA 92078	2530 Kauana Loa Dr Escondido, CA 92029
16189 Cayenne Creek Pl San Diego, CA 92127	2553 Abedul St Carlsbad, CA 92009
1620 Via Cancion San Marcos, CA 92078	2557 Kauana Loa Dr Escondido, CA 92029
1620 W Mission Rd Escondido, CA 92029	25672 La Cima Laguna Niguel, CA 92677
1623 Calle Venado San Marcos, CA 92078	2573 Kauana Loa Dr Escondido, CA 92029
1623 Via Cancion San Marcos, CA 92078	260 Landis Ave Chula Vista, CA 91910
1624 Avery Rd San Marcos, CA 92078	2600 Citadel Plaza Dr #125 Houston, TX 77008
1625 Via Allondra San Marcos, CA 92078	2603 Kauana Loa Dr Escondido, CA 92029
1626 Avery Rd San Marcos, CA 92078	2605 Kauana Loa Dr Escondido, CA 92029
1626 Via Del Corvo San Marcos, CA 92078	2607 Kauana Loa Dr Escondido, CA 92029
1627 Via Allondra San Marcos, CA 92078	2610 Kauana Loa Dr Escondido, CA 92029

600 NOTIFICATION LIST

1628 Avery Rd San Marcos, CA 92078	2623 Kauana Loa Dr Escondido, CA 92029
1629 Via Allondra San Marcos, CA 92078	2639 Kauana Loa Dr Escondido, CA 92029
1630 Avery Rd San Marcos, CA 92078	2640 Harmony Heights Rd Escondido, CA 92029
1630 Mission Rd Escondido, CA 92029	2643 Harmony Heights Rd Escondido, CA 92029
1632 Avery Rd San Marcos, CA 92078	2645 Kauana Loa Dr Escondido, CA 92029
1634 Avery Rd San Marcos, CA 92078	2653 Obelisco Pl Carlsbad, CA 92009
1635 Via Del Corvo San Marcos, CA 92078	2655 Kauana Loa Dr Escondido, CA 92029
1636 Avery Rd San Marcos, CA 92078	2657 Freshly Brewed Ct Henderson, NV 89052
1636 Via Allondra San Marcos, CA 92078	2658 Del Mar Heights Rd #267 Del Mar, CA 92014
1638 Avery Rd San Marcos, CA 92078	2664 Harmony Heights Rd Escondido, CA 92029
1640 Avery Rd San Marcos, CA 92078	2665 Harmony Heights Rd Escondido, CA 92029
1640 Via Cancion San Marcos, CA 92078	2668 Narcissus Dr San Diego, CA 92106
1641 Avery Rd San Marcos, CA 92078	2674 Kauana Loa Dr Escondido, CA 92029
1641 Sagewood Way San Marcos, CA 92078	2677 Kauana Loa Dr Escondido, CA 92029
1642 Avery Rd San Marcos, CA 92078	2703 El Rocko Rd Escondido, CA 92029
1642 W San Marcos Blvd San Marcos, CA 92078	271 Redwood Ave Carlsbad, CA 92008
1644 Avery Rd San Marcos, CA 92078	2710 El Rocko Rd Escondido, CA 92029
1644 Sagewood Way San Marcos, CA 92078	2711 El Rocko Rd Escondido, CA 92029
1645 Avery Rd San Marcos, CA 92078	2720 Old Spanish Trl Escondido, CA 92025
1645 Calle Venado San Marcos, CA 92078	27258 Via Industria #B Temecula, CA 92590
1645 Milan Way San Marcos, CA 92078	2738 Harmony Heights Rd Escondido, CA 92029
1646 Avery Rd San Marcos, CA 92078	27405 Puerta Real #120 Mission Viejo, CA 92691
16465 Via Esprillo #150 San Diego, CA 92127	27451 Los Altos #210 Mission Viejo, CA 92691
1647 Avery Rd San Marcos, CA 92078	2750 Harmony Heights Rd Escondido, CA 92029
1647 Milan Way San Marcos, CA 92078	2762 Harmony Heights Rd Escondido, CA 92029
1647 Sagewood Way San Marcos, CA 92078	27718 N Twin Oaks Valley Rd San Marcos, CA 92069
1648 Avery Rd San Marcos, CA 92078	2774 Harmony Heights Rd Escondido, CA 92029
1648 Ord Way Oceanside, CA 92056	2784 W 15th St Yuma AZ 85364
1648 Sagewood Way San Marcos, CA 92078	2790 Gateway Rd Carlsbad, CA 92009
1648 Via Allondra San Marcos, CA 92078	2800 E Lake St Minneapolis, MN 55406
1649 Milan Way San Marcos, CA 92078	2801 Side Saddle Ln Escondido, CA 92029
1649 Sagewood Way San Marcos, CA 92078	2802 Carlsbad Blvd Carlsbad, CA 92008
1650 Avery Rd San Marcos, CA 92078	2808 Dove Tail Dr San Marcos, CA 92078
1650 Sagewood Way San Marcos, CA 92078	2820 E Cove Ct Maineville, OH 45039
1650 W San Marcos Blvd San Marcos, CA 92078	2824 Piantino Cir San Diego, CA 92108
1651 Milan Way San Marcos, CA 92078	2826 Livery Pl Escondido, CA 92029
1651 Sagewood Way San Marcos, CA 92078	2827 Livery Pl Escondido, CA 92029
1652 Avery Rd San Marcos, CA 92078	2834 Livery Pl Escondido, CA 92029
1652 Portside Pl San Marcos, CA 92078	2839 Livery Pl Escondido, CA 92029
1652 Sagewood Way San Marcos, CA 92078	2846 Livery Pl Escondido, CA 92029
1652 Via Cancion San Marcos, CA 92078	2850 Livery Pl Escondido, CA 92029
1653 Milan Way San Marcos, CA 92078	2851 Livery Pl Escondido, CA 92029
1653 Sagewood Way San Marcos, CA 92078	2858 Carlsbad Blvd Carlsbad, CA 92008
1654 Avery Rd San Marcos, CA 92078	2861 Womble Rd San Diego, CA 92106
1654 Sagewood Way San Marcos, CA 92078	2872 Livery Pl Escondido, CA 92029
1654 Via Del Corvo San Marcos, CA 92078	2873 Livery Pl Escondido, CA 92029
1655 Milan Way San Marcos, CA 92078	2880 Livery Pl Escondido, CA 92029
1655 Sagewood Way San Marcos, CA 92078	2890 Dartmouth Dr Oceanside, CA 92056
1655 Via Del Corvo San Marcos, CA 92078	2891 Livery Pl Escondido, CA 92029
1656 Avery Rd San Marcos, CA 92078	2892 Livery Pl Escondido, CA 92029
1656 Sagewood Way San Marcos, CA 92078	29413 Painted Desert Dr Menifee, CA 92584
1657 Milan Way San Marcos, CA 92078	2960 Sunset Hls Escondido, CA 92025
1657 Sagewood Way San Marcos, CA 92078	2968 Stable Pl Escondido, CA 92029

600 NOTIFICATION LIST

1658 Avery Rd San Marcos, CA 92078	2976 Stable Pl Escondido, CA 92029
1658 Sagewood Way San Marcos, CA 92078	298 Enterprise St Escondido, CA 92029
1659 Sagewood Way San Marcos, CA 92078	2982 Stable Pl Escondido, CA 92029
1660 Avery Rd San Marcos, CA 92078	2984 Hayloft Pl Escondido, CA 92029
1660 Sagewood Way San Marcos, CA 92078	2990 Hayloft Pl Escondido, CA 92029
1660 Trenton Way San Marcos, CA 92078	2990 Stable Pl Escondido, CA 92029
1661 Avery Rd San Marcos, CA 92078	2991 Hayloft Pl Escondido, CA 92029
1661 Sagewood Way San Marcos, CA 92078	3 Park Plaza #1700 Irvine, CA 92614
1661 Via Allondra San Marcos, CA 92078	3001 Red Hill Ave #B1-106 Costa Mesa, CA 92626
1661 Via Cancion San Marcos, CA 92078	301 Enterprise St Escondido, CA 92029
1662 Avery Rd San Marcos, CA 92078	301 Enterprise St, Ste. 01 Escondido, CA 92029
1662 Sagewood Way San Marcos, CA 92078	301 Enterprise St, Ste. 03 Escondido, CA 92029
1663 Avery Rd San Marcos, CA 92078	3010 Heirloom Pl Escondido, CA 92029
1663 Trenton Way San Marcos, CA 92078	3023 Mt Whitney Rd Escondido, CA 92029
1664 Avery Rd San Marcos, CA 92078	30333 Via Cuesta Arriba Bonsall, CA 92003
1664 Sagewood Way San Marcos, CA 92078	305 Enterprise St, Ste. 01 Escondido, CA 92029
1664 Trenton Way San Marcos, CA 92078	305 Enterprise St, Ste. 02 Escondido, CA 92029
16640 Dale Hollow Ct Morgan Hill, CA 95037	3050 Paseo Estribo Carlsbad, CA 92009
1665 Avery Rd San Marcos, CA 92078	3052 Heirloom Pl Escondido, CA 92029
1667 Avery Rd San Marcos, CA 92078	3054 Maplewood Pl Escondido, CA 92027
1668 Avery Rd San Marcos, CA 92078	3056 Heirloom Pl Escondido, CA 92029
1668 Sagewood Way San Marcos, CA 92078	3060 Heirloom Pl Escondido, CA 92029
1668 Trenton Way San Marcos, CA 92078	3064 Eden Valley Ln Escondido, CA 92029
1668 Via Del Corvo San Marcos, CA 92078	3064 Heirloom Pl Escondido, CA 92029
1669 Avery Rd San Marcos, CA 92078	3068 Heirloom Pl Escondido, CA 92029
1670 Avery Rd San Marcos, CA 92078	3072 Heirloom Pl Escondido, CA 92029
1670 Reflection St San Marcos, CA 92078	3076 Heirloom Pl Escondido, CA 92029
1670 Sagewood Way San Marcos, CA 92078	3080 Heirloom Pl Escondido, CA 92029
1671 Avery Rd San Marcos, CA 92078	3081 Heirloom Pl Escondido, CA 92029
1671 Trenton Way San Marcos, CA 92078	309 Enterprise St, Ste. 01 Escondido, CA 92029
1671 Via Del Corvo San Marcos, CA 92078	309 Enterprise St, Ste. 02 Escondido, CA 92029
1672 Avery Rd San Marcos, CA 92078	3090 Heirloom Pl Escondido, CA 92029
1672 Sagewood Way San Marcos, CA 92078	3090 Mimulus Pl Escondido, CA 92029
1672 Trenton Way San Marcos, CA 92078	3096 Heirloom Pl Escondido, CA 92029
1673 Avery Rd San Marcos, CA 92078	310 S Twin Oaks Valley Rd #107-183 San Marcos, CA 92078
1674 Avery Rd San Marcos, CA 92078	3100 Donald Douglas Loop N Santa Monica, CA 90405
1674 Sagewood Way San Marcos, CA 92078	311 Enterprise St #1 Escondido, CA 92029
1674 Via Del Corvo San Marcos, CA 92078	311 Enterprise St Escondido, CA 92029
1675 Avery Rd San Marcos, CA 92078	311 Enterprise St, Ste. 01 Escondido, CA 92029
1675 Trenton Way San Marcos, CA 92078	311 Enterprise St, Ste. 02 Escondido, CA 92029
1676 Avery Rd San Marcos, CA 92078	312 Borden Rd San Marcos, CA 92069
1676 Trenton Way San Marcos, CA 92078	31231 Via Mariposa Ct Bonsall, CA 92003
1677 Avery Rd San Marcos, CA 92078	3139 Mt Whitney Rd Escondido, CA 92029
1677 Sandyrock Ln San Jose, CA 95125	315 S Coast Highway 101 #U12 Encinitas, CA 92024
1678 Avery Rd San Marcos, CA 92078	315 S Coast Hwy #U78 Encinitas, CA 92024
1678 Country Club Dr Escondido, CA 92029	315 S Coast Hwy 101 #U12 Encinitas, CA 92024
1678 Sagewood Way San Marcos, CA 92078	3151 Mt Whitney Rd Escondido, CA 92029
1679 Avery Rd San Marcos, CA 92078	3177 Wildflower Smt Encinitas, CA 92024
1679 Trenton Way San Marcos, CA 92078	3209 Lionshead Ave Carlsbad, CA 92010
1680 Avery Rd San Marcos, CA 92078	321 Milk Barn Ln Cookeville Tn 38506
1680 Sagewood Way San Marcos, CA 92078	3210 Grey Hawk Ct Carlsbad, CA 92010
1680 Trenton Way San Marcos, CA 92078	3211 Business Park Dr Vista, CA 92081
1681 Avery Rd San Marcos, CA 92078	3211 Mt Whitney Rd Escondido, CA 92029

600 NOTIFICATION LIST

1682 Avery Rd San Marcos, CA 92078	3214 Grey Hawk Ct Carlsbad, CA 92010
1682 Sagewood Way San Marcos, CA 92078	3216 Grey Hawk Ct Carlsbad, CA 92010
1683 Avery Rd San Marcos, CA 92078	322 Encinitas Blvd #200 Encinitas, CA 92024
1683 Trenton Way San Marcos, CA 92078	3220 Grey Hawk Ct Carlsbad, CA 92010
1684 Avery Rd San Marcos, CA 92078	3222 Grey Hawk Ct Carlsbad, CA 92010
1684 Sagewood Way San Marcos, CA 92078	3223 Mt Whitney Rd Escondido, CA 92029
1684 Trenton Way San Marcos, CA 92078	3225 Business Park Dr Vista, CA 92081
1685 Avery Rd San Marcos, CA 92078	3226 Grey Hawk Ct Carlsbad, CA 92010
1686 Avery Rd San Marcos, CA 92078	3228 Grey Hawk Ct Carlsbad, CA 92010
1686 Sagewood Way San Marcos, CA 92078	3231 Business Park Dr Vista, CA 92081
1687 Avery Rd San Marcos, CA 92078	3232 Grey Hawk Ct Carlsbad, CA 92010
1687 Sagewood Way San Marcos, CA 92078	3234 Grey Hawk Ct Carlsbad, CA 92010
1687 Trenton Way San Marcos, CA 92078	3238 Grey Hawk Ct Carlsbad, CA 92010
16878 Quail Xing Ramona, CA 92065	3240 Grey Hawk Ct Carlsbad, CA 92010
1688 Avery Rd San Marcos, CA 92078	3244 Grey Hawk Ct Carlsbad, CA 92010
1688 Trenton Way San Marcos, CA 92078	3246 Grey Hawk Ct Carlsbad, CA 92010
1689 Avery Rd San Marcos, CA 92078	3250 Business Park Dr Vista, CA 92081
1689 Via Allondra San Marcos, CA 92078	3250 Grey Hawk Ct Carlsbad, CA 92010
1690 Avery Rd San Marcos, CA 92078	3251 Business Park Dr Vista, CA 92081
1690 Sagewood Way San Marcos, CA 92078	3254 Grey Hawk Ct Carlsbad, CA 92010
1691 Avery Rd San Marcos, CA 92078	3256 Grey Hawk Ct Carlsbad, CA 92010
1691 Sagewood Way San Marcos, CA 92078	3258 Grey Hawk Ct Carlsbad, CA 92010
1691 Trenton Way San Marcos, CA 92078	3262 Grey Hawk Ct Carlsbad, CA 92010
1692 Avery Rd San Marcos, CA 92078	3264 Grey Hawk Ct Carlsbad, CA 92010
1692 Trenton Way San Marcos, CA 92078	3265 Business Park Dr Vista, CA 92081
1693 Avery Rd San Marcos, CA 92078	3266 Grey Hawk Ct Carlsbad, CA 92010
1694 Avery Rd San Marcos, CA 92078	3267 Purer Rd Escondido, CA 92029
1694 Sagewood Way San Marcos, CA 92078	3270 Corporate View Dr Vista, CA 92081
16945 Camino San Bernardo San Diego, CA 92127	3270 Grey Hawk Ct Carlsbad, CA 92010
1695 Avery Rd San Marcos, CA 92078	3270 Westwood Dr Carlsbad, CA 92008
1695 Sagewood Way San Marcos, CA 92078	3271 Business Park Dr Vista, CA 92081
1695 Trenton Way San Marcos, CA 92078	3272 Grey Hawk Ct Carlsbad, CA 92010
1696 Avery Rd San Marcos, CA 92078	3274 Grey Hawk Ct Carlsbad, CA 92010
1696 Trenton Way San Marcos, CA 92078	3275 Corporate Vw Vista, CA 92081
1698 Sagewood Way San Marcos, CA 92078	3278 Grey Hawk Ct Carlsbad, CA 92010
1699 Trenton Way San Marcos, CA 92078	3280 Corporate Vw Vista, CA 92081
1700 Weatherwood Ct San Marcos, CA 92078	3280 Grey Hawk Ct Carlsbad, CA 92010
1701 Playa Vista San Marcos, CA 92078	3281 Business Park Dr Vista, CA 92081
1701 Weatherwood Ct Encinitas, CA 92024	3282 Grey Hawk Ct #14 Carlsbad, CA 92010
1701 Weatherwood Ct San Marcos, CA 92078	3282 Grey Hawk Ct Carlsbad, CA 92010
1702 Playa Vista San Marcos, CA 92078	3284 Grey Hawk Ct Carlsbad, CA 92010
1702 Weatherwood Ct San Marcos, CA 92078	3285 Corporate Vw Vista, CA 92081
1703 Azul Vista San Marcos, CA 92078	3288 Grey Hawk Ct Carlsbad, CA 92010
1704 Azul Vista San Marcos, CA 92078	3295 Business Park Dr Vista, CA 92081
1704 Gascony Rd Encinitas, CA 92024	330 Encinitas Blvd #201 Encinitas, CA 92024
1704 Weatherwood Ct San Marcos, CA 92078	3309 Rancho Famosa Carlsbad, CA 92009
1705 Cuadro Vis San Marcos, CA 92078	3310 Rancho Famosa Carlsbad, CA 92009
1705 San Elijo Rd S San Marcos, CA 92078	3313 Rancho Famosa Carlsbad, CA 92009
1705 Thorley Way San Marcos, CA 92078	3314 Rancho Famosa Carlsbad, CA 92009
1705 Weatherwood Ct San Marcos, CA 92078	3315 Rancho Carrizo Carlsbad, CA 92009
1706 Weatherwood Ct San Marcos, CA 92078	3316 Rancho Carrizo Carlsbad, CA 92009
1707 Thorley Way San Marcos, CA 92078	3317 Rancho Famosa Carlsbad, CA 92009
1707 Weatherwood Ct San Marcos, CA 92078	3318 Rancho Famosa Carlsbad, CA 92009

600 NOTIFICATION LIST

1708 Beamreach Pl Fort Collins Co 80524	3320 Rancho Carrizo Carlsbad, CA 92009
1708 Birchwood Dr San Marcos, CA 92069	33206 Ocean Bright Dana Point, CA 92629
1708 Kenwood Pl San Marcos, CA 92078	3321 Rancho Famosa Carlsbad, CA 92009
1708 Weatherwood Ct San Marcos, CA 92078	3322 Rancho Famosa Carlsbad, CA 92009
1709 Playa Vista San Marcos, CA 92078	3324 Rancho Carrizo Carlsbad, CA 92009
1709 Thorley Way San Marcos, CA 92078	3325 Rancho Famosa Carlsbad, CA 92009
1709 Weatherwood Ct San Marcos, CA 92078	3326 Rancho Famosa Carlsbad, CA 92009
1710 Elfin Forest Rd San Marcos, CA 92078	3328 Rancho Carrizo Carlsbad, CA 92009
1710 Kenwood Pl San Marcos, CA 92078	3329 Rancho Famosa Carlsbad, CA 92009
1710 Playa Vista San Marcos, CA 92078	3330 Rancho Famosa Carlsbad, CA 92009
1710 San Elijo Rd San Marcos, CA 92078	3334 Rancho Famosa Carlsbad, CA 92009
1710 Via Allondra San Marcos, CA 92078	3338 Rancho Famosa Carlsbad, CA 92009
1710 Weatherwood Ct San Marcos, CA 92078	335 Hemlock Ave Carlsbad, CA 92008
1711 Azul Vista San Marcos, CA 92078	3363 Wildflower Valley Dr Encinitas, CA 92024
1712 Azul Vista San Marcos, CA 92078	3416a Calif Ave Sw #107 Seattle Wa 98116
1712 Country Club Dr Escondido, CA 92029	3437 Don Arturo Dr Carlsbad, CA 92010
1712 Weatherwood Ct San Marcos, CA 92078	345 Kentfield Dr San Marcos, CA 92069
1713 Cuadro Vista San Marcos, CA 92078	3455 Stadium Pl San Diego, CA 92122
1713 Kenwood Pl San Marcos, CA 92078	3458 Mission Mesa Way San Diego, CA 92120
1713 Thorley Way San Marcos, CA 92078	3462 Ryan Dr Escondido, CA 92025
1714 Kenwood Pl San Marcos, CA 92078	3487 Milagros St San Diego, CA 92123
1714 Thorley Way San Marcos, CA 92078	3502 Sitio Espino Carlsbad, CA 92009
1714 Weatherwood Ct San Marcos, CA 92078	352 Anns Way Vista, CA 92083
1715 Kenwood Pl San Marcos, CA 92078	352 Compass Rd Oceanside, CA 92054
1715 Thorley Way San Marcos, CA 92078	3619 Claremont Dr Bakersfield, CA 93306
17150 Via Del Campo #101 San Diego, CA 92127	36429 Gambrel Gate Ct Winchester, CA 92596
1716 Kenwood Pl San Marcos, CA 92078	366 Edgewater Dr San Marcos, CA 92078
1716 Thorley Way San Marcos, CA 92078	3690 Hermitage Trl Rockford, IL 61114
1716 Weatherwood Ct San Marcos, CA 92078	3700 Spring St Paso Robles, CA 93446
1717 Brighton Hill Ct San Marcos, CA 92078	376 Trousdale Dr Chula Vista, CA 91910
1717 Kenwood Pl San Marcos, CA 92078	3800 W Wilson St #357 Banning, CA 92220
1717 Playa Vista San Marcos, CA 92078	3806 Mandy Way San Ramon, CA 94582
1717 Thorley Way San Marcos, CA 92078	3838 Camino Del Rio N #300 San Diego, CA 92108
1718 Kenwood Pl San Marcos, CA 92078	3888 Paducah Dr San Diego, CA 92117
1718 Playa Vista San Marcos, CA 92078	3890 Nobel Dr #1801 San Diego, CA 92122
1718 Thorley Way San Marcos, CA 92078	3917 Lago Di Grata Cir San Diego, CA 92130
1718 Weatherwood Ct San Marcos, CA 92078	3948 Stonebridge Ln Rancho Santa Fe, CA 92091
1719 Azul Vista San Marcos, CA 92078	3994 W Lehman Rd Tracy, CA 95304
1719 Thorley Way San Marcos, CA 92078	401 Bridoon Ter Encinitas, CA 92024
1720 Azul Vista San Marcos, CA 92078	401 N Sacramento St Orange, CA 92867
1720 Brighton Hill Ct San Marcos, CA 92078	4018 Lanark Ln Houston, TX 77025
1720 Thorley Way San Marcos, CA 92078	402 Wilshire Rd Oceanside, CA 92057
1720 Weatherwood Ct San Marcos, CA 92078	405 Avalon Dr Vista, CA 92084
1721 Cuadro Vis San Marcos, CA 92078	40643 Calle Katerine Temecula, CA 92591
1721 Kenwood Pl San Marcos, CA 92078	407 Pacific Ave Solana Beach, CA 92075
1721 Thorley Way San Marcos, CA 92078	4072 Garfield St Carlsbad, CA 92008
1722 Kenwood Pl San Marcos, CA 92078	41 San Marcos Ct Salinas, CA 93901
1722 Thorley Way San Marcos, CA 92078	411 Santa Marina Ct Escondido, CA 92029
1722 Weatherwood Ct San Marcos, CA 92078	4125 W Hood Ave #103 Burbank, CA 91505
1723 Thorley Way San Marcos, CA 92078	4132 Mentone Ave Culver City, CA 90232
1724 Kenwood Pl San Marcos, CA 92078	4136 Raya Way San Diego, CA 92122
1724 Thorley Way San Marcos, CA 92078	41707 Grand View Dr Murrieta, CA 92562
1724 Weatherwood Ct San Marcos, CA 92078	41729 Via Aregio Palm Desert, CA 92260

600 NOTIFICATION LIST

1725 Birchwood Dr San Marcos, CA 92069	41785 Enterprise Cir S Temecula, CA 92590
1725 Kenwood Pl San Marcos, CA 92078	41805 Albrae St Fremont, CA 94538
1725 Mission Rd Escondido, CA 92029	421 Venture St Escondido, CA 92029
1725 Playa Vista San Marcos, CA 92078	4247 Rancho Asoleado Dr Santa Barbara, CA 93110
1726 Cuadro Vista San Marcos, CA 92078	42574 Camelot Rd Temecula, CA 92592
1726 Elfin Forest Rd San Marcos, CA 92078	427 Venture St Escondido, CA 92029
1726 Mission Rd Escondido, CA 92029	427 Yankee Dr Brewster, MA 02631
1726 Playa Vista San Marcos, CA 92078	4312 Nw 120th Ave Coral Springs, Fl 33065
1726 Thorley Way San Marcos, CA 92078	435 Venture St Escondido, CA 92029
1726 W Mission Rd Escondido, CA 92029	4410 Longshore Way San Diego, CA 92130
1726 Weatherwood Ct San Marcos, CA 92078	443 Venture St Escondido, CA 92029
1727 Azul Vista San Marcos, CA 92078	446 Enterprise St Escondido, CA 92029
1727 Kenwood Pl San Marcos, CA 92078	4490 Philbrook Sq San Diego, CA 92130
1728 Azul Vista San Marcos, CA 92078	450 W Vista Way Vista, CA 92083
1728 Kenwood Pl San Marcos, CA 92078	454 Enterprise St Escondido, CA 92029
1728 Mission Rd Escondido, CA 92029	4554 Cape Cod Cir Carlsbad, CA 92010
1728 Thorley Way San Marcos, CA 92078	459 Lexington Cir Oceanside, CA 92057
1728 Via Allondra San Marcos, CA 92078	4593 Monroe Ave San Diego, CA 92115
1728 Weatherwood Ct San Marcos, CA 92078	4636 Via Huerto Santa Barbara, CA 93110
1729 Cuadro Vista San Marcos, CA 92078	4705 Paseo De Las Tortugas Torrance, CA 90505
17295 Prado Rd San Diego, CA 92128	4850 Monongahela St San Diego, CA 92117
1730 Kenwood Pl San Marcos, CA 92078	49 Discovery #250 Irvine, CA 92618
1730 Mission Rd Escondido, CA 92029	5 Chickadee Ln Aliso Viejo, CA 92656
1730 Thorley Way San Marcos, CA 92078	501 E El Camino Real #200 Encinitas, CA 92024
1730 Weatherwood Ct San Marcos, CA 92078	511 Bellagio Ter Long Beach, CA 90049
1731 Cuadro Vista San Marcos, CA 92078	511 Venture St Escondido, CA 92029
1731 Thorley Way San Marcos, CA 92078	511 Whalen Way Oxnard, CA 93036
1732 Kenwood Pl San Marcos, CA 92078	5112 Mintz Ln Ellicott City Md 21043
1732 Morgans Ave San Marcos, CA 92078	515 Camino De Orchidia Encinitas, CA 92024
1732 Weatherwood Ct San Marcos, CA 92078	519 Venture St Escondido, CA 92029
17327 Via Campo San Diego, CA 92127	523 Avenida Verde San Marcos, CA 92069
1733 Brighton Hill Ct San Marcos, CA 92078	527 Venture St Escondido, CA 92029
1733 Playa Vista San Marcos, CA 92078	5294 Foxhound Way San Diego, CA 92130
1733 Thorley Way San Marcos, CA 92078	5330 Carroll Canyon Rd #200 San Diego, CA 92121
1734 Cuadro Vista San Marcos, CA 92078	5370 Toscana Way #H219 San Diego, CA 92122
1734 Kenwood Pl San Marcos, CA 92078	540 Enterprise St Escondido, CA 92029
1734 Morgans Ave San Marcos, CA 92078	5402 W Electra Ln Glendale, AZ 85310
1734 Thorley Way San Marcos, CA 92078	555 Enterprise St Escondido, CA 92029
1735 Thorley Way San Marcos, CA 92078	555 W Beech St San Diego, CA 92101
1735 Via Allondra San Marcos, CA 92078	563 Enterprise St Escondido, CA 92029
1736 Azul Vista San Marcos, CA 92078	5650 E River Rd Grand Island, NY 14072
1736 Kenwood Pl San Marcos, CA 92078	571 Enterprise St Escondido, CA 92029
1736 Morgans Ave San Marcos, CA 92078	5750 Fleet St Carlsbad, CA 92008
1736 Thorley Way San Marcos, CA 92078	578 Enterprise St Escondido, CA 92029
1737 Tara Way San Marcos, CA 92078	579 Enterprise St Escondido, CA 92029
1737 Thorley Way San Marcos, CA 92078	5790 Fleet St #140 Carlsbad, CA 92008
1738 Morgans Ave San Marcos, CA 92078	5820 Oberlin Dr #201 San Diego, CA 92121
1738 Thorley Way San Marcos, CA 92078	591 Camino De La Reina #616 San Diego, CA 92108
1738 W Mission Rd Escondido, CA 92029	5918 Stoneridge Mall Rd Pleasanton, CA 94588
1740 Kenwood Pl San Marcos, CA 92078	5940 Darwin Ct Carlsbad, CA 92008
1740 Morgans Ave San Marcos, CA 92078	5950 El Camino Real Carlsbad, CA 92008
1740 Thorley Way San Marcos, CA 92078	5984 Shaw Lopez Row San Diego, CA 92121
1741 Playa Vista San Marcos, CA 92078	600 California St #900 San Francisco, CA 94108

600 NOTIFICATION LIST

1741 Tara Way San Marcos, CA 92078	6004 Rancho Bravado Carlsbad, CA 92009
1742 Cuadro Vista San Marcos, CA 92078	6008 Rancho Bravado Carlsbad, CA 92009
1742 Hermosita Dr San Marcos, CA 92078	6011 Mission Gorge Rd San Diego, CA 92120
1742 Kenwood Pl San Marcos, CA 92078	6011 Villa Medici Bonsall, CA 92003
1742 Morgans Ave San Marcos, CA 92078	605 Venture St Escondido, CA 92029
1742 Old Glen St San Marcos, CA 92078	609 Canyon Greens Dr Las Vegas, NV 89144
1743 Cuadro Vista San Marcos, CA 92078	610 Alpine Way Escondido, CA 92029
1744 Kenwood Pl San Marcos, CA 92078	6118 Paseo Delicias; P O Box 1651 Rancho Santa Fe, CA 92067
1744 Morgans Ave San Marcos, CA 92078	6118 Rancho Brida Carlsbad, CA 92009
1744 Old Glen St San Marcos, CA 92078	613 Navigator Ct Carlsbad, CA 92011
1745 Tara Way San Marcos, CA 92078	615 Venture St Escondido, CA 92029
1746 Morgans Ave San Marcos, CA 92078	6183 Paseo Del Norte #160 Carlsbad, CA 92011
1746 Tara Way San Marcos, CA 92078	6186 College Ave San Diego, CA 92120
1746 Thorley Way San Marcos, CA 92078	620 Alpine Way Escondido, CA 92029
1748 Kenwood Pl San Marcos, CA 92078	6208 Sidney Ln Mckinney, TX 75070
1748 Morgans Ave San Marcos, CA 92078	622 Aero Way Escondido, CA 92029
1748 Old Glen St San Marcos, CA 92078	6228 Cottonwood St Mc Lean, VA 22101
1749 Playa Vista San Marcos, CA 92078	625 Venture St Escondido, CA 92029
1749 Tara Way San Marcos, CA 92078	6256 Sunrose Crest Way San Diego, CA 92130
1750 Cuadro Vista San Marcos, CA 92078	626 E State St #1903 Milwaukee, WI 53202
1750 Kenwood Pl San Marcos, CA 92078	628 Woodland Pkwy San Marcos, CA 92069
1750 Morgans Ave San Marcos, CA 92078	629 Alpine Way Escondido, CA 92029
1750 Old Glen St San Marcos, CA 92078	630 Alpine Way Escondido, CA 92029
1750 San Pablo Dr San Marcos, CA 92078	630 Enterprise St Escondido, CA 92029
1750 Tara Way San Marcos, CA 92078	6300 Wilshire Blvd #1800 Long Beach, CA 90048
1751 Cuadro Vista San Marcos, CA 92078	631 Enterprise St Escondido, CA 92029
1751 Via Allondra San Marcos, CA 92078	6310 Alamo Ave St Louis Mo 63105
1752 Kenwood Pl San Marcos, CA 92078	632 Aero Way Escondido, CA 92029
1752 Morgans Ave San Marcos, CA 92078	6339 W Sweetwater Ave Glendale, AZ 85304
1752 Old Glen St San Marcos, CA 92078	635 Venture St Escondido, CA 92029
1752 Via Allondra San Marcos, CA 92078	637 S Rancho Santa Fe Rd San Marcos, CA 92078
1753 Tara Way San Marcos, CA 92078	6373 Paseo Aspada Carlsbad, CA 92009
1754 Kenwood Pl San Marcos, CA 92078	6375 Paseo Potrero Carlsbad, CA 92009
1754 Morgans Ave San Marcos, CA 92078	6389 Quail Run St San Diego, CA 92130
1754 Old Glen St San Marcos, CA 92078	640 Alpine Way Escondido, CA 92029
1754 Tara Way San Marcos, CA 92078	641 Ingleside Pl Escondido, CA 92026
1756 Burbury Way San Marcos, CA 92078	6429 Cayenne Ln Carlsbad, CA 92009
1756 Morgans Ave San Marcos, CA 92078	644 Hartford St Chula Vista, CA 91913
1756 Old Glen St San Marcos, CA 92078	645 Catalina Rd Fullerton, CA 92835
1757 Playa Vista San Marcos, CA 92078	645 Rancho Santa Fe Rd San Marcos, CA 92078
1757 Tara Way San Marcos, CA 92078	646 Liquid Amber Way San Marcos, CA 92078
1758 Cuadro Vista San Marcos, CA 92078	646 Terrace Dr Grand Junction, Oo 81507
1758 Don Lee Pl Escondido, CA 92029	647 Hymettus Ave Encinitas, CA 92024
1758 Kenwood Pl San Marcos, CA 92078	647 Liquid Amber Way San Marcos, CA 92078
1758 Morgans Ave San Marcos, CA 92078	649 Alpine Way Escondido, CA 92029
1758 Old Glen St San Marcos, CA 92078	650 Alpine Way Escondido, CA 92029
1758 Tara Way San Marcos, CA 92078	650 Liquid Amber Way San Marcos, CA 92078
1759 Cuadro Vista San Marcos, CA 92078	650 S Ranch Fe Rd San Marcos, CA 92069
1760 Morgans Ave San Marcos, CA 92078	650 S Rancho Santa Fe Rd #1 San Marcos, CA 92078
1760 Old Glen St San Marcos, CA 92078	650 S Rancho Santa Fe Rd #101 San Marcos, CA 92078
1761 Tara Way San Marcos, CA 92078	650 S Rancho Santa Fe Rd #102 San Marcos, CA 92078
1761 Willowhaven Rd Encinitas, CA 92024	650 S Rancho Santa Fe Rd #106 San Marcos, CA 92078
1762 Morgans Ave San Marcos, CA 92078	650 S Rancho Santa Fe Rd #109 San Marcos, CA 92078

600 NOTIFICATION LIST

1762 Old Glen St San Marcos, CA 92078	650 S Rancho Santa Fe Rd #113 San Marcos, CA 92078
1762 Tara Way San Marcos, CA 92078	650 S Rancho Santa Fe Rd #116 San Marcos, CA 92078
1764 Morgans Ave San Marcos, CA 92078	650 S Rancho Santa Fe Rd #117 San Marcos, CA 92078
1764 Old Glen St San Marcos, CA 92078	650 S Rancho Santa Fe Rd #121 San Marcos, CA 92078
1765 Old Glen St San Marcos, CA 92078	650 S Rancho Santa Fe Rd #125 San Marcos, CA 92078
1765 Playa Vista San Marcos, CA 92078	650 S Rancho Santa Fe Rd #126 San Marcos, CA 92078
1765 Tara Way San Marcos, CA 92078	650 S Rancho Santa Fe Rd #130 San Marcos, CA 92078
1766 Tara Way San Marcos, CA 92078	650 S Rancho Santa Fe Rd #133 San Marcos, CA 92078
1767 Old Glen St San Marcos, CA 92078	650 S Rancho Santa Fe Rd #147 San Marcos, CA 92078
1768 Morgans Ave San Marcos, CA 92078	650 S Rancho Santa Fe Rd #152 San Marcos, CA 92078
1768 Old Glen St San Marcos, CA 92078	650 S Rancho Santa Fe Rd #157 San Marcos, CA 92078
1769 Tara Way San Marcos, CA 92078	650 S Rancho Santa Fe Rd #164 San Marcos, CA 92078
1769 Via Allondra San Marcos, CA 92078	650 S Rancho Santa Fe Rd #168 San Marcos, CA 92078
1770 Morgans Ave San Marcos, CA 92078	650 S Rancho Santa Fe Rd #178 San Marcos, CA 92078
1770 Old Glen St San Marcos, CA 92078	650 S Rancho Santa Fe Rd #182 San Marcos, CA 92078
1770 Tara Way San Marcos, CA 92078	650 S Rancho Santa Fe Rd #192 San Marcos, CA 92078
1771 Grain Mill Rd San Marcos, CA 92078	650 S Rancho Santa Fe Rd #195 San Marcos, CA 92078
1771 Old Glen St San Marcos, CA 92078	650 S Rancho Santa Fe Rd #198 San Marcos, CA 92078
1772 Morgans Ave San Marcos, CA 92078	650 S Rancho Santa Fe Rd #203 San Marcos, CA 92078
1772 Old Glen St San Marcos, CA 92078	650 S Rancho Santa Fe Rd #207 San Marcos, CA 92078
1773 Grain Mill Rd San Marcos, CA 92078	650 S Rancho Santa Fe Rd #221 San Marcos, CA 92078
1773 Old Glen St San Marcos, CA 92078	650 S Rancho Santa Fe Rd #225 San Marcos, CA 92078
1773 Playa Vista San Marcos, CA 92078	650 S Rancho Santa Fe Rd #226 San Marcos, CA 92078
1773 Tara Way San Marcos, CA 92078	650 S Rancho Santa Fe Rd #230 San Marcos, CA 92078
1774 Grain Mill Rd San Marcos, CA 92078	650 S Rancho Santa Fe Rd #237 San Marcos, CA 92078
1774 Morgans Ave San Marcos, CA 92078	650 S Rancho Santa Fe Rd #238 San Marcos, CA 92078
1774 Old Glen St San Marcos, CA 92078	650 S Rancho Santa Fe Rd #239 San Marcos, CA 92078
1774 Tara Way San Marcos, CA 92078	650 S Rancho Santa Fe Rd #24 San Marcos, CA 92078
1775 Grain Mill Rd San Marcos, CA 92078	650 S Rancho Santa Fe Rd #244 San Marcos, CA 92078
1776 Country Club Dr Escondido, CA 92029	650 S Rancho Santa Fe Rd #249 San Marcos, CA 92078
1776 Old Glen St San Marcos, CA 92078	650 S Rancho Santa Fe Rd #25 San Marcos, CA 92078
1777 Grain Mill Rd San Marcos, CA 92078	650 S Rancho Santa Fe Rd #256 San Marcos, CA 92078
1777 Tara Way San Marcos, CA 92078	650 S Rancho Santa Fe Rd #257 San Marcos, CA 92078
17778 Plaza Acosta San Diego, CA 92128	650 S Rancho Santa Fe Rd #264 San Marcos, CA 92078
1778 Grain Mill Rd San Marcos, CA 92078	650 S Rancho Santa Fe Rd #27 San Marcos, CA 92078
1778 Morgans Ave San Marcos, CA 92078	650 S Rancho Santa Fe Rd #276 San Marcos, CA 92078
1778 Old Glen St San Marcos, CA 92078	650 S Rancho Santa Fe Rd #278 San Marcos, CA 92078
1778 Tara Way San Marcos, CA 92078	650 S Rancho Santa Fe Rd #289 San Marcos, CA 92078
1780 Grain Mill Rd San Marcos, CA 92078	650 S Rancho Santa Fe Rd #296 San Marcos, CA 92078
1780 Morgans Ave San Marcos, CA 92078	650 S Rancho Santa Fe Rd #3 San Marcos, CA 92078
1780 Old Glen St San Marcos, CA 92078	650 S Rancho Santa Fe Rd #306 San Marcos, CA 92078
1781 Grain Mill Rd San Marcos, CA 92078	650 S Rancho Santa Fe Rd #318 San Marcos, CA 92078
1781 Playa Vista San Marcos, CA 92078	650 S Rancho Santa Fe Rd #324 San Marcos, CA 92078
1781 Tara Way San Marcos, CA 92078	650 S Rancho Santa Fe Rd #327 San Marcos, CA 92078
1782 Morgans Ave San Marcos, CA 92078	650 S Rancho Santa Fe Rd #33 San Marcos, CA 92078
1782 Old Glen St San Marcos, CA 92078	650 S Rancho Santa Fe Rd #335 San Marcos, CA 92078
1782 Tara Way San Marcos, CA 92078	650 S Rancho Santa Fe Rd #337 San Marcos, CA 92078
1784 Grain Mill Rd San Marcos, CA 92078	650 S Rancho Santa Fe Rd #338 San Marcos, CA 92078
1784 Morgans Ave San Marcos, CA 92078	650 S Rancho Santa Fe Rd #339 San Marcos, CA 92078
1784 Old Glen St San Marcos, CA 92078	650 S Rancho Santa Fe Rd #34 San Marcos, CA 92078
1785 Grain Mill Rd San Marcos, CA 92078	650 S Rancho Santa Fe Rd #341 San Marcos, CA 92078
1786 Old Glen St San Marcos, CA 92078	650 S Rancho Santa Fe Rd #344 San Marcos, CA 92078
1787 Swallowtail Rd Encinitas, CA 92024	650 S Rancho Santa Fe Rd #35 San Marcos, CA 92078

600 NOTIFICATION LIST

1788 Morgans Ave San Marcos, CA 92078	650 S Rancho Santa Fe Rd #350 San Marcos, CA 92078
1788 Old Glen St San Marcos, CA 92078	650 S Rancho Santa Fe Rd #351 San Marcos, CA 92078
1789 Playa Vista San Marcos, CA 92078	650 S Rancho Santa Fe Rd #353 San Marcos, CA 92078
179 Calle Magdalena #201 Encinitas, CA 92024	650 S Rancho Santa Fe Rd #354 San Marcos, CA 92078
1790 Morgans Ave San Marcos, CA 92078	650 S Rancho Santa Fe Rd #355 San Marcos, CA 92078
1790 Old Glen St San Marcos, CA 92078	650 S Rancho Santa Fe Rd #358 San Marcos, CA 92078
1791 Old Glen St San Marcos, CA 92078	650 S Rancho Santa Fe Rd #359 San Marcos, CA 92078
1792 Old Glen St San Marcos, CA 92078	650 S Rancho Santa Fe Rd #361 San Marcos, CA 92078
1793 Old Glen St San Marcos, CA 92078	650 S Rancho Santa Fe Rd #366 San Marcos, CA 92078
1794 Old Glen St San Marcos, CA 92078	650 S Rancho Santa Fe Rd #367 San Marcos, CA 92078
1795 Old Glen St San Marcos, CA 92078	650 S Rancho Santa Fe Rd #368 San Marcos, CA 92078
1797 Old Glen St San Marcos, CA 92078	650 S Rancho Santa Fe Rd #370 San Marcos, CA 92078
1797 Playa Vista San Marcos, CA 92078	650 S Rancho Santa Fe Rd #371 San Marcos, CA 92078
18 Glenhaven Ln Irvine, CA 92620	650 S Rancho Santa Fe Rd #38 San Marcos, CA 92078
18 San Patricio Rancho Santa Margarita, CA 92688	650 S Rancho Santa Fe Rd #43 San Marcos, CA 92078
1801 Diamond St San Marcos, CA 92078	650 S Rancho Santa Fe Rd #45 San Marcos, CA 92078
1802 Don Lee Pl Escondido, CA 92029	650 S Rancho Santa Fe Rd #51 San Marcos, CA 92078
1804 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd #57 San Marcos, CA 92078
1805 Country Club Dr Escondido, CA 92029	650 S Rancho Santa Fe Rd #60 San Marcos, CA 92078
1806 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd #66 San Marcos, CA 92078
1808 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd #71 San Marcos, CA 92078
1808 Verano Vista San Marcos, CA 92078	650 S Rancho Santa Fe Rd #72 San Marcos, CA 92078
1809 Verano Vista San Marcos, CA 92078	650 S Rancho Santa Fe Rd #75 San Marcos, CA 92078
181 Daphne St Encinitas, CA 92024	650 S Rancho Santa Fe Rd #77 San Marcos, CA 92078
1810 Diamond St San Marcos, CA 92078	650 S Rancho Santa Fe Rd #82 San Marcos, CA 92078
1810 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd #87 San Marcos, CA 92078
1810 Lodgepole Rd San Marcos, CA 92078	650 S Rancho Santa Fe Rd #88 San Marcos, CA 92078
1812 Country Club Dr Escondido, CA 92029	650 S Rancho Santa Fe Rd #89 San Marcos, CA 92078
1812 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd #91 San Marcos, CA 92078
18133 Pacifica Ranch Dr Rancho Santa Fe, CA 92091	650 S Rancho Santa Fe Rd #93 San Marcos, CA 92078
1814 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd #94 San Marcos, CA 92078
1816 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd #98 San Marcos, CA 92078
1816 Verano Vista San Marcos, CA 92078	650 S Rancho Santa Fe Rd San Marcos, CA 92078
1817 Verano Vista San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 01 San Marcos, CA 92078
1818 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 02 San Marcos, CA 92078
1819 Via Gavilan San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 03 San Marcos, CA 92078
1820 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 04 San Marcos, CA 92078
1820 Melrose Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 05 San Marcos, CA 92078
1822 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 06 San Marcos, CA 92078
1824 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 07 San Marcos, CA 92078
1824 Verano Vista San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 08 San Marcos, CA 92078
1825 Diamond St San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 09 San Marcos, CA 92078
1825 Verano Vista San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 10 San Marcos, CA 92078
1826 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 100 San Marcos, CA 92078
1830 Commercial St Escondido, CA 92029	650 S Rancho Santa Fe Rd, Ste. 101 San Marcos, CA 92078
1830 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 102 San Marcos, CA 92078
1832 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 103 San Marcos, CA 92078
1833 Diamond St San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 104 San Marcos, CA 92078
1834 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 105 San Marcos, CA 92078
1836 Commercial St Escondido, CA 92029	650 S Rancho Santa Fe Rd, Ste. 106 San Marcos, CA 92078
1836 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 108 San Marcos, CA 92078
1837 Commercial St Escondido, CA 92029	650 S Rancho Santa Fe Rd, Ste. 109 San Marcos, CA 92078
18378 Calle Stellina Rancho Santa Fe, CA 92091	650 S Rancho Santa Fe Rd, Ste. 110 San Marcos, CA 92078

600 NOTIFICATION LIST

1838 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 112 San Marcos, CA 92078
1839 Tanglewood Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 113 San Marcos, CA 92078
184 Juan M Cruz Dr Santa Rita Gu 96915	650 S Rancho Santa Fe Rd, Ste. 114 San Marcos, CA 92078
1840 Commercial St Escondido, CA 92029	650 S Rancho Santa Fe Rd, Ste. 115 San Marcos, CA 92078
1840 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 116 San Marcos, CA 92078
1840 La Costa Meadows Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 117 San Marcos, CA 92078
1840 Windriver St San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 118 San Marcos, CA 92078
1841 Windriver St San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 119 San Marcos, CA 92078
1842 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 12 San Marcos, CA 92078
1842 Tanglewood Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 120 San Marcos, CA 92078
1843 Tanglewood Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 121 San Marcos, CA 92078
1844 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 122 San Marcos, CA 92078
1844 Windriver St San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 123 San Marcos, CA 92078
1845 Commercial St Escondido, CA 92029	650 S Rancho Santa Fe Rd, Ste. 124 San Marcos, CA 92078
1845 Lodgepole Rd San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 125 San Marcos, CA 92078
1845 Windriver St San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 126 San Marcos, CA 92078
1847 Tanglewood Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 127 San Marcos, CA 92078
1848 Commercial St Escondido, CA 92029	650 S Rancho Santa Fe Rd, Ste. 128 San Marcos, CA 92078
1848 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 129 San Marcos, CA 92078
1848 Windriver St San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 13 San Marcos, CA 92078
1849 Tanglewood Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 130 San Marcos, CA 92078
1850 Diamond St #105 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 131 San Marcos, CA 92078
1850 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 132 San Marcos, CA 92078
1850 Hacienda Dr Vista, CA 92081	650 S Rancho Santa Fe Rd, Ste. 133 San Marcos, CA 92078
1850 S Quail Run Cottonwood, AZ 86326	650 S Rancho Santa Fe Rd, Ste. 134 San Marcos, CA 92078
18500 Von Karman Ave #1100 Irvine, CA 92612	650 S Rancho Santa Fe Rd, Ste. 135 San Marcos, CA 92078
1851 Commercial St Escondido, CA 92029	650 S Rancho Santa Fe Rd, Ste. 136 San Marcos, CA 92078
18515 Old Coach Way Poway, CA 92064	650 S Rancho Santa Fe Rd, Ste. 137 San Marcos, CA 92078
1852 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 138 San Marcos, CA 92078
1853 Tanglewood Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 139 San Marcos, CA 92078
1854 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 14 San Marcos, CA 92078
1855 Commercial St Escondido, CA 92029	650 S Rancho Santa Fe Rd, Ste. 140 San Marcos, CA 92078
1855 Lodgepole Rd San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 142 San Marcos, CA 92078
1856 Commercial St Escondido, CA 92029	650 S Rancho Santa Fe Rd, Ste. 144 San Marcos, CA 92078
1856 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 145 San Marcos, CA 92078
1858 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 146 San Marcos, CA 92078
1860 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 147 San Marcos, CA 92078
1862 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 148 San Marcos, CA 92078
1863 Commercial St Escondido, CA 92029	650 S Rancho Santa Fe Rd, Ste. 149 San Marcos, CA 92078
1864 Commercial St Escondido, CA 92029	650 S Rancho Santa Fe Rd, Ste. 15 San Marcos, CA 92078
1864 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 151 San Marcos, CA 92078
1865 Lodgepole Rd San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 152 San Marcos, CA 92078
1866 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 153 San Marcos, CA 92078
1868 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 154 San Marcos, CA 92078
1870 Fairway Circle Dr San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 155 San Marcos, CA 92078
1873 Buckskin Gln Escondido, CA 92027	650 S Rancho Santa Fe Rd, Ste. 156 San Marcos, CA 92078
1873 Diamond St San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 157 San Marcos, CA 92078
1873 Sunbury St Escondido, CA 92026	650 S Rancho Santa Fe Rd, Ste. 158 San Marcos, CA 92078
18880 Von Karman Ave; Pmb 1500 Irvine, CA 92612	650 S Rancho Santa Fe Rd, Ste. 159 San Marcos, CA 92078
19004 E Mauna Loa Ave Glendora, CA 91740	650 S Rancho Santa Fe Rd, Ste. 16 San Marcos, CA 92078
1903 Citracado Pkwy Escondido, CA 92029	650 S Rancho Santa Fe Rd, Ste. 160 San Marcos, CA 92078
1903 San Marcos Blvd San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 161 San Marcos, CA 92078
1903 Wright Pl #220 Carlsbad, CA 92008	650 S Rancho Santa Fe Rd, Ste. 162 San Marcos, CA 92078

600 NOTIFICATION LIST

1904 Via Firenze Henderson, NV 89044	650 S Rancho Santa Fe Rd, Ste. 163 San Marcos, CA 92078
1905 Commercial St Escondido, CA 92029	650 S Rancho Santa Fe Rd, Ste. 164 San Marcos, CA 92078
1909 W San Marcos Blvd San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 165 San Marcos, CA 92078
1911 Aberdeen Ln Mountain View, CA 94043	650 S Rancho Santa Fe Rd, Ste. 166 San Marcos, CA 92078
1911 Glenridge Rd Escondido, CA 92027	650 S Rancho Santa Fe Rd, Ste. 167 San Marcos, CA 92078
1915 Briargate Pl Escondido, CA 92029	650 S Rancho Santa Fe Rd, Ste. 168 San Marcos, CA 92078
1915 Citracado Pkwy Escondido, CA 92029	650 S Rancho Santa Fe Rd, Ste. 169 San Marcos, CA 92078
1915 Commercial St Escondido, CA 92029	650 S Rancho Santa Fe Rd, Ste. 170 San Marcos, CA 92078
1915 W San Marcos Blvd San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 171 San Marcos, CA 92078
1916 Commercial St Escondido, CA 92029	650 S Rancho Santa Fe Rd, Ste. 172 San Marcos, CA 92078
1920 Citracado Pkwy Escondido, CA 92029	650 S Rancho Santa Fe Rd, Ste. 173 San Marcos, CA 92078
1921 San Marcos Blvd San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 174 San Marcos, CA 92078
1923 Commercial St Escondido, CA 92029	650 S Rancho Santa Fe Rd, Ste. 175 San Marcos, CA 92078
1924 Commercial St Escondido, CA 92029	650 S Rancho Santa Fe Rd, Ste. 176 San Marcos, CA 92078
1927 Bridgepointe Pkwy #234 San Mateo, CA 94404	650 S Rancho Santa Fe Rd, Ste. 177 San Marcos, CA 92078
1929 W San Marcos Blvd San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 178 San Marcos, CA 92078
1930 Citracado Pkwy Escondido, CA 92029	650 S Rancho Santa Fe Rd, Ste. 179 San Marcos, CA 92078
1930 Commercial St Escondido, CA 92029	650 S Rancho Santa Fe Rd, Ste. 18 San Marcos, CA 92078
1930 San Marcos Blvd, Ste. 278 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 180 San Marcos, CA 92078
1930 W San Marcos Blvd #100 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 181 San Marcos, CA 92078
1930 W San Marcos Blvd #101 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 182 San Marcos, CA 92078
1930 W San Marcos Blvd #102 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 183 San Marcos, CA 92078
1930 W San Marcos Blvd #104 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 184 San Marcos, CA 92078
1930 W San Marcos Blvd #105 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 185 San Marcos, CA 92078
1930 W San Marcos Blvd #108 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 186 San Marcos, CA 92078
1930 W San Marcos Blvd #109 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 187 San Marcos, CA 92078
1930 W San Marcos Blvd #11 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 188 San Marcos, CA 92078
1930 W San Marcos Blvd #110 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 189 San Marcos, CA 92078
1930 W San Marcos Blvd #111 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 19 San Marcos, CA 92078
1930 W San Marcos Blvd #117 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 190 San Marcos, CA 92078
1930 W San Marcos Blvd #118 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 191 San Marcos, CA 92078
1930 W San Marcos Blvd #120 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 192 San Marcos, CA 92078
1930 W San Marcos Blvd #121 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 193 San Marcos, CA 92078
1930 W San Marcos Blvd #122 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 194 San Marcos, CA 92078
1930 W San Marcos Blvd #125 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 195 San Marcos, CA 92078
1930 W San Marcos Blvd #126 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 196 San Marcos, CA 92078
1930 W San Marcos Blvd #127 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 198 San Marcos, CA 92078
1930 W San Marcos Blvd #13 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 199 San Marcos, CA 92078
1930 W San Marcos Blvd #133 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 201 San Marcos, CA 92078
1930 W San Marcos Blvd #138 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 202 San Marcos, CA 92078
1930 W San Marcos Blvd #141 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 203 San Marcos, CA 92078
1930 W San Marcos Blvd #144 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 204 San Marcos, CA 92078
1930 W San Marcos Blvd #146 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 205 San Marcos, CA 92078
1930 W San Marcos Blvd #147 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 207 San Marcos, CA 92078
1930 W San Marcos Blvd #151 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 208 San Marcos, CA 92078
1930 W San Marcos Blvd #152 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 209 San Marcos, CA 92078
1930 W San Marcos Blvd #153 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 21 San Marcos, CA 92078
1930 W San Marcos Blvd #154 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 210 San Marcos, CA 92078
1930 W San Marcos Blvd #159 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 211 San Marcos, CA 92078
1930 W San Marcos Blvd #16 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 212 San Marcos, CA 92078
1930 W San Marcos Blvd #160 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 213 San Marcos, CA 92078
1930 W San Marcos Blvd #161 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 214 San Marcos, CA 92078
1930 W San Marcos Blvd #162 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 215 San Marcos, CA 92078

600 NOTIFICATION LIST

1930 W San Marcos Blvd #163 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 216 San Marcos, CA 92078
1930 W San Marcos Blvd #166 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 217 San Marcos, CA 92078
1930 W San Marcos Blvd #167 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 218 San Marcos, CA 92078
1930 W San Marcos Blvd #168a San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 219 San Marcos, CA 92078
1930 W San Marcos Blvd #169 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 22 San Marcos, CA 92078
1930 W San Marcos Blvd #170 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 220 San Marcos, CA 92078
1930 W San Marcos Blvd #171 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 221 San Marcos, CA 92078
1930 W San Marcos Blvd #172 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 222 San Marcos, CA 92078
1930 W San Marcos Blvd #173 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 223 San Marcos, CA 92078
1930 W San Marcos Blvd #174 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 225 San Marcos, CA 92078
1930 W San Marcos Blvd #176 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 226 San Marcos, CA 92078
1930 W San Marcos Blvd #177 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 227 San Marcos, CA 92078
1930 W San Marcos Blvd #178 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 228 San Marcos, CA 92078
1930 W San Marcos Blvd #179 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 229 San Marcos, CA 92078
1930 W San Marcos Blvd #180 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 23 San Marcos, CA 92078
1930 W San Marcos Blvd #180a San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 230 San Marcos, CA 92078
1930 W San Marcos Blvd #181 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 231 San Marcos, CA 92078
1930 W San Marcos Blvd #182 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 232 San Marcos, CA 92078
1930 W San Marcos Blvd #183 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 233 San Marcos, CA 92078
1930 W San Marcos Blvd #184 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 234 San Marcos, CA 92078
1930 W San Marcos Blvd #186 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 235 San Marcos, CA 92078
1930 W San Marcos Blvd #187 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 236 San Marcos, CA 92078
1930 W San Marcos Blvd #188 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 237 San Marcos, CA 92078
1930 W San Marcos Blvd #189 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 238 San Marcos, CA 92078
1930 W San Marcos Blvd #190 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 239 San Marcos, CA 92078
1930 W San Marcos Blvd #191 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 24 San Marcos, CA 92078
1930 W San Marcos Blvd #192 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 240 San Marcos, CA 92078
1930 W San Marcos Blvd #193 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 241 San Marcos, CA 92078
1930 W San Marcos Blvd #194 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 242 San Marcos, CA 92078
1930 W San Marcos Blvd #195 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 243 San Marcos, CA 92078
1930 W San Marcos Blvd #197 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 244 San Marcos, CA 92078
1930 W San Marcos Blvd #198 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 245 San Marcos, CA 92078
1930 W San Marcos Blvd #20 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 246 San Marcos, CA 92078
1930 W San Marcos Blvd #201 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 247 San Marcos, CA 92078
1930 W San Marcos Blvd #204 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 248 San Marcos, CA 92078
1930 W San Marcos Blvd #206 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 249 San Marcos, CA 92078
1930 W San Marcos Blvd #207 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 25 San Marcos, CA 92078
1930 W San Marcos Blvd #208 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 251 San Marcos, CA 92078
1930 W San Marcos Blvd #209 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 252 San Marcos, CA 92078
1930 W San Marcos Blvd #211 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 253 San Marcos, CA 92078
1930 W San Marcos Blvd #212 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 255 San Marcos, CA 92078
1930 W San Marcos Blvd #212a San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 256 San Marcos, CA 92078
1930 W San Marcos Blvd #213 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 257 San Marcos, CA 92078
1930 W San Marcos Blvd #214 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 258 San Marcos, CA 92078
1930 W San Marcos Blvd #215 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 259 San Marcos, CA 92078
1930 W San Marcos Blvd #216 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 26 San Marcos, CA 92078
1930 W San Marcos Blvd #217 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 260 San Marcos, CA 92078
1930 W San Marcos Blvd #218 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 261 San Marcos, CA 92078
1930 W San Marcos Blvd #219 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 262 San Marcos, CA 92078
1930 W San Marcos Blvd #221 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 263 San Marcos, CA 92078
1930 W San Marcos Blvd #222 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 264 San Marcos, CA 92078
1930 W San Marcos Blvd #223 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 265 San Marcos, CA 92078
1930 W San Marcos Blvd #224 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 266 San Marcos, CA 92078

600 NOTIFICATION LIST

1930 W San Marcos Blvd #225 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 267 San Marcos, CA 92078
1930 W San Marcos Blvd #226 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 268 San Marcos, CA 92078
1930 W San Marcos Blvd #227 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 269 San Marcos, CA 92078
1930 W San Marcos Blvd #228 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 27 San Marcos, CA 92078
1930 W San Marcos Blvd #229 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 270 San Marcos, CA 92078
1930 W San Marcos Blvd #230 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 271 San Marcos, CA 92078
1930 W San Marcos Blvd #230a San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 272 San Marcos, CA 92078
1930 W San Marcos Blvd #230b San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 273 San Marcos, CA 92078
1930 W San Marcos Blvd #231 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 274 San Marcos, CA 92078
1930 W San Marcos Blvd #232 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 275 San Marcos, CA 92078
1930 W San Marcos Blvd #233 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 276 San Marcos, CA 92078
1930 W San Marcos Blvd #233a San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 277 San Marcos, CA 92078
1930 W San Marcos Blvd #233b San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 278 San Marcos, CA 92078
1930 W San Marcos Blvd #234 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 279 San Marcos, CA 92078
1930 W San Marcos Blvd #235 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 28 San Marcos, CA 92078
1930 W San Marcos Blvd #236 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 280 San Marcos, CA 92078
1930 W San Marcos Blvd #237 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 281 San Marcos, CA 92078
1930 W San Marcos Blvd #238 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 282 San Marcos, CA 92078
1930 W San Marcos Blvd #238a San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 283 San Marcos, CA 92078
1930 W San Marcos Blvd #239 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 285 San Marcos, CA 92078
1930 W San Marcos Blvd #240 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 286 San Marcos, CA 92078
1930 W San Marcos Blvd #241 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 287 San Marcos, CA 92078
1930 W San Marcos Blvd #243 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 288 San Marcos, CA 92078
1930 W San Marcos Blvd #244 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 289 San Marcos, CA 92078
1930 W San Marcos Blvd #246 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 29 San Marcos, CA 92078
1930 W San Marcos Blvd #250 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 290 San Marcos, CA 92078
1930 W San Marcos Blvd #254 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 291 San Marcos, CA 92078
1930 W San Marcos Blvd #255 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 292 San Marcos, CA 92078
1930 W San Marcos Blvd #257 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 293 San Marcos, CA 92078
1930 W San Marcos Blvd #258 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 294 San Marcos, CA 92078
1930 W San Marcos Blvd #259 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 295 San Marcos, CA 92078
1930 W San Marcos Blvd #26 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 296 San Marcos, CA 92078
1930 W San Marcos Blvd #261 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 297 San Marcos, CA 92078
1930 W San Marcos Blvd #262 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 298 San Marcos, CA 92078
1930 W San Marcos Blvd #267 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 299 San Marcos, CA 92078
1930 W San Marcos Blvd #268 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 30 San Marcos, CA 92078
1930 W San Marcos Blvd #270 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 300 San Marcos, CA 92078
1930 W San Marcos Blvd #272 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 301 San Marcos, CA 92078
1930 W San Marcos Blvd #275 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 302 San Marcos, CA 92078
1930 W San Marcos Blvd #279 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 303 San Marcos, CA 92078
1930 W San Marcos Blvd #280 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 304 San Marcos, CA 92078
1930 W San Marcos Blvd #281 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 305 San Marcos, CA 92078
1930 W San Marcos Blvd #285 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 306 San Marcos, CA 92078
1930 W San Marcos Blvd #287 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 307 San Marcos, CA 92078
1930 W San Marcos Blvd #289 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 308 San Marcos, CA 92078
1930 W San Marcos Blvd #291 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 309 San Marcos, CA 92078
1930 W San Marcos Blvd #293 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 31 San Marcos, CA 92078
1930 W San Marcos Blvd #295 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 310 San Marcos, CA 92078
1930 W San Marcos Blvd #298 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 311 San Marcos, CA 92078
1930 W San Marcos Blvd #299 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 312 San Marcos, CA 92078
1930 W San Marcos Blvd #3 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 314 San Marcos, CA 92078
1930 W San Marcos Blvd #301 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 315 San Marcos, CA 92078
1930 W San Marcos Blvd #302 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 316 San Marcos, CA 92078

600 NOTIFICATION LIST

1930 W San Marcos Blvd #303 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 317 San Marcos, CA 92078
1930 W San Marcos Blvd #305 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 318 San Marcos, CA 92078
1930 W San Marcos Blvd #307 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 32 San Marcos, CA 92078
1930 W San Marcos Blvd #308 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 320 San Marcos, CA 92078
1930 W San Marcos Blvd #313 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 322 San Marcos, CA 92078
1930 W San Marcos Blvd #314 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 323 San Marcos, CA 92078
1930 W San Marcos Blvd #316 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 324 San Marcos, CA 92078
1930 W San Marcos Blvd #317 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 325 San Marcos, CA 92078
1930 W San Marcos Blvd #319 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 326 San Marcos, CA 92078
1930 W San Marcos Blvd #325 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 327 San Marcos, CA 92078
1930 W San Marcos Blvd #329 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 328 San Marcos, CA 92078
1930 W San Marcos Blvd #331 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 329 San Marcos, CA 92078
1930 W San Marcos Blvd #332 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 33 San Marcos, CA 92078
1930 W San Marcos Blvd #333 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 330 San Marcos, CA 92078
1930 W San Marcos Blvd #334 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 331 San Marcos, CA 92078
1930 W San Marcos Blvd #335 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 332 San Marcos, CA 92078
1930 W San Marcos Blvd #340 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 333 San Marcos, CA 92078
1930 W San Marcos Blvd #341 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 334 San Marcos, CA 92078
1930 W San Marcos Blvd #344 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 335 San Marcos, CA 92078
1930 W San Marcos Blvd #348 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 336 San Marcos, CA 92078
1930 W San Marcos Blvd #35 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 337 San Marcos, CA 92078
1930 W San Marcos Blvd #351 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 338 San Marcos, CA 92078
1930 W San Marcos Blvd #352 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 339 San Marcos, CA 92078
1930 W San Marcos Blvd #358 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 34 San Marcos, CA 92078
1930 W San Marcos Blvd #359 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 340 San Marcos, CA 92078
1930 W San Marcos Blvd #36 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 341 San Marcos, CA 92078
1930 W San Marcos Blvd #361 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 342 San Marcos, CA 92078
1930 W San Marcos Blvd #363 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 343 San Marcos, CA 92078
1930 W San Marcos Blvd #365 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 344 San Marcos, CA 92078
1930 W San Marcos Blvd #366 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 345 San Marcos, CA 92078
1930 W San Marcos Blvd #368 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 347 San Marcos, CA 92078
1930 W San Marcos Blvd #369 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 348 San Marcos, CA 92078
1930 W San Marcos Blvd #370 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 349 San Marcos, CA 92078
1930 W San Marcos Blvd #373 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 35 San Marcos, CA 92078
1930 W San Marcos Blvd #376 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 350 San Marcos, CA 92078
1930 W San Marcos Blvd #379 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 351 San Marcos, CA 92078
1930 W San Marcos Blvd #380 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 352 San Marcos, CA 92078
1930 W San Marcos Blvd #382 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 353 San Marcos, CA 92078
1930 W San Marcos Blvd #383 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 354 San Marcos, CA 92078
1930 W San Marcos Blvd #384 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 355 San Marcos, CA 92078
1930 W San Marcos Blvd #386 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 356 San Marcos, CA 92078
1930 W San Marcos Blvd #387 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 357 San Marcos, CA 92078
1930 W San Marcos Blvd #39 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 358 San Marcos, CA 92078
1930 W San Marcos Blvd #392 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 359 San Marcos, CA 92078
1930 W San Marcos Blvd #394 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 36 San Marcos, CA 92078
1930 W San Marcos Blvd #396 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 360 San Marcos, CA 92078
1930 W San Marcos Blvd #397 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 361 San Marcos, CA 92078
1930 W San Marcos Blvd #398 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 362 San Marcos, CA 92078
1930 W San Marcos Blvd #399 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 363 San Marcos, CA 92078
1930 W San Marcos Blvd #399a San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 364 San Marcos, CA 92078
1930 W San Marcos Blvd #4 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 365 San Marcos, CA 92078
1930 W San Marcos Blvd #400 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 366 San Marcos, CA 92078
1930 W San Marcos Blvd #401 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 367 San Marcos, CA 92078

600 NOTIFICATION LIST

1930 W San Marcos Blvd #404 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 368 San Marcos, CA 92078
1930 W San Marcos Blvd #408 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 369 San Marcos, CA 92078
1930 W San Marcos Blvd #412 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 37 San Marcos, CA 92078
1930 W San Marcos Blvd #421 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 370 San Marcos, CA 92078
1930 W San Marcos Blvd #422 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 371 San Marcos, CA 92078
1930 W San Marcos Blvd #425 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 372 San Marcos, CA 92078
1930 W San Marcos Blvd #428 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 38 San Marcos, CA 92078
1930 W San Marcos Blvd #430 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 39 San Marcos, CA 92078
1930 W San Marcos Blvd #431 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 40 San Marcos, CA 92078
1930 W San Marcos Blvd #433 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 41 San Marcos, CA 92078
1930 W San Marcos Blvd #435 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 42 San Marcos, CA 92078
1930 W San Marcos Blvd #436 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 43 San Marcos, CA 92078
1930 W San Marcos Blvd #436a San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 44 San Marcos, CA 92078
1930 W San Marcos Blvd #438 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 45 San Marcos, CA 92078
1930 W San Marcos Blvd #439 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 46 San Marcos, CA 92078
1930 W San Marcos Blvd #440 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 47 San Marcos, CA 92078
1930 W San Marcos Blvd #442 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 49 San Marcos, CA 92078
1930 W San Marcos Blvd #443 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 51 San Marcos, CA 92078
1930 W San Marcos Blvd #445 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 53 San Marcos, CA 92078
1930 W San Marcos Blvd #446 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 54 San Marcos, CA 92078
1930 W San Marcos Blvd #449 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 55 San Marcos, CA 92078
1930 W San Marcos Blvd #45 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 56 San Marcos, CA 92078
1930 W San Marcos Blvd #450 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 57 San Marcos, CA 92078
1930 W San Marcos Blvd #451 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 58 San Marcos, CA 92078
1930 W San Marcos Blvd #452 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 59 San Marcos, CA 92078
1930 W San Marcos Blvd #456 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 60 San Marcos, CA 92078
1930 W San Marcos Blvd #457 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 61 San Marcos, CA 92078
1930 W San Marcos Blvd #458 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 62 San Marcos, CA 92078
1930 W San Marcos Blvd #47 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 63 San Marcos, CA 92078
1930 W San Marcos Blvd #48 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 64 San Marcos, CA 92078
1930 W San Marcos Blvd #53 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 65 San Marcos, CA 92078
1930 W San Marcos Blvd #54 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 66 San Marcos, CA 92078
1930 W San Marcos Blvd #58 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 67 San Marcos, CA 92078
1930 W San Marcos Blvd #60 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 69 San Marcos, CA 92078
1930 W San Marcos Blvd #62 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 71 San Marcos, CA 92078
1930 W San Marcos Blvd #64 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 72 San Marcos, CA 92078
1930 W San Marcos Blvd #66 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 75 San Marcos, CA 92078
1930 W San Marcos Blvd #67 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 76 San Marcos, CA 92078
1930 W San Marcos Blvd #68 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 77 San Marcos, CA 92078
1930 W San Marcos Blvd #7 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 78 San Marcos, CA 92078
1930 W San Marcos Blvd #73 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 80 San Marcos, CA 92078
1930 W San Marcos Blvd #76 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 81 San Marcos, CA 92078
1930 W San Marcos Blvd #77 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 82 San Marcos, CA 92078
1930 W San Marcos Blvd #88 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 83 San Marcos, CA 92078
1930 W San Marcos Blvd #9 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 84 San Marcos, CA 92078
1930 W San Marcos Blvd #90 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 85 San Marcos, CA 92078
1930 W San Marcos Blvd #93 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 87 San Marcos, CA 92078
1930 W San Marcos Blvd #96 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 88 San Marcos, CA 92078
1930 W San Marcos Blvd #97 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 89 San Marcos, CA 92078
1930 W San Marcos Blvd #98 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 91 San Marcos, CA 92078
1930 W San Marcos Blvd #99 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 92 San Marcos, CA 92078
1930 W San Marcos Blvd San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 93 San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 01 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 94 San Marcos, CA 92078

600 NOTIFICATION LIST

1930 W San Marcos Blvd, Ste. 02 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 96 San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 03 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 97 San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 04 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 98 San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 05 San Marcos, CA 92078	650 S Rancho Santa Fe Rd, Ste. 99 San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 06 San Marcos, CA 92078	6502 Peach Ave Van Nuys, CA 91406
1930 W San Marcos Blvd, Ste. 07 San Marcos, CA 92078	651 Liquid Amber Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 08 San Marcos, CA 92078	6524 Fremont Cir Huntington Beach, CA 92648
1930 W San Marcos Blvd, Ste. 09 San Marcos, CA 92078	654 Liquid Amber Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 10 San Marcos, CA 92078	655 Alpine Way Escondido, CA 92029
1930 W San Marcos Blvd, Ste. 100 San Marcos, CA 92078	655 Enterprise St Escondido, CA 92029
1930 W San Marcos Blvd, Ste. 101 San Marcos, CA 92078	655 Liquid Amber Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 102 San Marcos, CA 92078	655 Venture St Escondido, CA 92029
1930 W San Marcos Blvd, Ste. 103 San Marcos, CA 92078	657 Beverly Pl San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 104 San Marcos, CA 92078	658 Liquid Amber Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 105 San Marcos, CA 92078	659 Beverly Pl San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 106 San Marcos, CA 92078	659 Liquid Amber Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 107 San Marcos, CA 92078	660 Mcgavran Dr Vista, CA 92081
1930 W San Marcos Blvd, Ste. 108 San Marcos, CA 92078	660 Stoneybrae Pl Escondido, CA 92027
1930 W San Marcos Blvd, Ste. 109 San Marcos, CA 92078	661 Beverly Pl San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 11 San Marcos, CA 92078	662 Enterprise St Escondido, CA 92029
1930 W San Marcos Blvd, Ste. 110 San Marcos, CA 92078	662 Liquid Amber Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 111 San Marcos, CA 92078	663 Beverly Pl San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 112 San Marcos, CA 92078	663 Liquid Amber Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 113 San Marcos, CA 92078	665 Beverly Pl San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 114 San Marcos, CA 92078	667 Beverly Pl San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 115 San Marcos, CA 92078	667 Liquid Amber Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 116 San Marcos, CA 92078	668 Liquid Amber Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 117 San Marcos, CA 92078	669 Beverly Pl San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 118 San Marcos, CA 92078	671 Beverly Pl San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 119 San Marcos, CA 92078	671 Liquid Amber Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 12 San Marcos, CA 92078	671 Rancho Santa Fe Rd San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 120 San Marcos, CA 92078	672 Liquid Amber Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 121 San Marcos, CA 92078	673 Beverly Pl San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 122 San Marcos, CA 92078	6732 Camphor Pl Carlsbad, CA 92011
1930 W San Marcos Blvd, Ste. 123 San Marcos, CA 92078	6737 W Washington St #2300 Milwaukee, WI 53214
1930 W San Marcos Blvd, Ste. 124 San Marcos, CA 92078	675 Beverly Pl San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 125 San Marcos, CA 92078	675 Liquid Amber Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 126 San Marcos, CA 92078	675 Rancho Santa Fe Rd San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 127 San Marcos, CA 92078	676 Liquid Amber Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 128 San Marcos, CA 92078	677 Beverly Pl San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 129 San Marcos, CA 92078	677 S Rancho Santa Fe Rd San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 13 San Marcos, CA 92078	678 Enterprise St Escondido, CA 92029
1930 W San Marcos Blvd, Ste. 130 San Marcos, CA 92078	679 Beverly Pl San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 131 San Marcos, CA 92078	679 Enterprise St Escondido, CA 92029
1930 W San Marcos Blvd, Ste. 132 San Marcos, CA 92078	679 Liquid Amber Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 133 San Marcos, CA 92078	6806 33rd Ave Se Lacey Wa 98503
1930 W San Marcos Blvd, Ste. 134 San Marcos, CA 92078	681 Beverly Pl San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 135 San Marcos, CA 92078	681 Weatherstone Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 136 San Marcos, CA 92078	683 Beverly Pl San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 137 San Marcos, CA 92078	683 Liquid Amber Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 138 San Marcos, CA 92078	6845 Citrine Dr Carlsbad, CA 92009
1930 W San Marcos Blvd, Ste. 139 San Marcos, CA 92078	685 Beverly Pl San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 14 San Marcos, CA 92078	685 Liquid Amber Way San Marcos, CA 92078

600 NOTIFICATION LIST

1930 W San Marcos Blvd, Ste. 140 San Marcos, CA 92078	687 Beverly Pl San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 141 San Marcos, CA 92078	689 Beverly Pl San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 142 San Marcos, CA 92078	689 Liquid Amber Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 143 San Marcos, CA 92078	689 S Rancho Santa Fe Rd San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 144 San Marcos, CA 92078	691 Beverly Pl San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 145 San Marcos, CA 92078	691 Liquid Amber Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 146 San Marcos, CA 92078	693 N Cornejo School Rd Thousand Oaks, CA 91362
1930 W San Marcos Blvd, Ste. 147 San Marcos, CA 92078	694 Liquid Amber Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 148 San Marcos, CA 92078	6940 Via Mariposa Sur Bonsall, CA 92003
1930 W San Marcos Blvd, Ste. 149 San Marcos, CA 92078	695 Liquid Amber Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 15 San Marcos, CA 92078	695 S Rancho Santa Fe Rd San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 150 San Marcos, CA 92078	697 Liquid Amber Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 151 San Marcos, CA 92078	6970 Waters End Dr Carlsbad, CA 92011
1930 W San Marcos Blvd, Ste. 152 San Marcos, CA 92078	699 Liquid Amber Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 153 San Marcos, CA 92078	700 Front St #1904 San Diego, CA 92101
1930 W San Marcos Blvd, Ste. 154 San Marcos, CA 92078	700 Rancho Santa Fe Rd San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 155 San Marcos, CA 92078	702 Rancho Santa Fe Rd San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 156 San Marcos, CA 92078	7031 Partridge Pl Carlsbad, CA 92011
1930 W San Marcos Blvd, Ste. 157 San Marcos, CA 92078	7041 Almaden Ln Carlsbad, CA 92009
1930 W San Marcos Blvd, Ste. 158 San Marcos, CA 92078	7055 Via Candrejo Carlsbad, CA 92009
1930 W San Marcos Blvd, Ste. 159 San Marcos, CA 92078	7074 Via Blanca San Jose, CA 95139
1930 W San Marcos Blvd, Ste. 16 San Marcos, CA 92078	7085 Tatler Rd Carlsbad, CA 92011
1930 W San Marcos Blvd, Ste. 160 San Marcos, CA 92078	7111 Babilonia St Carlsbad, CA 92009
1930 W San Marcos Blvd, Ste. 161 San Marcos, CA 92078	7149 Obelisco Cir Carlsbad, CA 92009
1930 W San Marcos Blvd, Ste. 162 San Marcos, CA 92078	722 Enterprise St Escondido, CA 92029
1930 W San Marcos Blvd, Ste. 163 San Marcos, CA 92078	7249 Sitio Lima Carlsbad, CA 92009
1930 W San Marcos Blvd, Ste. 164 San Marcos, CA 92078	725 Alta Vista Dr Vista, CA 92084
1930 W San Marcos Blvd, Ste. 165 San Marcos, CA 92078	7304 E Visao Dr Scottsdale AZ 85266
1930 W San Marcos Blvd, Ste. 166 San Marcos, CA 92078	731 Enterprise St Escondido, CA 92029
1930 W San Marcos Blvd, Ste. 167 San Marcos, CA 92078	7313 Black Swan Pl Carlsbad, CA 92011
1930 W San Marcos Blvd, Ste. 168 San Marcos, CA 92078	7326 Calle Pera Carlsbad, CA 92009
1930 W San Marcos Blvd, Ste. 168a San Marcos, CA 92078	7333 Altiva Pl Carlsbad, CA 92009
1930 W San Marcos Blvd, Ste. 169 San Marcos, CA 92078	734 Rancho Santa Fe Rd San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 17 San Marcos, CA 92078	734 Rancho Snata Fe Rd San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 170 San Marcos, CA 92078	73-4350 Kio-Paa Pl Kailua Kona, HI 96740
1930 W San Marcos Blvd, Ste. 171 San Marcos, CA 92078	735 Firth Ave Long Beach, CA 90049
1930 W San Marcos Blvd, Ste. 172 San Marcos, CA 92078	7355 Circulo Rhonda Carlsbad, CA 92009
1930 W San Marcos Blvd, Ste. 173 San Marcos, CA 92078	736 Rancho Santa Fe Rd San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 174 San Marcos, CA 92078	740 Enterprise St Escondido, CA 92029
1930 W San Marcos Blvd, Ste. 175 San Marcos, CA 92078	740 Lomas Santa Fe Dr #204 Solana Beach, CA 92075
1930 W San Marcos Blvd, Ste. 176 San Marcos, CA 92078	740 Rancho Santa Fe Rd San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 177 San Marcos, CA 92078	7401 Avenida De Palais Carlsbad, CA 92009
1930 W San Marcos Blvd, Ste. 178 San Marcos, CA 92078	742 Cody Ln Escondido, CA 92025
1930 W San Marcos Blvd, Ste. 179 San Marcos, CA 92078	747 Enterprise St Escondido, CA 92029
1930 W San Marcos Blvd, Ste. 18 San Marcos, CA 92078	750 Crest Dr Encinitas, CA 92024
1930 W San Marcos Blvd, Ste. 180 San Marcos, CA 92078	757 Twin Oaks Valley Rd #1 San Marcos, CA 92069
1930 W San Marcos Blvd, Ste. 180a San Marcos, CA 92078	762 S Rancho Santa Fe Rd San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 181 San Marcos, CA 92078	7627 Little Creek Rd Escondido, CA 92078
1930 W San Marcos Blvd, Ste. 182 San Marcos, CA 92078	7635 Little Creek Rd Escondido, CA 92078
1930 W San Marcos Blvd, Ste. 183 San Marcos, CA 92078	7668 El Camino Real #104-449 Carlsbad, CA 92009
1930 W San Marcos Blvd, Ste. 184 San Marcos, CA 92078	7688 Little Creek Rd Escondido, CA 92078
1930 W San Marcos Blvd, Ste. 185 San Marcos, CA 92078	7781 Quitasol St Carlsbad, CA 92009
1930 W San Marcos Blvd, Ste. 186 San Marcos, CA 92078	790 Poppy Rd San Marcos, CA 92078

600 NOTIFICATION LIST

1930 W San Marcos Blvd, Ste. 187 San Marcos, CA 92078	7954 Calle Madrid Carlsbad, CA 92009
1930 W San Marcos Blvd, Ste. 188 San Marcos, CA 92078	7968 Grado El Tupelo Carlsbad, CA 92009
1930 W San Marcos Blvd, Ste. 189 San Marcos, CA 92078	798 Marcos Vista Ln San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 19 San Marcos, CA 92078	8 Bretton Rdg Bedford Corners, NY 10549
1930 W San Marcos Blvd, Ste. 190 San Marcos, CA 92078	800 Rancho Santa Fe Rd San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 191 San Marcos, CA 92078	802 La Tierra Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 192 San Marcos, CA 92078	804 La Bonita Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 193 San Marcos, CA 92078	807 E Mission Rd San Marcos, CA 92069
1930 W San Marcos Blvd, Ste. 194 San Marcos, CA 92078	808 La Tierra Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 195 San Marcos, CA 92078	80892 Rockberry Ct Indio, CA 92201
1930 W San Marcos Blvd, Ste. 196 San Marcos, CA 92078	810 La Bonita Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 197 San Marcos, CA 92078	815 Luminara Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 198 San Marcos, CA 92078	816 La Bonita Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 199 San Marcos, CA 92078	816 La Tierra Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 20 San Marcos, CA 92078	818 Summerhill Ct Encinitas, CA 92024
1930 W San Marcos Blvd, Ste. 200 San Marcos, CA 92078	821 Armada Ter San Diego, CA 92106
1930 W San Marcos Blvd, Ste. 201 San Marcos, CA 92078	821 La Tierra Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 202 San Marcos, CA 92078	821 Rancho Santa Fe Rd San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 203 San Marcos, CA 92078	822 La Bonita Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 204 San Marcos, CA 92078	824 Bel Esprit Cir San Marcos, CA 92069
1930 W San Marcos Blvd, Ste. 205 San Marcos, CA 92078	824 La Tierra Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 206 San Marcos, CA 92078	825 Via La Venta San Marcos, CA 92069
1930 W San Marcos Blvd, Ste. 207 San Marcos, CA 92078	828 La Bonita Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 208 San Marcos, CA 92078	830 S Rancho Santa Fe Rd San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 209 San Marcos, CA 92078	831 La Tierra Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 21 San Marcos, CA 92078	832 La Tierra Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 210 San Marcos, CA 92078	833 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 211 San Marcos, CA 92078	834 La Bonita Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 212 San Marcos, CA 92078	834 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 212a San Marcos, CA 92078	8354 S River Terrace Dr Franklin, WI 53132
1930 W San Marcos Blvd, Ste. 213 San Marcos, CA 92078	838 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 214 San Marcos, CA 92078	839 La Tierra Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 215 San Marcos, CA 92078	840 La Tierra Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 216 San Marcos, CA 92078	8409 Dinsdale St Downey, CA 90240
1930 W San Marcos Blvd, Ste. 217 San Marcos, CA 92078	841 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 218 San Marcos, CA 92078	842 St Sava Pl San Marcos, CA 92069
1930 W San Marcos Blvd, Ste. 219 San Marcos, CA 92078	844 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 22 San Marcos, CA 92078	846 Cannondale Ct San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 220 San Marcos, CA 92078	847 La Tierra Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 221 San Marcos, CA 92078	848 La Tierra Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 222 San Marcos, CA 92078	849 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 223 San Marcos, CA 92078	85091 Christian Way #317 Yulee, Fl 32097
1930 W San Marcos Blvd, Ste. 224 San Marcos, CA 92078	852 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 225 San Marcos, CA 92078	854 Rancho Santa Fe Rd #F San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 226 San Marcos, CA 92078	854 S Rancho Santa Fe Rd #C San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 227 San Marcos, CA 92078	854 S Rancho Santa Fe Rd #D San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 228 San Marcos, CA 92078	854 S Rancho Santa Fe Rd #E San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 229 San Marcos, CA 92078	854 S Rancho Santa Fe Rd #H San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 23 San Marcos, CA 92078	854 S Rancho Santa Fe Rd, Ste. A San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 230 San Marcos, CA 92078	854 S Rancho Santa Fe Rd, Ste. B San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 230a San Marcos, CA 92078	854 S Rancho Santa Fe Rd, Ste. C San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 230b San Marcos, CA 92078	854 S Rancho Santa Fe Rd, Ste. D San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 231 San Marcos, CA 92078	854 S Rancho Santa Fe Rd, Ste. E San Marcos, CA 92078

600 NOTIFICATION LIST

1930 W San Marcos Blvd, Ste. 232 San Marcos, CA 92078	854 S Rancho Santa Fe Rd, Ste. F San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 233 San Marcos, CA 92078	854 S Rancho Santa Fe Rd, Ste. G San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 233a San Marcos, CA 92078	854 S Rancho Santa Fe Rd, Ste. H San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 233b San Marcos, CA 92078	856 La Tierra Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 233c San Marcos, CA 92078	857 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 234 San Marcos, CA 92078	858 Rancho Santa Fe Rd, Ste. D San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 235 San Marcos, CA 92078	858 S Rancho Santa Fe Rd #B San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 236 San Marcos, CA 92078	858 S Rancho Santa Fe Rd #F San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 237 San Marcos, CA 92078	858 S Rancho Santa Fe Rd, Ste. A San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 238 San Marcos, CA 92078	858 S Rancho Santa Fe Rd, Ste. B San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 238a San Marcos, CA 92078	858 S Rancho Santa Fe Rd, Ste. C San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 239 San Marcos, CA 92078	858 S Rancho Santa Fe Rd, Ste. E San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 24 San Marcos, CA 92078	858 S Rancho Santa Fe Rd, Ste. F San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 240 San Marcos, CA 92078	858 S Rancho Santa Fe Rd, Ste. G San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 241 San Marcos, CA 92078	858 S Rancho Santa Fe Rd, Ste. H San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 242 San Marcos, CA 92078	858 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 243 San Marcos, CA 92078	864 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 244 San Marcos, CA 92078	865 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 245 San Marcos, CA 92078	866 Rancho Santa Fe Rd #E San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 246 San Marcos, CA 92078	866 S Rancho Santa Fe Rd #A San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 247 San Marcos, CA 92078	866 S Rancho Santa Fe Rd #C San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 248 San Marcos, CA 92078	866 S Rancho Santa Fe Rd #F San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 249 San Marcos, CA 92078	866 S Rancho Santa Fe Rd #G San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 25 San Marcos, CA 92078	866 S Rancho Santa Fe Rd #H San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 250 San Marcos, CA 92078	866 S Rancho Santa Fe Rd, Ste. A San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 251 San Marcos, CA 92078	866 S Rancho Santa Fe Rd, Ste. B San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 252 San Marcos, CA 92078	866 S Rancho Santa Fe Rd, Ste. C San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 253 San Marcos, CA 92078	866 S Rancho Santa Fe Rd, Ste. D San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 254 San Marcos, CA 92078	866 S Rancho Santa Fe Rd, Ste. E San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 255 San Marcos, CA 92078	866 S Rancho Santa Fe Rd, Ste. F San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 256 San Marcos, CA 92078	866 S Rancho Santa Fe Rd, Ste. G San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 257 San Marcos, CA 92078	866 S Rancho Santa Fe Rd, Ste. H San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 258 San Marcos, CA 92078	868 S Rancho Santa Fe Rd #A San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 259 San Marcos, CA 92078	868 S Rancho Santa Fe Rd #D San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 259a San Marcos, CA 92078	868 S Rancho Santa Fe Rd #F San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 259b San Marcos, CA 92078	868 S Rancho Santa Fe Rd #G San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 26 San Marcos, CA 92078	868 S Rancho Santa Fe Rd, Ste. A San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 260 San Marcos, CA 92078	868 S Rancho Santa Fe Rd, Ste. B San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 261 San Marcos, CA 92078	868 S Rancho Santa Fe Rd, Ste. C San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 262 San Marcos, CA 92078	868 S Rancho Santa Fe Rd, Ste. D San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 263 San Marcos, CA 92078	868 S Rancho Santa Fe Rd, Ste. E San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 264 San Marcos, CA 92078	868 S Rancho Santa Fe Rd, Ste. F San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 265 San Marcos, CA 92078	868 S Rancho Santa Fe Rd, Ste. G San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 266 San Marcos, CA 92078	868 S Rancho Santa Fe Rd, Ste. H San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 267 San Marcos, CA 92078	870 S Rancho Santa Fe Rd #A San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 268 San Marcos, CA 92078	870 S Rancho Santa Fe Rd #B San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 269 San Marcos, CA 92078	870 S Rancho Santa Fe Rd #C San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 27 San Marcos, CA 92078	870 S Rancho Santa Fe Rd #D San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 270 San Marcos, CA 92078	870 S Rancho Santa Fe Rd #E San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 271 San Marcos, CA 92078	870 S Rancho Santa Fe Rd #G San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 272 San Marcos, CA 92078	870 S Rancho Santa Fe Rd #H San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 273 San Marcos, CA 92078	870 S Rancho Santa Fe Rd, Ste. A San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 274 San Marcos, CA 92078	870 S Rancho Santa Fe Rd, Ste. B San Marcos, CA 92078

600 NOTIFICATION LIST

1930 W San Marcos Blvd, Ste. 275 San Marcos, CA 92078	870 S Rancho Santa Fe Rd, Ste. C San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 276 San Marcos, CA 92078	870 S Rancho Santa Fe Rd, Ste. D San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 277 San Marcos, CA 92078	870 S Rancho Santa Fe Rd, Ste. E San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 279 San Marcos, CA 92078	870 S Rancho Santa Fe Rd, Ste. F San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 28 San Marcos, CA 92078	870 S Rancho Santa Fe Rd, Ste. G San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 280 San Marcos, CA 92078	870 S Rancho Santa Fe Rd, Ste. H San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 281 San Marcos, CA 92078	871 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 282 San Marcos, CA 92078	872 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 283 San Marcos, CA 92078	874 Rancho Santa Fe Rd #C San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 284 San Marcos, CA 92078	874 S Rancho Santa Fe Rd #F San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 285 San Marcos, CA 92078	874 S Rancho Santa Fe Rd, Ste. A San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 286 San Marcos, CA 92078	874 S Rancho Santa Fe Rd, Ste. B San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 287 San Marcos, CA 92078	874 S Rancho Santa Fe Rd, Ste. C San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 288 San Marcos, CA 92078	874 S Rancho Santa Fe Rd, Ste. D San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 289 San Marcos, CA 92078	874 S Rancho Santa Fe Rd, Ste. E San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 29 San Marcos, CA 92078	874 S Rancho Santa Fe Rd, Ste. F San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 290 San Marcos, CA 92078	874 S Rancho Santa Fe Rd, Ste. G San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 291 San Marcos, CA 92078	874 S Rancho Santa Fe Rd, Ste. H San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 292 San Marcos, CA 92078	875 Viewpoint Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 293 San Marcos, CA 92078	877 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 294 San Marcos, CA 92078	880 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 295 San Marcos, CA 92078	885 Summer Moon Rd San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 296 San Marcos, CA 92078	886 Genoa Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 297 San Marcos, CA 92078	886 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 298 San Marcos, CA 92078	887 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 299 San Marcos, CA 92078	888 Genoa Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 30 San Marcos, CA 92078	888 San Clemente Dr #100 Newport Beach, CA 92660
1930 W San Marcos Blvd, Ste. 300 San Marcos, CA 92078	890 Genoa Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 301 San Marcos, CA 92078	891 Genoa Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 302 San Marcos, CA 92078	891 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 303 San Marcos, CA 92078	891 Summer Moon Rd San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 304 San Marcos, CA 92078	892 Genoa Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 305 San Marcos, CA 92078	893 Genoa Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 306 San Marcos, CA 92078	894 Genoa Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 307 San Marcos, CA 92078	894 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 308 San Marcos, CA 92078	8947 La Camesa St San Diego, CA 92129
1930 W San Marcos Blvd, Ste. 309 San Marcos, CA 92078	895 Viewpoint Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 31 San Marcos, CA 92078	8950 Mt Israel Rd Escondido, CA 92029
1930 W San Marcos Blvd, Ste. 310 San Marcos, CA 92078	896 Genoa Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 311 San Marcos, CA 92078	896 Summer Moon Rd San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 312 San Marcos, CA 92078	897 Genoa Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 313 San Marcos, CA 92078	897 Summer Moon Rd San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 314 San Marcos, CA 92078	898 Genoa Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 315 San Marcos, CA 92078	899 Genoa Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 316 San Marcos, CA 92078	9 Corte Azul Moraga, CA 94556
1930 W San Marcos Blvd, Ste. 317 San Marcos, CA 92078	901 Lake Ridge Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 319 San Marcos, CA 92078	901 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 32 San Marcos, CA 92078	902 La Sombra Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 320 San Marcos, CA 92078	902 S Rancho Santa Fe Rd #B San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 321 San Marcos, CA 92078	902 S Rancho Santa Fe Rd #C San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 322 San Marcos, CA 92078	902 S Rancho Santa Fe Rd #E San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 323 San Marcos, CA 92078	902 S Rancho Santa Fe Rd #F San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 324 San Marcos, CA 92078	902 S Rancho Santa Fe Rd #G San Marcos, CA 92078

600 NOTIFICATION LIST

1930 W San Marcos Blvd, Ste. 325 San Marcos, CA 92078	902 S Rancho Santa Fe Rd, Ste. A San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 326 San Marcos, CA 92078	902 S Rancho Santa Fe Rd, Ste. B San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 327 San Marcos, CA 92078	902 S Rancho Santa Fe Rd, Ste. C San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 328 San Marcos, CA 92078	902 S Rancho Santa Fe Rd, Ste. D San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 329 San Marcos, CA 92078	902 S Rancho Santa Fe Rd, Ste. E San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 33 San Marcos, CA 92078	902 S Rancho Santa Fe Rd, Ste. F San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 330 San Marcos, CA 92078	902 S Rancho Santa Fe Rd, Ste. G San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 331 San Marcos, CA 92078	902 S Rancho Santa Fe Rd, Ste. H San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 332 San Marcos, CA 92078	903 Lake Ridge Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 333 San Marcos, CA 92078	904 Camino Del Arroyo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 334 San Marcos, CA 92078	905 Camino Del Arroyo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 335 San Marcos, CA 92078	905 Lake Ridge Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 336 San Marcos, CA 92078	905 Viewpoint Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 337 San Marcos, CA 92078	906 S Rancho Santa Fe Rd #B San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 338 San Marcos, CA 92078	906 S Rancho Santa Fe Rd #E San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 339 San Marcos, CA 92078	906 S Rancho Santa Fe Rd #G San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 34 San Marcos, CA 92078	906 S Rancho Santa Fe Rd, Ste. A San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 340 San Marcos, CA 92078	906 S Rancho Santa Fe Rd, Ste. B San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 341 San Marcos, CA 92078	906 S Rancho Santa Fe Rd, Ste. C San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 342 San Marcos, CA 92078	906 S Rancho Santa Fe Rd, Ste. D San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 343 San Marcos, CA 92078	906 S Rancho Santa Fe Rd, Ste. E San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 344 San Marcos, CA 92078	906 S Rancho Santa Fe Rd, Ste. F San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 345 San Marcos, CA 92078	906 S Rancho Santa Fe Rd, Ste. G San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 346 San Marcos, CA 92078	906 S Rancho Santa Fe Rd, Ste. H San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 347 San Marcos, CA 92078	906 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 348 San Marcos, CA 92078	907 Lake Ridge Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 349 San Marcos, CA 92078	908 La Sombra Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 35 San Marcos, CA 92078	909 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 350 San Marcos, CA 92078	910 Camino Del Arroyo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 351 San Marcos, CA 92078	910 Candlelite Dr San Marcos, CA 92069
1930 W San Marcos Blvd, Ste. 352 San Marcos, CA 92078	910 Lake Ridge Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 353 San Marcos, CA 92078	910 S Rancho Santa Fe Rd #A San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 354 San Marcos, CA 92078	910 S Rancho Santa Fe Rd #C San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 355 San Marcos, CA 92078	910 S Rancho Santa Fe Rd #F San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 356 San Marcos, CA 92078	910 S Rancho Santa Fe Rd #G San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 357 San Marcos, CA 92078	910 S Rancho Santa Fe Rd #H San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 358 San Marcos, CA 92078	910 S Rancho Santa Fe Rd, Ste. A San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 359 San Marcos, CA 92078	910 S Rancho Santa Fe Rd, Ste. B San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 36 San Marcos, CA 92078	910 S Rancho Santa Fe Rd, Ste. C San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 360 San Marcos, CA 92078	910 S Rancho Santa Fe Rd, Ste. D San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 361 San Marcos, CA 92078	910 S Rancho Santa Fe Rd, Ste. E San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 362 San Marcos, CA 92078	910 S Rancho Santa Fe Rd, Ste. F San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 363 San Marcos, CA 92078	910 S Rancho Santa Fe Rd, Ste. G San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 364 San Marcos, CA 92078	910 S Rancho Santa Fe Rd, Ste. H San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 365 San Marcos, CA 92078	911 Camino Del Arroyo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 366 San Marcos, CA 92078	9115 Mt Israel Rd Escondido, CA 92029
1930 W San Marcos Blvd, Ste. 367 San Marcos, CA 92078	912 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 368 San Marcos, CA 92078	9130 S Dadeland Blvd #1528 Miami, FL 33156
1930 W San Marcos Blvd, Ste. 369 San Marcos, CA 92078	914 La Sombra Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 37 San Marcos, CA 92078	915 Lake Ridge Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 370 San Marcos, CA 92078	915 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 371 San Marcos, CA 92078	915 Viewpoint Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 372 San Marcos, CA 92078	915 W Imperial Hwy #165 Brea, CA 92821

600 NOTIFICATION LIST

1930 W San Marcos Blvd, Ste. 373 San Marcos, CA 92078	916 Camino Del Arroyo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 374 San Marcos, CA 92078	917 Camino Del Arroyo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 375 San Marcos, CA 92078	918 S Rancho Santa Fe Rd #A San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 376 San Marcos, CA 92078	918 S Rancho Santa Fe Rd #B San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 377 San Marcos, CA 92078	918 S Rancho Santa Fe Rd #C San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 378 San Marcos, CA 92078	918 S Rancho Santa Fe Rd #E San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 379 San Marcos, CA 92078	918 S Rancho Santa Fe Rd, Ste. A San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 38 San Marcos, CA 92078	918 S Rancho Santa Fe Rd, Ste. B San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 380 San Marcos, CA 92078	918 S Rancho Santa Fe Rd, Ste. C San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 381 San Marcos, CA 92078	918 S Rancho Santa Fe Rd, Ste. D San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 382 San Marcos, CA 92078	918 S Rancho Santa Fe Rd, Ste. E San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 383 San Marcos, CA 92078	918 S Rancho Santa Fe Rd, Ste. F San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 384 San Marcos, CA 92078	918 S Rancho Santa Fe Rd, Ste. G San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 385 San Marcos, CA 92078	918 S Rancho Santa Fe Rd, Ste. H San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 386 San Marcos, CA 92078	918 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 387 San Marcos, CA 92078	9191 Towne Centre Dr #L101 San Diego, CA 92122
1930 W San Marcos Blvd, Ste. 388 San Marcos, CA 92078	920 La Sombra Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 389 San Marcos, CA 92078	920 Lake Ridge Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 39 San Marcos, CA 92078	921 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 390 San Marcos, CA 92078	922 Camino Del Arroyo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 391 San Marcos, CA 92078	922 Dunleer Dr Allen, TX 75013
1930 W San Marcos Blvd, Ste. 392 San Marcos, CA 92078	923 Camino Del Arroyo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 393 San Marcos, CA 92078	924 S Rancho Santa Fe Rd #B San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 394 San Marcos, CA 92078	924 S Rancho Santa Fe Rd #E San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 395 San Marcos, CA 92078	924 S Rancho Santa Fe Rd, Ste. A San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 396 San Marcos, CA 92078	924 S Rancho Santa Fe Rd, Ste. B San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 397 San Marcos, CA 92078	924 S Rancho Santa Fe Rd, Ste. C San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 398 San Marcos, CA 92078	924 S Rancho Santa Fe Rd, Ste. D San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 399 San Marcos, CA 92078	924 S Rancho Santa Fe Rd, Ste. E San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 399a San Marcos, CA 92078	924 S Rancho Santa Fe Rd, Ste. F San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 40 San Marcos, CA 92078	924 S Rancho Santa Fe Rd, Ste. G San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 400 San Marcos, CA 92078	924 S Rancho Santa Fe Rd, Ste. H San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 401 San Marcos, CA 92078	925 Lake Ridge Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 402 San Marcos, CA 92078	925 Viewpoint Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 403 San Marcos, CA 92078	926 La Sombra Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 404 San Marcos, CA 92078	926 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 405 San Marcos, CA 92078	927 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 405a San Marcos, CA 92078	927 Tularosa Ln San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 406 San Marcos, CA 92078	928 Camino Del Arroyo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 407 San Marcos, CA 92078	928 Richard Rd San Marcos, CA 92069
1930 W San Marcos Blvd, Ste. 408 San Marcos, CA 92078	928 Tularosa Ln San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 409 San Marcos, CA 92078	929 Camino Del Arroyo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 41 San Marcos, CA 92078	929 Tularosa Ln San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 410 San Marcos, CA 92078	930 Lake Ridge Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 411 San Marcos, CA 92078	930 Tularosa Ln San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 412 San Marcos, CA 92078	931 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 413 San Marcos, CA 92078	931 Tularosa Ln San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 414 San Marcos, CA 92078	932 La Sombra Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 415 San Marcos, CA 92078	932 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 416 San Marcos, CA 92078	932 Tucana Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 417 San Marcos, CA 92078	932 West Ranch Rd San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 418 San Marcos, CA 92078	9324 Shadow Pinar Ct Orlando, FL 32825
1930 W San Marcos Blvd, Ste. 419 San Marcos, CA 92078	933 Tularosa Ln San Marcos, CA 92078

600 NOTIFICATION LIST

1930 W San Marcos Blvd, Ste. 42 San Marcos, CA 92078	933 W Ranch Rd San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 420 San Marcos, CA 92078	933 West Ranch Rd San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 421 San Marcos, CA 92078	934 Camino Del Arroyo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 422 San Marcos, CA 92078	935 Camino Del Arroyo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 423 San Marcos, CA 92078	935 Lake Ridge Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 424 San Marcos, CA 92078	935 Tularosa Ln San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 425 San Marcos, CA 92078	935 Viewpoint Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 426 San Marcos, CA 92078	937 San Pablo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 427 San Marcos, CA 92078	937 Tularosa Ln San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 428 San Marcos, CA 92078	938 La Sombra Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 429 San Marcos, CA 92078	938 West Ranch Rd San Diego, CA 92078
1930 W San Marcos Blvd, Ste. 43 San Marcos, CA 92078	938 West Ranch Rd San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 430 San Marcos, CA 92078	939 Avalon Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 431 San Marcos, CA 92078	939 W Ranch Rd San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 432 San Marcos, CA 92078	940 Avalon Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 433 San Marcos, CA 92078	940 Camino Del Arroyo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 434 San Marcos, CA 92078	9405 Arrowpoint Blvd Charlotte NC 28273
1930 W San Marcos Blvd, Ste. 435 San Marcos, CA 92078	941 Avalon Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 436 San Marcos, CA 92078	941 Camino Del Arroyo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 436a San Marcos, CA 92078	9421 Haven Ave Rancho Cucamonga, CA 91730
1930 W San Marcos Blvd, Ste. 437 San Marcos, CA 92078	9423 Reseda Blvd #545 Northridge, CA 91324
1930 W San Marcos Blvd, Ste. 438 San Marcos, CA 92078	943 Andreasen Dr Escondido, CA 92029
1930 W San Marcos Blvd, Ste. 439 San Marcos, CA 92078	943 Avalon Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 44 San Marcos, CA 92078	943 S Andreasen Dr Escondido, CA 92029
1930 W San Marcos Blvd, Ste. 440 San Marcos, CA 92078	943 San Pablo Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 441 San Marcos, CA 92078	944 Avalon Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 442 San Marcos, CA 92078	944 La Sombra Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 443 San Marcos, CA 92078	944 West Ranch Rd San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 444 San Marcos, CA 92078	945 Avalon Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 445 San Marcos, CA 92078	945 Lake Ridge Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 446 San Marcos, CA 92078	945 Viewpoint Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 446a San Marcos, CA 92078	946 Avalon Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 447 San Marcos, CA 92078	946 Camino Del Arroyo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 448 San Marcos, CA 92078	947 Avalon Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 449 San Marcos, CA 92078	947 San Pablo Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 45 San Marcos, CA 92078	948 Avalon Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 450 San Marcos, CA 92078	949 Avalon Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 451 San Marcos, CA 92078	950 Avalon Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 452 San Marcos, CA 92078	951 San Pablo Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 453 San Marcos, CA 92078	952 Camino Del Arroyo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 454 San Marcos, CA 92078	954 Avalon Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 455 San Marcos, CA 92078	954 Hawthorne Ct San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 457 San Marcos, CA 92078	9541 Vervain St San Diego, CA 92129
1930 W San Marcos Blvd, Ste. 458 San Marcos, CA 92078	955 Avalon Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 459 San Marcos, CA 92078	955 Viewpoint Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 46 San Marcos, CA 92078	956 Avalon Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 460 San Marcos, CA 92078	957 Avalon Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 47 San Marcos, CA 92078	958 Avalon Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 48 San Marcos, CA 92078	958 Camino Del Arroyo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 49 San Marcos, CA 92078	960 Avalon Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 50 San Marcos, CA 92078	960 Lake Ridge Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 51 San Marcos, CA 92078	961 S Santa Fe Ave Vista, CA 92083
1930 W San Marcos Blvd, Ste. 52 San Marcos, CA 92078	962 Avalon Way San Marcos, CA 92078

600 NOTIFICATION LIST

1930 W San Marcos Blvd, Ste. 53 San Marcos, CA 92078	963 Avalon Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 54 San Marcos, CA 92078	963 Honeysuckle Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 55 San Marcos, CA 92078	964 Avalon Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 56 San Marcos, CA 92078	964 Camino Del Arroyo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 57 San Marcos, CA 92078	965 Viewpoint Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 58 San Marcos, CA 92078	966 Hawthorne Ct San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 59 San Marcos, CA 92078	9665 Chesapeake Dr #300 San Diego, CA 92123
1930 W San Marcos Blvd, Ste. 60 San Marcos, CA 92078	967 Avalon Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 61 San Marcos, CA 92078	968 Avalon Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 62 San Marcos, CA 92078	970 Avalon Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 63 San Marcos, CA 92078	970 Camino Del Arroyo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 64 San Marcos, CA 92078	970 Viewpoint Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 65 San Marcos, CA 92078	971 Avalon Way San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 66 San Marcos, CA 92078	971 Baylor Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 67 San Marcos, CA 92078	975 Baylor Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 68 San Marcos, CA 92078	975 S Andreasen Dr Escondido, CA 92029
1930 W San Marcos Blvd, Ste. 69 San Marcos, CA 92078	975 Viewpoint Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 70 San Marcos, CA 92078	976 Camino Del Arroyo Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 71 San Marcos, CA 92078	979 Baylor Dr San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 72 San Marcos, CA 92078	982 Camino Del Arroyo Dr, Ste. 49 San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 73 San Marcos, CA 92078	9853 Derby Way Parker Co 80134
1930 W San Marcos Blvd, Ste. 74 San Marcos, CA 92078	988 Andreasen Dr Escondido, CA 92029
1930 W San Marcos Blvd, Ste. 75 San Marcos, CA 92078	991 Wild Iris Ct San Marcos, CA 92078
1930 W San Marcos Blvd, Ste. 76 San Marcos, CA 92078	9965 Swath Ct San Diego, CA 92129
1930 W San Marcos Blvd, Ste. 77 San Marcos, CA 92078	P O Box 1085 Cardiff, CA 92007
1930 W San Marcos Blvd, Ste. 78 San Marcos, CA 92078	P O Box 1089 St Joseph Mo 64502
1930 W San Marcos Blvd, Ste. 79 San Marcos, CA 92078	P O Box 111 Escondido, CA 92033
1930 W San Marcos Blvd, Ste. 80 San Marcos, CA 92078	P O Box 1166 Kailua Kona, HI 96745
1930 W San Marcos Blvd, Ste. 81 San Marcos, CA 92078	P O Box 1194 San Marcos, CA 92079
1930 W San Marcos Blvd, Ste. 82 San Marcos, CA 92078	P O Box 12152 La Jolla, CA 92039
1930 W San Marcos Blvd, Ste. 83 San Marcos, CA 92078	P O Box 130067 Carlsbad, CA 92013
1930 W San Marcos Blvd, Ste. 84 San Marcos, CA 92078	P O Box 130668 Carlsbad, CA 92013
1930 W San Marcos Blvd, Ste. 85 San Marcos, CA 92078	P O Box 131082 Carlsbad, CA 92013
1930 W San Marcos Blvd, Ste. 86 San Marcos, CA 92078	P O Box 131446 Carlsbad, CA 92013
1930 W San Marcos Blvd, Ste. 87 San Marcos, CA 92078	P O Box 1442 Rancho Santa Fe, CA 92067
1930 W San Marcos Blvd, Ste. 88 San Marcos, CA 92078	P O Box 1474 Julian, CA 92036
1930 W San Marcos Blvd, Ste. 89 San Marcos, CA 92078	P O Box 150 Cardiff, CA 92007
1930 W San Marcos Blvd, Ste. 90 San Marcos, CA 92078	P O Box 1748 San Marcos, CA 92079
1930 W San Marcos Blvd, Ste. 92 San Marcos, CA 92078	P O Box 1872 Rancho Santa Fe, CA 92067
1930 W San Marcos Blvd, Ste. 93 San Marcos, CA 92078	P O Box 1971 Vista, CA 92085
1930 W San Marcos Blvd, Ste. 94 San Marcos, CA 92078	P O Box 2225 Valley Center, CA 92082
1930 W San Marcos Blvd, Ste. 95 San Marcos, CA 92078	P O Box 2228 La Jolla, CA 92038
1930 W San Marcos Blvd, Ste. 96 San Marcos, CA 92078	P O Box 231656 Encinitas, CA 92023
1930 W San Marcos Blvd, Ste. 97 San Marcos, CA 92078	P O Box 2321 La Mesa, CA 91943
1930 W San Marcos Blvd, Ste. 98 San Marcos, CA 92078	P O Box 234057 Encinitas, CA 92023
1930 W San Marcos Blvd, Ste. 99 San Marcos, CA 92078	P O Box 235588 Encinitas, CA 92023
1931 Commercial St Escondido, CA 92029	P O Box 2386 Carlsbad, CA 92018
1931 Don Lee Pl Escondido, CA 92029	P O Box 2495 San Marcos, CA 92079
1936 Commercial St Escondido, CA 92029	P O Box 2513 Del Mar, CA 92014
1940 Diamond St San Marcos, CA 92078	P O Box 2611 San Marcos, CA 92079
1941 Commercial St Escondido, CA 92029	P O Box 2729 Rancho Santa Fe, CA 92067
1943 Citracado Pkwy Escondido, CA 92029	P O Box 274 Valley Center, CA 92082
1944 Commercial St Escondido, CA 92029	P O Box 27599 San Diego, CA 92198

600 NOTIFICATION LIST

1948 Citracado Pkwy Escondido, CA 92029	P O Box 300867 Escondido, CA 92030
1951 Citracado Pkwy Escondido, CA 92029	P O Box 3385 Yountville, CA 94599
1954 Citracado Pkwy Escondido, CA 92029	P O Box 3429 Rancho Santa Fe, CA 92067
1955 Citracado Pkwy Escondido, CA 92029	P O Box 388 Penn Valley, CA 95946
1959 Palomar Oaks Way #320 Carlsbad, CA 92011	P O Box 4 San Marcos, CA 92079
1960 Citracado Pkwy Escondido, CA 92029	P O Box 4050 Newport Beach, CA 92661
19605 Elfin Gln Escondido, CA 92029	P O Box 4067 Carlsbad, CA 92018
1970 Citracado Pkwy Escondido, CA 92029	P O Box 441 Solana Beach, CA 92075
1971 Falling Leaf Ct San Marcos, CA 92078	P O Box 460250 Escondido, CA 92046
1973 Falling Leaf Ct San Marcos, CA 92078	P O Box 460791 Escondido, CA 92046
1974 Acorn Rd San Marcos, CA 92078	P O Box 460877 Escondido, CA 92046
1975 Acorn Rd San Marcos, CA 92078	P O Box 461025 Escondido, CA 92046
1975 Citracado Pkwy Escondido, CA 92029	P O Box 462708 Escondido, CA 92046
1975 Falling Leaf Ct San Marcos, CA 92078	P O Box 462810 Escondido, CA 92046
1976 Acorn Rd San Marcos, CA 92078	P O Box 463051 Escondido, CA 92046
1977 Citracado Pkwy Escondido, CA 92029	P O Box 501975 San Diego, CA 92150
1977 Falling Leaf Ct San Marcos, CA 92078	P O Box 518 San Marcos, CA 92079
1978 Falling Leaf Ct San Marcos, CA 92078	P O Box 541 Solana Beach, CA 92075
1979 Acorn Rd San Marcos, CA 92078	P O Box 5762 El Monte, CA 91734
1980 Acorn Rd San Marcos, CA 92078	P O Box 658 Oceanside, CA 92049
1980 Falling Leaf Ct San Marcos, CA 92078	P O Box 711 Dallas, TX 75221
19800 Macarthur Blvd #700 Irvine, CA 92612	P O Box 717 Santa Ynez, CA 93460
1981 Acorn Rd San Marcos, CA 92078	P O Box 9 San Marcos, CA 92079
1982 Acorn Rd San Marcos, CA 92078	P O Box 910828 San Diego, CA 92191
1982 Falling Leaf Ct San Marcos, CA 92078	P O Box 921 San Marcos, CA 92079
1983 San Pablo Dr San Marcos, CA 92078	P O Box 924133 Houston, TX 77292
1984 Acorn Rd San Marcos, CA 92078	P O Box 93731 Phoenix, AZ 85070
1984 Falling Leaf Ct San Marcos, CA 92078	P O Box 9475 Rancho Santa Fe, CA 92067
1985 Acorn Rd San Marcos, CA 92078	P O Box 981173 West Sacramento, CA 95798
1986 White Oak Ct San Marcos, CA 92078	Pmb #535, P O Box 5000 Rancho Santa Fe, CA 92067

Appendix C
Air Quality, Greenhouse Gas, and Energy

C.1 Air Quality and Greenhouse Gas CalEEMod Outputs and Helicopter Criteria Pollutant and GHG calculations

C.2 Fuel Use Estimates

C.1 Air Quality and Greenhouse Gas CalEEMod Outputs and Helicopter Criteria Pollutant and GHG Calculations

SDG&E TL 6975 Project

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2021
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Overall construction schedule (December 2019 - November 2020) and general phases provided by client; schedule was prepared based on total number of work days with assumptions regarding schedule overlaps.

Off-road Equipment -

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks; mower assumed to be "other construction equipment."

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks.

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client.

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks; pressure digger is substituted by bore/drill rig.

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks; pressure digger is substituted by bore/drill rig.

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks; pressure digger is substituted by bore/drill rig.

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks.

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Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks.

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks; double-bullwheel and drum puller assumed to be "other construction equipment."

Off-road Equipment - Construction eqiupment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks; double-bullwheel and drum puller assumed to be "other construction equipment."

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks; double-bullwheel and drum puller assumed to be "other construction equipment."

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks; wire dolly and pulling rig assumed to be "other construction equipment."

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks; mower assumed to be "other construction equipment."

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks; mower assumed to be "other construction equipment."

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks; mower assumed to be "other construction equipment."

Off-road Equipment - Construction equipment, unit amount, hourse/day, and horsepower provided by client; all trucks assumed to be off-highway trucks; ditch witch substituted with a trencher.

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks; ditch witch substituted with a trencher.

Off-road Equipment - Construction equipment, unit amount, house/day, and horsepower provided by client; all trucks assumed to be off-highway trucks; ditch witch substituted with a trencher.

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks.

Off-road Equipment - Project specific information

Off-road Equipment - Project specific construction information

Off-road Equipment - Project specific construction information

SDG&E TL 6975 Project - San Diego County, Annual

Off-road Equipment - Project specific construction information
Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT - Based on information provided by client. All delivery trips accounted for with haul truck trips, using default trip lenghts of 20 miles.

On-road Fugitive Dust - Assumes 5% of vehicle travel would be on unpaved roads, with a mean vehicle speed of 15mph.

Grading - Acres to be graded based on data from project description and assumptions based on work areas for poles.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
tblConstructionPhase	NumDays	0.00	15.00
tblConstructionPhase	NumDays	0.00	15.00
tblConstructionPhase	NumDays	0.00	28.00
tblConstructionPhase	NumDays	0.00	48.00
tblConstructionPhase	NumDays	0.00	77.00
tblConstructionPhase	NumDays	0.00	39.00
tblConstructionPhase	NumDays	0.00	31.00
tblConstructionPhase	NumDays	0.00	31.00
tblConstructionPhase	NumDays	0.00	15.00
tblConstructionPhase	NumDays	0.00	98.00
tblConstructionPhase	NumDays	0.00	77.00
tblConstructionPhase	NumDays	0.00	2.00
tblConstructionPhase	NumDays	0.00	68.00
tblConstructionPhase	NumDays	0.00	55.00

tblConstructionPhase	NumDays	0.00	75.00
tblConstructionPhase	NumDays	0.00	11.00
tblConstructionPhase	NumDays	0.00	11.00
tblConstructionPhase	NumDays	0.00	18.00
tblConstructionPhase	NumDays	0.00	15.00
tblConstructionPhase	NumDays	0.00	33.00
tblConstructionPhase	NumDays	0.00	30.00
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tblConstructionPhase	NumDays	0.00	33.00
tblConstructionPhase	NumDays	0.00	45.00
tblConstructionPhase	NumDays	0.00	33.00
tblConstructionPhase	NumDays	0.00	63.00
tblConstructionPhase	NumDays	0.00	33.00
tblGrading	AcresOfGrading	0.00	0.18
tblGrading	AcresOfGrading	0.00	0.06
tblGrading	AcresOfGrading	0.00	0.04
tblGrading	AcresOfGrading	0.00	0.32
tblGrading	AcresOfGrading	0.00	0.10
tblGrading	AcresOfGrading	0.00	1.85
tblGrading	AcresOfGrading	0.00	0.01
tblGrading	AcresOfGrading	0.00	0.64
tblGrading	AcresOfGrading	0.00	0.25
tblGrading	AcresOfGrading	0.00	0.53
tblGrading	AcresOfGrading	0.00	0.32
tblGrading	AcresOfGrading	0.00	0.76
tblGrading	AcresOfGrading	18.75	2.84
tblGrading	AcresOfGrading	8.50	0.00

tblGrading	AcresOfGrading	0.00	0.23
tblGrading	AcresOfGrading	11.25	0.00
tblGrading	AcresOfGrading	8.25	0.00
tblGrading	AcresOfGrading	23.63	2.85
tblGrading	MaterialExported	0.00	1,403.00
tblGrading	MaterialExported	0.00	937.00
tblGrading	MaterialImported	0.00	3,063.00
tblOffRoadEquipment	HorsePower	97.00	250.00
tblOffRoadEquipment	HorsePower	97.00	37.00
tblOffRoadEquipment	HorsePower	97.00	300.00
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tblOffRoadEquipment	HorsePower	97.00	37.00
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tblOffRoadEquipment	HorsePower	97.00	37.00
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tblOffRoadEquipment	HorsePower	97.00	37.00
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tblOffRoadEquipment	PhaseName		05.1 Foundation Construction (Pier) - Seg 1
tblOffRoadEquipment	PhaseName		05.1 Foundation Construction (Pier) - Seg 1
tblOffRoadEquipment	PhaseName		05.1 Foundation Construction (Pier) - Seg 1
tblOffRoadEquipment	PhaseName		05.1 Foundation Construction (Pier) - Seg 1
tblOffRoadEquipment	PhaseName		05.1 Foundation Construction (Pier) - Seg 1
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tblOffRoadEquipment	UsageHours	6.00	3.00
tblOffRoadEquipment	UsageHours	6.00	3.00

tblOffRoadEquipment	UsageHours	6.00	3.00
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tblOffRoadEquipment	UsageHours	6.00	3.00
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tblOnRoadDust	HaulingPercentPave	100.00	95.00
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tblOnRoadDust	HaulingPercentPave	100.00	95.00
tblOnRoadDust	HaulingPercentPave	100.00	95.00

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tblOnRoadDust	HaulingPercentPave	100.00	95.00
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tblOnRoadDust	HaulingPercentPave	100.00	95.00
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tblOnRoadDust	MeanVehicleSpeed	40.00	15.00

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tblOnRoadDust	WorkerPercentPave	100.00	95.00
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tblTripsAndVMT	HaulingTripNumber	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00

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tblTripsAndVMT	WorkerTripNumber	0.00	34.00
tblTripsAndVMT	WorkerTripNumber	23.00	10.00
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tblTripsAndVMT	WorkerTripNumber	35.00	20.00
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tblTripsAndVMT	WorkerTripNumber	10.00	8.00
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tblTripsAndVMT	WorkerTripNumber	35.00	20.00
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tblTripsAndVMT	WorkerTripNumber	25.00	20.00
tblTripsAndVMT	WorkerTripNumber	25.00	20.00

tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	3.1400e-003	0.0301	0.0188	4.0000e-005	0.0429	1.4500e-003	0.0444	4.3900e-003	1.3400e-003	5.7300e-003	0.0000	3.7657	3.7657	1.1000e-003	0.0000	3.7933
2020	1.1718	10.9711	7.2062	0.0205	3.3148	0.4651	3.7799	0.3417	0.4306	0.7723	0.0000	1,798.3419	1,798.3419	0.5375	0.0000	1,811.7802
Maximum	**1.1718**	**10.9711**	**7.2062**	**0.0205**	**3.3148**	**0.4651**	**3.7799**	**0.3417**	**0.4306**	**0.7723**	**0.0000**	**1,798.3419**	**1,798.3419**	**0.5375**	**0.0000**	**1,811.7802**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	3.1400e-003	0.0301	0.0188	4.0000e-005	0.0429	1.4500e-003	0.0444	4.3900e-003	1.3400e-003	5.7200e-003	0.0000	3.7657	3.7657	1.1000e-003	0.0000	3.7933
2020	1.1718	10.9711	7.2061	0.0205	3.3148	0.4651	3.7799	0.3417	0.4306	0.7723	0.0000	1,798.3398	1,798.3398	0.5375	0.0000	1,811.7782
Maximum	**1.1718**	**10.9711**	**7.2061**	**0.0205**	**3.3148**	**0.4651**	**3.7799**	**0.3417**	**0.4306**	**0.7723**	**0.0000**	**1,798.3398**	**1,798.3398**	**0.5375**	**0.0000**	**1,811.7782**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	12-30-2019	3-29-2020	3.9785	3.9785
2	3-30-2020	6-29-2020	5.0202	5.0202
3	6-30-2020	9-29-2020	2.5831	2.5831
		Highest	5.0202	5.0202

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	12/30/2019	12/29/2019	5	0	
2	Site Preparation	Site Preparation	12/30/2019	12/29/2019	5	0	
3	01 Pre-Construction Activities	Grading	12/30/2019	2/7/2020	5	30	

4	Grading	Grading	12/30/2019	12/29/2019	5	0
5	Building Construction	Building Construction	12/30/2019	12/29/2019	5	0
6	Paving	Paving	12/30/2019	12/29/2019	5	0
7	Architectural Coating	Architectural Coating	12/30/2019	12/29/2019	5	0
8	02 Access Road Construction/Refreshing	Grading	1/21/2020	4/16/2020	5	63
9	03 Material Haul	Grading	1/21/2020	3/5/2020	5	33
10	04.1 Auger Holes, Direct Bury Poles - Seg 1	Grading	1/21/2020	2/27/2020	5	28
11	05.1 Foundation Construction (Pier) - Seg 1	Grading	1/21/2020	3/26/2020	5	48
12	11 AC Interference Mitigation System Installation	Grading	2/1/2020	5/19/2020	5	77
13	12.1 Micropile Foundation Construction	Grading	2/1/2020	3/26/2020	5	39
14	04.2 Auger Holes, Direct Bury Poles - Seg 2	Grading	2/28/2020	4/10/2020	5	31
15	06.1 Structure Installation and Assembly - Seg 1	Grading	2/28/2020	4/10/2020	5	31
16	10.1 Substation Work (San Marcos) below grade	Grading	2/28/2020	3/19/2020	5	15
17	08 Trenching for Installation of Undergound Cables	Grading	3/2/2020	7/15/2020	5	98
18	10.2 Substation Work (San Marcos) above grade	Building Construction	3/20/2020	4/9/2020	5	15
19	05.2 Foundation Construction (Pier) - Seg 2	Grading	3/27/2020	7/13/2020	5	77
20	04.3 Auger Holes, Direct Bury Poles - Seg 3	Grading	4/10/2020	4/13/2020	5	2
21	06.2 Structure Installation and Assembly - Seg 2	Grading	4/13/2020	7/15/2020	5	68
22	07.1 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 1	Grading	4/13/2020	6/26/2020	5	55
23	12.2 Micropile Foundation Construction	Grading	5/1/2020	8/13/2020	5	75
24	12.3 Micropile Foundation Construction	Grading	5/1/2020	5/15/2020	5	11
25	05.3 Foundation Construction (Pier) - Seg 3	Grading	6/1/2020	6/15/2020	5	11

26	06.3 Structure Installation and Assembly - Seg 3	Grading	6/8/2020	7/1/2020	5	18	
27	10.3 Substation Work (Escondido) below grade	Grading	6/8/2020	6/26/2020	5	15	
28	10.4 Substation Work (Escondido) above grade	Building Construction	6/27/2020	7/17/2020	5	15	
29	07.2 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 2	Grading	6/29/2020	8/12/2020	5	33	
30	09.1 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 1	Grading	6/29/2020	8/13/2020	5	34	
31	07.3 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 3	Grading	8/13/2020	9/28/2020	5	33	
32	09.3 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 3	Grading	8/14/2020	10/15/2020	5	45	
33	09.2 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 2	Grading	9/29/2020	11/12/2020	5	33	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
01 Pre-Construction Activities	Concrete/Industrial Saws	0	8.00	81	0.73
01 Pre-Construction Activities	Excavators	2	3.00	162	0.38
01 Pre-Construction Activities	Graders	2	5.00	174	0.41
01 Pre-Construction Activities	Off-Highway Trucks	2	3.00	250	0.38
01 Pre-Construction Activities	Off-Highway Trucks	2	4.00	250	0.38
01 Pre-Construction Activities	Off-Highway Trucks	1	4.00	250	0.38

01 Pre-Construction Activities	Other Construction Equipment	2	4.00	74	0.42
01 Pre-Construction Activities	Rubber Tired Dozers	0	1.00	247	0.40
01 Pre-Construction Activities	Tractors/Loaders/Backhoes	2	4.00	37	0.37
01 Pre-Construction Activities	Tractors/Loaders/Backhoes	1	4.00	250	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
02 Access Road Construction/Refreshing	Concrete/Industrial Saws	0	8.00	81	0.73
02 Access Road Construction/Refreshing	Graders	1	6.00	174	0.41
02 Access Road Construction/Refreshing	Off-Highway Tractors	1	4.00	250	0.44
02 Access Road Construction/Refreshing	Off-Highway Trucks	2	5.00	250	0.38
02 Access Road Construction/Refreshing	Rubber Tired Dozers	0	1.00	247	0.40
02 Access Road Construction/Refreshing	Tractors/Loaders/Backhoes	0	6.00	97	0.37

03 Material Haul	Concrete/Industrial Saws	0	8.00	81	0.73
03 Material Haul	Cranes	2	4.00	250	0.29
03 Material Haul	Forklifts	2	4.00	83	0.20
03 Material Haul	Rubber Tired Dozers	0	1.00	247	0.40
03 Material Haul	Tractors/Loaders/Backhoes	0	6.00	97	0.37
04.1 Auger Holes, Direct Bury Poles - Seg 1	Air Compressors	2	4.00	78	0.48
04.1 Auger Holes, Direct Bury Poles - Seg 1	Bore/Drill Rigs	2	6.00	82	0.50
04.1 Auger Holes, Direct Bury Poles - Seg 1	Bore/Drill Rigs	1	4.00	82	0.50
04.1 Auger Holes, Direct Bury Poles - Seg 1	Concrete/Industrial Saws	0	8.00	81	0.73
04.1 Auger Holes, Direct Bury Poles - Seg 1	Off-Highway Trucks	2	6.00	250	0.38
04.1 Auger Holes, Direct Bury Poles - Seg 1	Off-Highway Trucks	2	5.00	250	0.38
04.1 Auger Holes, Direct Bury Poles - Seg 1	Off-Highway Trucks	2	4.00	250	0.38
04.1 Auger Holes, Direct Bury Poles - Seg 1	Off-Highway Trucks	2	4.00	250	0.38
04.1 Auger Holes, Direct Bury Poles - Seg 1	Rubber Tired Dozers	0	1.00	247	0.40
04.1 Auger Holes, Direct Bury Poles - Seg 1	Tractors/Loaders/Backhoes	1	3.00	250	0.37
05.1 Foundation Construction (Pier) - Seg 1	Air Compressors	1	4.00	78	0.48
05.1 Foundation Construction (Pier) - Seg 1	Bore/Drill Rigs	1	7.00	82	0.50
05.1 Foundation Construction (Pier) - Seg 1	Concrete/Industrial Saws	0	8.00	81	0.73
05.1 Foundation Construction (Pier) - Seg 1	Excavators	1	4.00	162	0.38
05.1 Foundation Construction (Pier) - Seg 1	Forklifts	1	3.00	83	0.20
05.1 Foundation Construction (Pier) - Seg 1	Generator Sets	1	3.00	84	0.74
05.1 Foundation Construction (Pier) - Seg 1	Off-Highway Trucks	1	3.00	250	0.38
05.1 Foundation Construction (Pier) - Seg 1	Off-Highway Trucks	1	4.00	250	0.38

05.1 Foundation Construction (Pier) - Seg 1	Off-Highway Trucks	1	3.00	250	0.38
05.1 Foundation Construction (Pier) - Seg 1	Rubber Tired Dozers	0	1.00	247	0.40
05.1 Foundation Construction (Pier) - Seg 1	Tractors/Loaders/Backhoes	1	3.00	37	0.37
11 AC Interference Mitigation System Installation	Bore/Drill Rigs	1	8.00	500	0.50
11 AC Interference Mitigation System Installation	Off-Highway Trucks	1	4.00	430	0.38
11 AC Interference Mitigation System Installation	Off-Highway Trucks	1	6.00	550	0.38
11 AC Interference Mitigation System Installation	Off-Highway Trucks	1	8.00	550	0.38
11 AC Interference Mitigation System Installation	Off-Highway Trucks	1	4.00	310	0.38
11 AC Interference Mitigation System Installation	Other General Industrial Equipment	1	6.00	74	0.34
11 AC Interference Mitigation System Installation	Tractors/Loaders/Backhoes	1	2.00	300	0.37
04.2 Auger Holes, Direct Bury Poles - Seg 2	Air Compressors	2	4.00	78	0.48
04.2 Auger Holes, Direct Bury Poles - Seg 2	Bore/Drill Rigs	2	6.00	82	0.50
04.2 Auger Holes, Direct Bury Poles - Seg 2	Bore/Drill Rigs	1	4.00	82	0.50
04.2 Auger Holes, Direct Bury Poles - Seg 2	Concrete/Industrial Saws	0	8.00	81	0.73
04.2 Auger Holes, Direct Bury Poles - Seg 2	Off-Highway Trucks	2	6.00	250	0.38
04.2 Auger Holes, Direct Bury Poles - Seg 2	Off-Highway Trucks	2	5.00	250	0.38
04.2 Auger Holes, Direct Bury Poles - Seg 2	Off-Highway Trucks	2	4.00	250	0.38
04.2 Auger Holes, Direct Bury Poles - Seg 2	Off-Highway Trucks	2	4.00	250	0.38
04.2 Auger Holes, Direct Bury Poles - Seg 2	Rubber Tired Dozers	0	1.00	247	0.40
04.2 Auger Holes, Direct Bury Poles - Seg 2	Tractors/Loaders/Backhoes	1	3.00	250	0.37
06.1 Structure Installation and Assembly - Seg 1	Concrete/Industrial Saws	0	8.00	81	0.73
06.1 Structure Installation and Assembly - Seg 1	Off-Highway Trucks	2	4.00	250	0.38

06.1 Structure Installation and Assembly - Seg 1	Off-Highway Trucks	3	6.00	250	0.38
06.1 Structure Installation and Assembly - Seg 1	Off-Highway Trucks	2	5.00	250	0.38
06.1 Structure Installation and Assembly - Seg 1	Off-Highway Trucks	3	6.00	250	0.38
06.1 Structure Installation and Assembly - Seg 1	Rubber Tired Dozers	0	1.00	247	0.40
06.1 Structure Installation and Assembly - Seg 1	Tractors/Loaders/Backhoes	0	6.00	97	0.37
10.1 Substation Work (San Marcos) below grade	Bore/Drill Rigs	1	4.00	250	0.50
10.1 Substation Work (San Marcos) below grade	Concrete/Industrial Saws	0	8.00	81	0.73
10.1 Substation Work (San Marcos) below grade	Off-Highway Trucks	1	1.00	250	0.38
10.1 Substation Work (San Marcos) below grade	Off-Highway Trucks	1	4.00	250	0.38
10.1 Substation Work (San Marcos) below grade	Rubber Tired Dozers	0	1.00	247	0.40
10.1 Substation Work (San Marcos) below grade	Tractors/Loaders/Backhoes	0	6.00	97	0.37
10.1 Substation Work (San Marcos) below grade	Trenchers	1	3.00	250	0.50
08 Trenching for Installation of Undergound Cables	Concrete/Industrial Saws	0	8.00	81	0.73
08 Trenching for Installation of Undergound Cables	Cranes	1	4.00	226	0.29
08 Trenching for Installation of Undergound Cables	Off-Highway Tractors	1	3.00	250	0.44
08 Trenching for Installation of Undergound Cables	Off-Highway Trucks	2	3.00	400	0.38
08 Trenching for Installation of Undergound Cables	Off-Highway Trucks	1	3.00	250	0.38
08 Trenching for Installation of Undergound Cables	Off-Highway Trucks	1	4.00	250	0.38
08 Trenching for Installation of Undergound Cables	Other Construction Equipment	1	3.00	82	0.42
08 Trenching for Installation of Undergound Cables	Other Construction Equipment	1	4.00	82	0.42
08 Trenching for Installation of Undergound Cables	Rubber Tired Dozers	0	1.00	247	0.40
08 Trenching for Installation of Undergound Cables	Tractors/Loaders/Backhoes	1	3.00	97	0.37

10.2 Substation Work (San Marcos) above grade	Cranes	0	4.00	231	0.29
10.2 Substation Work (San Marcos) above grade	Forklifts	0	6.00	89	0.20
10.2 Substation Work (San Marcos) above grade	Off-Highway Tractors	1	1.00	250	0.44
10.2 Substation Work (San Marcos) above grade	Off-Highway Trucks	1	1.00	250	0.38
10.2 Substation Work (San Marcos) above grade	Off-Highway Trucks	1	3.00	250	0.38
10.2 Substation Work (San Marcos) above grade	Off-Highway Trucks	1	3.00	250	0.38
10.2 Substation Work (San Marcos) above grade	Off-Highway Trucks	1	1.00	250	0.38
10.2 Substation Work (San Marcos) above grade	Off-Highway Trucks	1	1.00	250	0.38
10.2 Substation Work (San Marcos) above grade	Off-Highway Trucks	1	3.00	250	0.38
10.2 Substation Work (San Marcos) above grade	Off-Highway Trucks	1	3.00	250	0.38
10.2 Substation Work (San Marcos) above grade	Off-Highway Trucks	2	1.00	250	0.38
10.2 Substation Work (San Marcos) above grade	Off-Highway Trucks	1	1.00	250	0.38
10.2 Substation Work (San Marcos) above grade	Off-Highway Trucks	1	1.00	250	0.38
10.2 Substation Work (San Marcos) above grade	Tractors/Loaders/Backhoes	0	8.00	97	0.37
05.2 Foundation Construction (Pier) - Seg 2	Air Compressors	1	4.00	78	0.48
05.2 Foundation Construction (Pier) - Seg 2	Bore/Drill Rigs	1	7.00	82	0.50
05.2 Foundation Construction (Pier) - Seg 2	Concrete/Industrial Saws	0	8.00	81	0.73
05.2 Foundation Construction (Pier) - Seg 2	Excavators	1	4.00	162	0.38
05.2 Foundation Construction (Pier) - Seg 2	Forklifts	1	3.00	83	0.20
05.2 Foundation Construction (Pier) - Seg 2	Generator Sets	1	3.00	84	0.74
05.2 Foundation Construction (Pier) - Seg 2	Off-Highway Trucks	1	3.00	250	0.38
05.2 Foundation Construction (Pier) - Seg 2	Off-Highway Trucks	1	4.00	250	0.38

05.2 Foundation Construction (Pier) - Seg 2	Off-Highway Trucks	1	3.00	250	0.38
05.2 Foundation Construction (Pier) - Seg 2	Rubber Tired Dozers	0	1.00	247	0.40
05.2 Foundation Construction (Pier) - Seg 2	Tractors/Loaders/Backhoes	1	3.00	37	0.37
04.3 Auger Holes, Direct Bury Poles - Seg 3	Air Compressors	2	4.00	78	0.48
04.3 Auger Holes, Direct Bury Poles - Seg 3	Bore/Drill Rigs	2	6.00	82	0.50
04.3 Auger Holes, Direct Bury Poles - Seg 3	Bore/Drill Rigs	1	4.00	82	0.50
04.3 Auger Holes, Direct Bury Poles - Seg 3	Concrete/Industrial Saws	0	8.00	81	0.73
04.3 Auger Holes, Direct Bury Poles - Seg 3	Off-Highway Trucks	2	6.00	250	0.38
04.3 Auger Holes, Direct Bury Poles - Seg 3	Off-Highway Trucks	2	5.00	250	0.38
04.3 Auger Holes, Direct Bury Poles - Seg 3	Off-Highway Trucks	2	4.00	250	0.38
04.3 Auger Holes, Direct Bury Poles - Seg 3	Off-Highway Trucks	2	4.00	250	0.38
04.3 Auger Holes, Direct Bury Poles - Seg 3	Rubber Tired Dozers	0	1.00	247	0.40
04.3 Auger Holes, Direct Bury Poles - Seg 3	Tractors/Loaders/Backhoes	1	3.00	250	0.37
06.2 Structure Installation and Assembly - Seg 2	Concrete/Industrial Saws	0	8.00	81	0.73
06.2 Structure Installation and Assembly - Seg 2	Off-Highway Trucks	2	4.00	250	0.38
06.2 Structure Installation and Assembly - Seg 2	Off-Highway Trucks	3	6.00	250	0.38
06.2 Structure Installation and Assembly - Seg 2	Off-Highway Trucks	2	5.00	250	0.38
06.2 Structure Installation and Assembly - Seg 2	Off-Highway Trucks	3	6.00	250	0.38
06.2 Structure Installation and Assembly - Seg 2	Rubber Tired Dozers	0	1.00	247	0.40
06.2 Structure Installation and Assembly - Seg 2	Tractors/Loaders/Backhoes	0	6.00	97	0.37
07.1 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 1	Concrete/Industrial Saws	0	8.00	81	0.73
07.1 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 1	Forklifts	1	3.00	83	0.20

07.1 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 1	Off-Highway Trucks	2	6.00	250	0.38
07.1 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 1	Off-Highway Trucks	2	4.00	250	0.38
07.1 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 1	Off-Highway Trucks	2	4.00	250	0.38
07.1 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 1	Off-Highway Trucks	1	4.00	250	0.38
07.1 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 1	Off-Highway Trucks	1	5.00	82	0.44
07.1 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 1	Other Construction Equipment	1	6.00	300	0.42
07.1 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 1	Other Construction Equipment	1	6.00	300	0.42
07.1 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 1	Rubber Tired Dozers	0	1.00	247	0.40
07.1 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 1	Tractors/Loaders/Backhoes	0	6.00	97	0.37
05.3 Foundation Construction (Pier) - Seg 3	Air Compressors	1	4.00	78	0.48
05.3 Foundation Construction (Pier) - Seg 3	Bore/Drill Rigs	1	7.00	82	0.50
05.3 Foundation Construction (Pier) - Seg 3	Concrete/Industrial Saws	0	8.00	81	0.73
05.3 Foundation Construction (Pier) - Seg 3	Excavators	1	4.00	162	0.38
05.3 Foundation Construction (Pier) - Seg 3	Forklifts	1	3.00	83	0.20
05.3 Foundation Construction (Pier) - Seg 3	Generator Sets	1	3.00	84	0.74
05.3 Foundation Construction (Pier) - Seg 3	Off-Highway Trucks	1	3.00	250	0.38
05.3 Foundation Construction (Pier) - Seg 3	Off-Highway Trucks	1	4.00	250	0.38
05.3 Foundation Construction (Pier) - Seg 3	Off-Highway Trucks	1	3.00	250	0.38
05.3 Foundation Construction (Pier) - Seg 3	Rubber Tired Dozers	0	1.00	247	0.40
05.3 Foundation Construction (Pier) - Seg 3	Tractors/Loaders/Backhoes	1	3.00	37	0.37
06.3 Structure Installation and Assembly - Seg 3	Concrete/Industrial Saws	0	8.00	81	0.73
06.3 Structure Installation and Assembly - Seg 3	Off-Highway Trucks	2	4.00	250	0.38

06.3 Structure Installation and Assembly - Seg 3	Off-Highway Trucks	3	6.00	250	0.38
06.3 Structure Installation and Assembly - Seg 3	Off-Highway Trucks	2	5.00	250	0.38
06.3 Structure Installation and Assembly - Seg 3	Off-Highway Trucks	3	6.00	250	0.38
06.3 Structure Installation and Assembly - Seg 3	Rubber Tired Dozers	0	1.00	247	0.40
06.3 Structure Installation and Assembly - Seg 3	Tractors/Loaders/Backhoes	0	6.00	97	0.37
10.3 Substation Work (Escondido) below grade	Bore/Drill Rigs	1	4.00	250	0.50
10.3 Substation Work (Escondido) below grade	Concrete/Industrial Saws	0	8.00	81	0.73
10.3 Substation Work (Escondido) below grade	Off-Highway Trucks	1	1.00	250	0.38
10.3 Substation Work (Escondido) below grade	Off-Highway Trucks	1	4.00	250	0.38
10.3 Substation Work (Escondido) below grade	Rubber Tired Dozers	0	1.00	247	0.40
10.3 Substation Work (Escondido) below grade	Tractors/Loaders/Backhoes	0	6.00	97	0.37
10.3 Substation Work (Escondido) below grade	Trenchers	1	3.00	250	0.50
10.4 Substation Work (Escondido) above grade	Cranes	0	4.00	231	0.29
10.4 Substation Work (Escondido) above grade	Forklifts	0	6.00	89	0.20
10.4 Substation Work (Escondido) above grade	Off-Highway Trucks	1	1.00	250	0.38
10.4 Substation Work (Escondido) above grade	Off-Highway Trucks	1	1.00	250	0.38
10.4 Substation Work (Escondido) above grade	Off-Highway Trucks	1	3.00	250	0.38
10.4 Substation Work (Escondido) above grade	Off-Highway Trucks	1	3.00	250	0.38
10.4 Substation Work (Escondido) above grade	Off-Highway Trucks	1	1.00	250	0.38
10.4 Substation Work (Escondido) above grade	Off-Highway Trucks	1	1.00	250	0.38
10.4 Substation Work (Escondido) above grade	Off-Highway Trucks	1	3.00	250	0.38
10.4 Substation Work (Escondido) above grade	Off-Highway Trucks	1	3.00	250	0.38

10.4 Substation Work (Escondido) above grade	Off-Highway Trucks	2	1.00	250	0.38
10.4 Substation Work (Escondido) above grade	Off-Highway Trucks	1	1.00	250	0.38
10.4 Substation Work (Escondido) above grade	Off-Highway Trucks	1	1.00	250	0.38
10.4 Substation Work (Escondido) above grade	Tractors/Loaders/Backhoes	0	8.00	97	0.37
07.2 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 2	Concrete/Industrial Saws	0	8.00	81	0.73
07.2 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 2	Forklifts	1	3.00	83	0.20
07.2 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 2	Off-Highway Trucks	2	6.00	250	0.38
07.2 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 2	Off-Highway Trucks	2	4.00	250	0.38
07.2 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 2	Off-Highway Trucks	2	4.00	250	0.38
07.2 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 2	Off-Highway Trucks	1	4.00	250	0.38
07.2 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 2	Off-Highway Trucks	1	5.00	82	0.38
07.2 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 2	Other Construction Equipment	1	6.00	300	0.42
07.2 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 2	Other Construction Equipment	1	6.00	300	0.42
07.2 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 2	Rubber Tired Dozers	0	1.00	247	0.40
07.2 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 2	Tractors/Loaders/Backhoes	0	6.00	97	0.37
09.1 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 1	Concrete/Industrial Saws	0	8.00	81	0.73
09.1 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 1	Excavators	1	4.00	162	0.38
09.1 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 1	Graders	1	4.00	174	0.41
09.1 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 1	Off-Highway Trucks	1	5.00	400	0.38
09.1 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 1	Off-Highway Trucks	2	4.00	250	0.38
09.1 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 1	Off-Highway Trucks	1	4.00	250	0.38
09.1 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 1	Other Construction Equipment	1	4.00	74	0.42

09.1 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 1	Rubber Tired Dozers	0	1.00	247	0.40
09.1 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 1	Tractors/Loaders/Backhoes	1	4.00	97	0.37
09.1 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 1	Tractors/Loaders/Backhoes	1	4.00	37	0.37
09.1 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 1	Tractors/Loaders/Backhoes	1	4.00	250	0.37
07.3 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 3	Concrete/Industrial Saws	0	8.00	81	0.73
07.3 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 3	Forklifts	1	3.00	83	0.20
07.3 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 3	Off-Highway Trucks	2	6.00	250	0.38
07.3 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 3	Off-Highway Trucks	2	4.00	250	0.38
07.3 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 3	Off-Highway Trucks	2	4.00	250	0.38
07.3 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 3	Off-Highway Trucks	1	4.00	250	0.38
07.3 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 3	Off-Highway Trucks	1	5.00	82	0.38
07.3 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 3	Other Construction Equipment	1	6.00	300	0.42
07.3 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 3	Other Construction Equipment	1	6.00	300	0.42
07.3 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 3	Rubber Tired Dozers	0	1.00	247	0.40
07.3 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 3	Tractors/Loaders/Backhoes	0	6.00	97	0.37
09.3 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 3	Concrete/Industrial Saws	0	8.00	81	0.73
09.3 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 3	Excavators	1	4.00	162	0.38
09.3 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 3	Graders	1	4.00	174	0.41
09.3 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 3	Off-Highway Trucks	1	5.00	400	0.38
09.3 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 3	Off-Highway Trucks	2	4.00	250	0.38
09.3 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 3	Off-Highway Trucks	1	4.00	250	0.38
09.3 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 3	Other Construction Equipment	1	4.00	74	0.42

09.3 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 3	Rubber Tired Dozers	0	1.00	247	0.40
09.3 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 3	Tractors/Loaders/Backhoes	1	4.00	97	0.37
09.3 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 3	Tractors/Loaders/Backhoes	1	4.00	37	0.37
09.3 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 3	Tractors/Loaders/Backhoes	1	4.00	250	0.37
09.2 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 2	Concrete/Industrial Saws	0	8.00	81	0.73
09.2 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 2	Excavators	1	4.00	162	0.38
09.2 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 2	Graders	1	4.00	174	0.41
09.2 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 2	Off-Highway Trucks	1	5.00	400	0.38
09.2 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 2	Off-Highway Trucks	2	4.00	250	0.38
09.2 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 2	Off-Highway Trucks	1	4.00	250	0.38
09.2 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 2	Other Construction Equipment	1	4.00	74	0.42
09.2 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 2	Rubber Tired Dozers	0	1.00	247	0.40
09.2 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 2	Tractors/Loaders/Backhoes	1	4.00	97	0.37
09.2 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 2	Tractors/Loaders/Backhoes	1	4.00	37	0.37
09.2 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 2	Tractors/Loaders/Backhoes	1	4.00	250	0.37
12.1 Micropile Foundation Construction	Air Compressors	2	3.00	78	0.48
12.1 Micropile Foundation Construction	Cranes	2	3.00	226	0.29
12.1 Micropile Foundation Construction	Forklifts	2	3.00	83	0.20
12.1 Micropile Foundation Construction	Generator Sets	2	4.00	84	0.74
12.1 Micropile Foundation Construction	Off-Highway Trucks	2	4.00	250	0.38
12.1 Micropile Foundation Construction	Off-Highway Trucks	2	4.00	250	0.38
12.1 Micropile Foundation Construction	Off-Highway Trucks	1	3.00	250	0.38
12.1 Micropile Foundation Construction	Off-Highway Trucks	1	4.00	250	0.38
12.1 Micropile Foundation Construction	Other General Industrial Equipment	1	3.00	84	0.34

12.1 Micropile Foundation Construction	Tractors/Loaders/Backhoes	1	3.00	97	0.37
12.1 Micropile Foundation Construction	Tractors/Loaders/Backhoes	1	3.00	250	0.37
12.2 Micropile Foundation Construction	Air Compressors	2	3.00	78	0.48
12.2 Micropile Foundation Construction	Cranes	2	3.00	226	0.29
12.2 Micropile Foundation Construction	Forklifts	2	3.00	83	0.20
12.2 Micropile Foundation Construction	Generator Sets	2	4.00	84	0.74
12.2 Micropile Foundation Construction	Off-Highway Trucks	2	4.00	250	0.38
12.2 Micropile Foundation Construction	Off-Highway Trucks	2	4.00	250	0.38
12.2 Micropile Foundation Construction	Off-Highway Trucks	1	3.00	250	0.38
12.2 Micropile Foundation Construction	Off-Highway Trucks	1	4.00	250	0.38
12.2 Micropile Foundation Construction	Other General Industrial Equipment	1	3.00	84	0.34
12.2 Micropile Foundation Construction	Tractors/Loaders/Backhoes	1	3.00	97	0.37
12.2 Micropile Foundation Construction	Tractors/Loaders/Backhoes	1	3.00	250	0.37
12.3 Micropile Foundation Construction	Air Compressors	2	3.00	78	0.48
12.3 Micropile Foundation Construction	Cranes	2	3.00	226	0.29
12.3 Micropile Foundation Construction	Forklifts	2	3.00	83	0.20
12.3 Micropile Foundation Construction	Generator Sets	2	4.00	84	0.74
12.3 Micropile Foundation Construction	Off-Highway Trucks	2	4.00	250	0.38
12.3 Micropile Foundation Construction	Off-Highway Trucks	2	4.00	250	0.38
12.3 Micropile Foundation Construction	Off-Highway Trucks	1	3.00	250	0.38
12.3 Micropile Foundation Construction	Off-Highway Trucks	1	4.00	250	0.38
12.3 Micropile Foundation Construction	Other General Industrial Equipment	1	3.00	84	0.34
12.3 Micropile Foundation Construction	Tractors/Loaders/Backhoes	1	3.00	97	0.37
12.3 Micropile Foundation Construction	Tractors/Loaders/Backhoes	1	3.00	250	0.37

Trips and VMT

SDG&E TL 6975 Project - San Diego County, Annual

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
01 Pre-Construction Activities	14	20.00	0.00	80.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
02 Access Road Construction/Refreshi	4	10.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
03 Material Haul	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
04.1 Auger Holes, Direct Bury Poles - Se	14	20.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
05.1 Foundation Construction (Pier) - S	9	10.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
04.2 Auger Holes, Direct Bury Poles - Se	14	20.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
06.1 Structure Installation and Assem	10	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
10.1 Substation Work (San Marcos) below gr	4	8.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
08 Trenching for Installation of Undergo	9	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
10.2 Substation Work (San Marcos) above g	12	34.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
05.2 Foundation Construction (Pier) - S	9	10.00	0.00	281.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
04.3 Auger Holes, Direct Bury Poles - Se	14	20.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
06.2 Structure Installation and Assem	10	20.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
07.1 Stringing Activities/Transfer Con	11	20.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
05.3 Foundation Construction (Pier) - S	9	10.00	0.00	61.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
06.3 Structure Installation and Assem	10	20.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
10.3 Substation Work (Escondido) below gra	4	8.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
10.4 Substation Work (Escondido) above gra	12	34.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
07.2 Stringing Activities/Transfer Con	11	20.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

09.1 Demobilization/ROW	10	20.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
07.3 Stringing Activities/Transfer Con	11	20.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
09.3 Demobilization/ROW	10	20.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
09.2 Demobilization/ROW	10	20.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
11 AC Interference Mitigation System Inst	7	8.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
12.1 Micropile Foundation Constructi	17	20.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
12.2 Micropile Foundation Constructi	17	20.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
12.3 Micropile Foundation Constructi	17	20.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 01 Pre-Construction Activities - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.5100e-003	0.0000	1.5100e-003	1.6000e-004	0.0000	1.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0400e-003	0.0292	0.0181	4.0000e-005		1.4500e-003	1.4500e-003		1.3300e-003	1.3300e-003	0.0000	3.4082	3.4082	1.0800e-003	0.0000	3.4351
Total	**3.0400e-003**	**0.0292**	**0.0181**	**4.0000e-005**	**1.5100e-003**	**1.4500e-003**	**2.9600e-003**	**1.6000e-004**	**1.3300e-003**	**1.4900e-003**	**0.0000**	**3.4082**	**3.4082**	**1.0800e-003**	**0.0000**	**3.4351**

3.4 01 Pre-Construction Activities - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	8.2000e-004	1.8000e-004	0.0000	0.0326	0.0000	0.0326	3.3200e-003	0.0000	3.3200e-003	0.0000	0.2079	0.2079	2.0000e-005	0.0000	0.2084
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	6.0000e-005	5.9000e-004	0.0000	8.8200e-003	0.0000	8.8200e-003	9.0000e-004	0.0000	9.1000e-004	0.0000	0.1497	0.1497	0.0000	0.0000	0.1498
Total	**1.0000e-004**	**8.8000e-004**	**7.7000e-004**	**0.0000**	**0.0414**	**0.0000**	**0.0414**	**4.2200e-003**	**0.0000**	**4.2300e-003**	**0.0000**	**0.3576**	**0.3576**	**2.0000e-005**	**0.0000**	**0.3582**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.5100e-003	0.0000	1.5100e-003	1.6000e-004	0.0000	1.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0400e-003	0.0292	0.0181	4.0000e-005		1.4500e-003	1.4500e-003		1.3300e-003	1.3300e-003	0.0000	3.4081	3.4081	1.0800e-003	0.0000	3.4351
Total	**3.0400e-003**	**0.0292**	**0.0181**	**4.0000e-005**	**1.5100e-003**	**1.4500e-003**	**2.9600e-003**	**1.6000e-004**	**1.3300e-003**	**1.4900e-003**	**0.0000**	**3.4081**	**3.4081**	**1.0800e-003**	**0.0000**	**3.4351**

3.4 01 Pre-Construction Activities - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	8.2000e-004	1.8000e-004	0.0000	0.0326	0.0000	0.0326	3.3200e-003	0.0000	3.3200e-003	0.0000	0.2079	0.2079	2.0000e-005	0.0000	0.2084
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	6.0000e-005	5.9000e-004	0.0000	8.8200e-003	0.0000	8.8200e-003	9.0000e-004	0.0000	9.1000e-004	0.0000	0.1497	0.1497	0.0000	0.0000	0.1498
Total	**1.0000e-004**	**8.8000e-004**	**7.7000e-004**	**0.0000**	**0.0414**	**0.0000**	**0.0414**	**4.2200e-003**	**0.0000**	**4.2300e-003**	**0.0000**	**0.3576**	**0.3576**	**2.0000e-005**	**0.0000**	**0.3582**

3.4 01 Pre-Construction Activities - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.5100e-003	0.0000	1.5100e-003	1.6000e-004	0.0000	1.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0390	0.3628	0.2477	5.3000e-004		0.0179	0.0179		0.0165	0.0165	0.0000	46.6889	46.6889	0.0151	0.0000	47.0664
Total	**0.0390**	**0.3628**	**0.2477**	**5.3000e-004**	**1.5100e-003**	**0.0179**	**0.0194**	**1.6000e-004**	**0.0165**	**0.0167**	**0.0000**	**46.6889**	**46.6889**	**0.0151**	**0.0000**	**47.0664**

3.4 01 Pre-Construction Activities - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-004	0.0106	2.4300e-003	3.0000e-005	0.0327	3.0000e-005	0.0328	3.3800e-003	3.0000e-005	3.4100e-003	0.0000	2.8793	2.8793	2.6000e-004	0.0000	2.8858
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0300e-003	7.6000e-004	7.4900e-003	2.0000e-005	0.1235	2.0000e-005	0.1235	0.0127	1.0000e-005	0.0127	0.0000	2.0297	2.0297	6.0000e-005	0.0000	2.0312
Total	**1.3300e-003**	**0.0114**	**9.9200e-003**	**5.0000e-005**	**0.1562**	**5.0000e-005**	**0.1562**	**0.0160**	**4.0000e-005**	**0.0161**	**0.0000**	**4.9090**	**4.9090**	**3.2000e-004**	**0.0000**	**4.9170**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.5100e-003	0.0000	1.5100e-003	1.6000e-004	0.0000	1.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0390	0.3628	0.2477	5.3000e-004		0.0179	0.0179		0.0165	0.0165	0.0000	46.6888	46.6888	0.0151	0.0000	47.0663
Total	**0.0390**	**0.3628**	**0.2477**	**5.3000e-004**	**1.5100e-003**	**0.0179**	**0.0194**	**1.6000e-004**	**0.0165**	**0.0167**	**0.0000**	**46.6888**	**46.6888**	**0.0151**	**0.0000**	**47.0663**

3.4 01 Pre-Construction Activities - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-004	0.0106	2.4300e-003	3.0000e-005	0.0327	3.0000e-005	0.0328	3.3800e-003	3.0000e-005	3.4100e-003	0.0000	2.8793	2.8793	2.6000e-004	0.0000	2.8858
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0300e-003	7.6000e-004	7.4900e-003	2.0000e-005	0.1235	2.0000e-005	0.1235	0.0127	1.0000e-005	0.0127	0.0000	2.0297	2.0297	6.0000e-005	0.0000	2.0312
Total	**1.3300e-003**	**0.0114**	**9.9200e-003**	**5.0000e-005**	**0.1562**	**5.0000e-005**	**0.1562**	**0.0160**	**4.0000e-005**	**0.0161**	**0.0000**	**4.9090**	**4.9090**	**3.2000e-004**	**0.0000**	**4.9170**

3.5 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.8 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.8 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.8 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.9 02 Access Road Construction/Refreshing - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.5100e-003	0.0000	1.5100e-003	1.6000e-004	0.0000	1.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0417	0.4085	0.2355	6.2000e-004		0.0183	0.0183		0.0168	0.0168	0.0000	54.0852	54.0852	0.0175	0.0000	54.5225
Total	**0.0417**	**0.4085**	**0.2355**	**6.2000e-004**	**1.5100e-003**	**0.0183**	**0.0198**	**1.6000e-004**	**0.0168**	**0.0170**	**0.0000**	**54.0852**	**54.0852**	**0.0175**	**0.0000**	**54.5225**

3.9 02 Access Road Construction/Refreshing - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.8000e-004	7.0000e-005	0.0000	8.2000e-004	0.0000	8.2000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.0771	0.0771	1.0000e-005	0.0000	0.0773
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1600e-003	8.6000e-004	8.4300e-003	3.0000e-005	0.1389	2.0000e-005	0.1389	0.0142	2.0000e-005	0.0143	0.0000	2.2834	2.2834	7.0000e-005	0.0000	2.2851
Total	**1.1700e-003**	**1.1400e-003**	**8.5000e-003**	**3.0000e-005**	**0.1397**	**2.0000e-005**	**0.1397**	**0.0143**	**2.0000e-005**	**0.0144**	**0.0000**	**2.3605**	**2.3605**	**8.0000e-005**	**0.0000**	**2.3624**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.5100e-003	0.0000	1.5100e-003	1.6000e-004	0.0000	1.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0417	0.4085	0.2355	6.2000e-004		0.0183	0.0183		0.0168	0.0168	0.0000	54.0851	54.0851	0.0175	0.0000	54.5224
Total	**0.0417**	**0.4085**	**0.2355**	**6.2000e-004**	**1.5100e-003**	**0.0183**	**0.0198**	**1.6000e-004**	**0.0168**	**0.0170**	**0.0000**	**54.0851**	**54.0851**	**0.0175**	**0.0000**	**54.5224**

3.9 02 Access Road Construction/Refreshing - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.8000e-004	7.0000e-005	0.0000	8.2000e-004	0.0000	8.2000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.0771	0.0771	1.0000e-005	0.0000	0.0773
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1600e-003	8.6000e-004	8.4300e-003	3.0000e-005	0.1389	2.0000e-005	0.1389	0.0142	2.0000e-005	0.0143	0.0000	2.2834	2.2834	7.0000e-005	0.0000	2.2851
Total	**1.1700e-003**	**1.1400e-003**	**8.5000e-003**	**3.0000e-005**	**0.1397**	**2.0000e-005**	**0.1397**	**0.0143**	**2.0000e-005**	**0.0144**	**0.0000**	**2.3605**	**2.3605**	**8.0000e-005**	**0.0000**	**2.3624**

3.10 03 Material Haul - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0103	0.1162	0.0559	1.3000e-004		5.4600e-003	5.4600e-003		5.0200e-003	5.0200e-003	0.0000	11.1187	11.1187	3.6000e-003	0.0000	11.2086
Total	**0.0103**	**0.1162**	**0.0559**	**1.3000e-004**	**0.0000**	**5.4600e-003**	**5.4600e-003**	**0.0000**	**5.0200e-003**	**5.0200e-003**	**0.0000**	**11.1187**	**11.1187**	**3.6000e-003**	**0.0000**	**11.2086**

3.10 03 Material Haul - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.1000e-004	4.5000e-004	4.4200e-003	1.0000e-005	0.0728	1.0000e-005	0.0728	7.4600e-003	1.0000e-005	7.4700e-003	0.0000	1.1960	1.1960	4.0000e-005	0.0000	1.1969
Total	**6.1000e-004**	**4.5000e-004**	**4.4200e-003**	**1.0000e-005**	**0.0728**	**1.0000e-005**	**0.0728**	**7.4600e-003**	**1.0000e-005**	**7.4700e-003**	**0.0000**	**1.1960**	**1.1960**	**4.0000e-005**	**0.0000**	**1.1969**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0103	0.1162	0.0559	1.3000e-004		5.4600e-003	5.4600e-003		5.0200e-003	5.0200e-003	0.0000	11.1187	11.1187	3.6000e-003	0.0000	11.2086
Total	**0.0103**	**0.1162**	**0.0559**	**1.3000e-004**	**0.0000**	**5.4600e-003**	**5.4600e-003**	**0.0000**	**5.0200e-003**	**5.0200e-003**	**0.0000**	**11.1187**	**11.1187**	**3.6000e-003**	**0.0000**	**11.2086**

3.10 03 Material Haul - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.1000e-004	4.5000e-004	4.4200e-003	1.0000e-005	0.0728	1.0000e-005	0.0728	7.4600e-003	1.0000e-005	7.4700e-003	0.0000	1.1960	1.1960	4.0000e-005	0.0000	1.1969
Total	**6.1000e-004**	**4.5000e-004**	**4.4200e-003**	**1.0000e-005**	**0.0728**	**1.0000e-005**	**0.0728**	**7.4600e-003**	**1.0000e-005**	**7.4700e-003**	**0.0000**	**1.1960**	**1.1960**	**4.0000e-005**	**0.0000**	**1.1969**

3.11 04.1 Auger Holes, Direct Bury Poles - Seg 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0000e-004	0.0000	1.0000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0421	0.3963	0.2667	7.4000e-004		0.0169	0.0169		0.0158	0.0158	0.0000	64.4615	64.4615	0.0197	0.0000	64.9534
Total	**0.0421**	**0.3963**	**0.2667**	**7.4000e-004**	**1.0000e-004**	**0.0169**	**0.0170**	**1.0000e-005**	**0.0158**	**0.0158**	**0.0000**	**64.4615**	**64.4615**	**0.0197**	**0.0000**	**64.9534**

3.11 04.1 Auger Holes, Direct Bury Poles - Seg 1 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.8000e-004	7.0000e-005	0.0000	8.2000e-004	0.0000	8.2000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.0771	0.0771	1.0000e-005	0.0000	0.0773
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0300e-003	7.6000e-004	7.4900e-003	2.0000e-005	0.1235	2.0000e-005	0.1235	0.0127	1.0000e-005	0.0127	0.0000	2.0297	2.0297	6.0000e-005	0.0000	2.0312
Total	**1.0400e-003**	**1.0400e-003**	**7.5600e-003**	**2.0000e-005**	**0.1243**	**2.0000e-005**	**0.1243**	**0.0127**	**1.0000e-005**	**0.0128**	**0.0000**	**2.1068**	**2.1068**	**7.0000e-005**	**0.0000**	**2.1085**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0000e-004	0.0000	1.0000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0421	0.3963	0.2667	7.4000e-004		0.0169	0.0169		0.0158	0.0158	0.0000	64.4614	64.4614	0.0197	0.0000	64.9533
Total	**0.0421**	**0.3963**	**0.2667**	**7.4000e-004**	**1.0000e-004**	**0.0169**	**0.0170**	**1.0000e-005**	**0.0158**	**0.0158**	**0.0000**	**64.4614**	**64.4614**	**0.0197**	**0.0000**	**64.9533**

3.11 04.1 Auger Holes, Direct Bury Poles - Seg 1 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.8000e-004	7.0000e-005	0.0000	8.2000e-004	0.0000	8.2000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.0771	0.0771	1.0000e-005	0.0000	0.0773
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0300e-003	7.6000e-004	7.4900e-003	2.0000e-005	0.1235	2.0000e-005	0.1235	0.0127	1.0000e-005	0.0127	0.0000	2.0297	2.0297	6.0000e-005	0.0000	2.0312
Total	**1.0400e-003**	**1.0400e-003**	**7.5600e-003**	**2.0000e-005**	**0.1243**	**2.0000e-005**	**0.1243**	**0.0127**	**1.0000e-005**	**0.0128**	**0.0000**	**2.1068**	**2.1068**	**7.0000e-005**	**0.0000**	**2.1085**

3.12 05.1 Foundation Construction (Pier) - Seg 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0310	0.2810	0.2441	5.1000e-004		0.0137	0.0137		0.0129	0.0129	0.0000	44.7244	44.7244	0.0121	0.0000	45.0269
Total	**0.0310**	**0.2810**	**0.2441**	**5.1000e-004**	**3.0000e-005**	**0.0137**	**0.0138**	**0.0000**	**0.0129**	**0.0129**	**0.0000**	**44.7244**	**44.7244**	**0.0121**	**0.0000**	**45.0269**

3.12 05.1 Foundation Construction (Pier) - Seg 1 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.8000e-004	7.0000e-005	0.0000	8.2000e-004	0.0000	8.2000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.0771	0.0771	1.0000e-005	0.0000	0.0773
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.8000e-004	6.5000e-004	6.4200e-003	2.0000e-005	0.1058	1.0000e-005	0.1058	0.0109	1.0000e-005	0.0109	0.0000	1.7397	1.7397	5.0000e-005	0.0000	1.7410
Total	**8.9000e-004**	**9.3000e-004**	**6.4900e-003**	**2.0000e-005**	**0.1066**	**1.0000e-005**	**0.1067**	**0.0109**	**1.0000e-005**	**0.0110**	**0.0000**	**1.8168**	**1.8168**	**6.0000e-005**	**0.0000**	**1.8183**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0310	0.2810	0.2441	5.1000e-004		0.0137	0.0137		0.0129	0.0129	0.0000	44.7243	44.7243	0.0121	0.0000	45.0269
Total	**0.0310**	**0.2810**	**0.2441**	**5.1000e-004**	**3.0000e-005**	**0.0137**	**0.0138**	**0.0000**	**0.0129**	**0.0129**	**0.0000**	**44.7243**	**44.7243**	**0.0121**	**0.0000**	**45.0269**

3.12 05.1 Foundation Construction (Pier) - Seg 1 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.8000e-004	7.0000e-005	0.0000	8.2000e-004	0.0000	8.2000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.0771	0.0771	1.0000e-005	0.0000	0.0773
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.8000e-004	6.5000e-004	6.4200e-003	2.0000e-005	0.1058	1.0000e-005	0.1058	0.0109	1.0000e-005	0.0109	0.0000	1.7397	1.7397	5.0000e-005	0.0000	1.7410
Total	**8.9000e-004**	**9.3000e-004**	**6.4900e-003**	**2.0000e-005**	**0.1066**	**1.0000e-005**	**0.1067**	**0.0109**	**1.0000e-005**	**0.0110**	**0.0000**	**1.8168**	**1.8168**	**6.0000e-005**	**0.0000**	**1.8183**

3.13 11 AC Interference Mitigation System Installation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1316	1.3140	0.8842	2.6500e-003		0.0506	0.0506		0.0466	0.0466	0.0000	232.9726	232.9726	0.0754	0.0000	234.8563
Total	**0.1316**	**1.3140**	**0.8842**	**2.6500e-003**	**0.0000**	**0.0506**	**0.0506**	**0.0000**	**0.0466**	**0.0466**	**0.0000**	**232.9726**	**232.9726**	**0.0754**	**0.0000**	**234.8563**

3.13 11 AC Interference Mitigation System Installation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1400e-003	8.4000e-004	8.2400e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.6000e-004	2.0000e-005	6.7000e-004	0.0000	2.2326	2.2326	7.0000e-005	0.0000	2.2343
Total	**1.1400e-003**	**9.8000e-004**	**8.2700e-003**	**2.0000e-005**	**2.4800e-003**	**2.0000e-005**	**2.5000e-003**	**6.6000e-004**	**2.0000e-005**	**6.7000e-004**	**0.0000**	**2.2712**	**2.2712**	**7.0000e-005**	**0.0000**	**2.2729**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1316	1.3140	0.8842	2.6500e-003		0.0506	0.0506		0.0466	0.0466	0.0000	232.9723	232.9723	0.0754	0.0000	234.8560
Total	**0.1316**	**1.3140**	**0.8842**	**2.6500e-003**	**0.0000**	**0.0506**	**0.0506**	**0.0000**	**0.0466**	**0.0466**	**0.0000**	**232.9723**	**232.9723**	**0.0754**	**0.0000**	**234.8560**

3.13 11 AC Interference Mitigation System Installation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1400e-003	8.4000e-004	8.2400e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.6000e-004	2.0000e-005	6.7000e-004	0.0000	2.2326	2.2326	7.0000e-005	0.0000	2.2343
Total	**1.1400e-003**	**9.8000e-004**	**8.2700e-003**	**2.0000e-005**	**2.4800e-003**	**2.0000e-005**	**2.5000e-003**	**6.6000e-004**	**2.0000e-005**	**6.7000e-004**	**0.0000**	**2.2712**	**2.2712**	**7.0000e-005**	**0.0000**	**2.2729**

3.14 12.1 Micropile Foundation Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0526	0.4940	0.3298	8.4000e-004		0.0228	0.0228		0.0215	0.0215	0.0000	73.8084	73.8084	0.0197	0.0000	74.3009
Total	**0.0526**	**0.4940**	**0.3298**	**8.4000e-004**	**0.0000**	**0.0228**	**0.0228**	**0.0000**	**0.0215**	**0.0215**	**0.0000**	**73.8084**	**73.8084**	**0.0197**	**0.0000**	**74.3009**

3.14 12.1 Micropile Foundation Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4400e-003	1.0600e-003	0.0104	3.0000e-005	3.1300e-003	2.0000e-005	3.1500e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.8270	2.8270	8.0000e-005	0.0000	2.8291
Total	**1.4400e-003**	**1.2000e-003**	**0.0105**	**3.0000e-005**	**3.1400e-003**	**2.0000e-005**	**3.1600e-003**	**8.3000e-004**	**2.0000e-005**	**8.5000e-004**	**0.0000**	**2.8656**	**2.8656**	**8.0000e-005**	**0.0000**	**2.8678**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0526	0.4940	0.3298	8.4000e-004		0.0228	0.0228		0.0215	0.0215	0.0000	73.8083	73.8083	0.0197	0.0000	74.3008
Total	**0.0526**	**0.4940**	**0.3298**	**8.4000e-004**	**0.0000**	**0.0228**	**0.0228**	**0.0000**	**0.0215**	**0.0215**	**0.0000**	**73.8083**	**73.8083**	**0.0197**	**0.0000**	**74.3008**

3.14 12.1 Micropile Foundation Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4400e-003	1.0600e-003	0.0104	3.0000e-005	3.1300e-003	2.0000e-005	3.1500e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.8270	2.8270	8.0000e-005	0.0000	2.8291
Total	**1.4400e-003**	**1.2000e-003**	**0.0105**	**3.0000e-005**	**3.1400e-003**	**2.0000e-005**	**3.1600e-003**	**8.3000e-004**	**2.0000e-005**	**8.5000e-004**	**0.0000**	**2.8656**	**2.8656**	**8.0000e-005**	**0.0000**	**2.8678**

3.15 04.2 Auger Holes, Direct Bury Poles - Seg 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0466	0.4388	0.2953	8.1000e-004		0.0188	0.0188		0.0174	0.0174	0.0000	71.3681	71.3681	0.0218	0.0000	71.9127
Total	**0.0466**	**0.4388**	**0.2953**	**8.1000e-004**	**2.0000e-005**	**0.0188**	**0.0188**	**0.0000**	**0.0174**	**0.0174**	**0.0000**	**71.3681**	**71.3681**	**0.0218**	**0.0000**	**71.9127**

3.15 04.2 Auger Holes, Direct Bury Poles - Seg 2 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	4.1000e-004	0.0000	4.1000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1400e-003	8.5000e-004	8.3000e-003	2.0000e-005	0.1367	2.0000e-005	0.1367	0.0140	2.0000e-005	0.0140	0.0000	2.2471	2.2471	7.0000e-005	0.0000	2.2488
Total	**1.1400e-003**	**9.9000e-004**	**8.3300e-003**	**2.0000e-005**	**0.1371**	**2.0000e-005**	**0.1371**	**0.0141**	**2.0000e-005**	**0.0141**	**0.0000**	**2.2857**	**2.2857**	**7.0000e-005**	**0.0000**	**2.2875**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0466	0.4388	0.2953	8.1000e-004		0.0188	0.0188		0.0174	0.0174	0.0000	71.3680	71.3680	0.0218	0.0000	71.9126
Total	**0.0466**	**0.4388**	**0.2953**	**8.1000e-004**	**2.0000e-005**	**0.0188**	**0.0188**	**0.0000**	**0.0174**	**0.0174**	**0.0000**	**71.3680**	**71.3680**	**0.0218**	**0.0000**	**71.9126**

3.15 04.2 Auger Holes, Direct Bury Poles - Seg 2 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	4.1000e-004	0.0000	4.1000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1400e-003	8.5000e-004	8.3000e-003	2.0000e-005	0.1367	2.0000e-005	0.1367	0.0140	2.0000e-005	0.0140	0.0000	2.2471	2.2471	7.0000e-005	0.0000	2.2488
Total	**1.1400e-003**	**9.9000e-004**	**8.3300e-003**	**2.0000e-005**	**0.1371**	**2.0000e-005**	**0.1371**	**0.0141**	**2.0000e-005**	**0.0141**	**0.0000**	**2.2857**	**2.2857**	**7.0000e-005**	**0.0000**	**2.2875**

3.16 06.1 Structure Installation and Assembly - Seg 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0482	0.4395	0.2439	8.5000e-004		0.0171	0.0171		0.0158	0.0158	0.0000	74.7707	74.7707	0.0242	0.0000	75.3753
Total	**0.0482**	**0.4395**	**0.2439**	**8.5000e-004**	**1.7000e-004**	**0.0171**	**0.0173**	**2.0000e-005**	**0.0158**	**0.0158**	**0.0000**	**74.7707**	**74.7707**	**0.0242**	**0.0000**	**75.3753**

3.16 06.1 Structure Installation and Assembly - Seg 1 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1400e-003	8.5000e-004	8.3000e-003	2.0000e-005	0.1367	2.0000e-005	0.1367	0.0140	2.0000e-005	0.0140	0.0000	2.2471	2.2471	7.0000e-005	0.0000	2.2488
Total	**1.1400e-003**	**8.5000e-004**	**8.3000e-003**	**2.0000e-005**	**0.1367**	**2.0000e-005**	**0.1367**	**0.0140**	**2.0000e-005**	**0.0140**	**0.0000**	**2.2471**	**2.2471**	**7.0000e-005**	**0.0000**	**2.2488**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0482	0.4395	0.2439	8.5000e-004		0.0171	0.0171		0.0158	0.0158	0.0000	74.7707	74.7707	0.0242	0.0000	75.3752
Total	**0.0482**	**0.4395**	**0.2439**	**8.5000e-004**	**1.7000e-004**	**0.0171**	**0.0173**	**2.0000e-005**	**0.0158**	**0.0158**	**0.0000**	**74.7707**	**74.7707**	**0.0242**	**0.0000**	**75.3752**

3.16 06.1 Structure Installation and Assembly - Seg 1 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1400e-003	8.5000e-004	8.3000e-003	2.0000e-005	0.1367	2.0000e-005	0.1367	0.0140	2.0000e-005	0.0140	0.0000	2.2471	2.2471	7.0000e-005	0.0000	2.2488
Total	**1.1400e-003**	**8.5000e-004**	**8.3000e-003**	**2.0000e-005**	**0.1367**	**2.0000e-005**	**0.1367**	**0.0140**	**2.0000e-005**	**0.0140**	**0.0000**	**2.2471**	**2.2471**	**7.0000e-005**	**0.0000**	**2.2488**

3.17 10.1 Substation Work (San Marcos) below grade - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.7700e-003	0.0645	0.0308	1.1000e-004		2.4100e-003	2.4100e-003		2.2100e-003	2.2100e-003	0.0000	9.5152	9.5152	3.0800e-003	0.0000	9.5921
Total	**5.7700e-003**	**0.0645**	**0.0308**	**1.1000e-004**	**0.0000**	**2.4100e-003**	**2.4100e-003**	**0.0000**	**2.2100e-003**	**2.2100e-003**	**0.0000**	**9.5152**	**9.5152**	**3.0800e-003**	**0.0000**	**9.5921**

3.17 10.1 Substation Work (San Marcos) below grade - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	6.6000e-004	0.0000	6.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	1.6000e-004	1.6100e-003	0.0000	0.0429	0.0000	0.0429	4.3600e-003	0.0000	4.3600e-003	0.0000	0.4349	0.4349	1.0000e-005	0.0000	0.4353
Total	**2.2000e-004**	**3.0000e-004**	**1.6400e-003**	**0.0000**	**0.0436**	**0.0000**	**0.0436**	**4.4300e-003**	**0.0000**	**4.4300e-003**	**0.0000**	**0.4735**	**0.4735**	**1.0000e-005**	**0.0000**	**0.4739**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.7700e-003	0.0645	0.0308	1.1000e-004		2.4100e-003	2.4100e-003		2.2100e-003	2.2100e-003	0.0000	9.5152	9.5152	3.0800e-003	0.0000	9.5921
Total	**5.7700e-003**	**0.0645**	**0.0308**	**1.1000e-004**	**0.0000**	**2.4100e-003**	**2.4100e-003**	**0.0000**	**2.2100e-003**	**2.2100e-003**	**0.0000**	**9.5152**	**9.5152**	**3.0800e-003**	**0.0000**	**9.5921**

3.17 10.1 Substation Work (San Marcos) below grade - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	6.6000e-004	0.0000	6.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	1.6000e-004	1.6100e-003	0.0000	0.0429	0.0000	0.0429	4.3600e-003	0.0000	4.3600e-003	0.0000	0.4349	0.4349	1.0000e-005	0.0000	0.4353
Total	**2.2000e-004**	**3.0000e-004**	**1.6400e-003**	**0.0000**	**0.0436**	**0.0000**	**0.0436**	**4.4300e-003**	**0.0000**	**4.4300e-003**	**0.0000**	**0.4735**	**0.4735**	**1.0000e-005**	**0.0000**	**0.4739**

3.18 08 Trenching for Installation of Undergound Cables - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0801	0.7953	0.4712	1.3300e-003		0.0355	0.0355		0.0327	0.0327	0.0000	116.6081	116.6081	0.0377	0.0000	117.5509
Total	**0.0801**	**0.7953**	**0.4712**	**1.3300e-003**	**5.0000e-005**	**0.0355**	**0.0356**	**1.0000e-005**	**0.0327**	**0.0327**	**0.0000**	**116.6081**	**116.6081**	**0.0377**	**0.0000**	**117.5509**

3.18 08 Trenching for Installation of Undergound Cables - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8100e-003	1.3400e-003	0.0131	4.0000e-005	0.2161	3.0000e-005	0.2161	0.0222	3.0000e-005	0.0222	0.0000	3.5519	3.5519	1.1000e-004	0.0000	3.5546
Total	**1.8100e-003**	**1.3400e-003**	**0.0131**	**4.0000e-005**	**0.2161**	**3.0000e-005**	**0.2161**	**0.0222**	**3.0000e-005**	**0.0222**	**0.0000**	**3.5519**	**3.5519**	**1.1000e-004**	**0.0000**	**3.5546**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0801	0.7953	0.4712	1.3300e-003		0.0355	0.0355		0.0327	0.0327	0.0000	116.6079	116.6079	0.0377	0.0000	117.5508
Total	**0.0801**	**0.7953**	**0.4712**	**1.3300e-003**	**5.0000e-005**	**0.0355**	**0.0356**	**1.0000e-005**	**0.0327**	**0.0327**	**0.0000**	**116.6079**	**116.6079**	**0.0377**	**0.0000**	**117.5508**

3.18 08 Trenching for Installation of Undergound Cables - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8100e-003	1.3400e-003	0.0131	4.0000e-005	0.2161	3.0000e-005	0.2161	0.0222	3.0000e-005	0.0222	0.0000	3.5519	3.5519	1.1000e-004	0.0000	3.5546
Total	**1.8100e-003**	**1.3400e-003**	**0.0131**	**4.0000e-005**	**0.2161**	**3.0000e-005**	**0.2161**	**0.0222**	**3.0000e-005**	**0.0222**	**0.0000**	**3.5519**	**3.5519**	**1.1000e-004**	**0.0000**	**3.5546**

3.19 10.2 Substation Work (San Marcos) above grade - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.6000e-003	0.0795	0.0437	1.5000e-004		3.0700e-003	3.0700e-003		2.8300e-003	2.8300e-003	0.0000	13.5068	13.5068	4.3700e-003	0.0000	13.6161
Total	**8.6000e-003**	**0.0795**	**0.0437**	**1.5000e-004**		**3.0700e-003**	**3.0700e-003**		**2.8300e-003**	**2.8300e-003**	**0.0000**	**13.5068**	**13.5068**	**4.3700e-003**	**0.0000**	**13.6161**

3.19 10.2 Substation Work (San Marcos) above grade - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	6.6000e-004	0.0000	6.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.4000e-004	7.0000e-004	6.8200e-003	2.0000e-005	0.1824	1.0000e-005	0.1824	0.0185	1.0000e-005	0.0185	0.0000	1.8484	1.8484	6.0000e-005	0.0000	1.8498
Total	**9.4000e-004**	**8.4000e-004**	**6.8500e-003**	**2.0000e-005**	**0.1831**	**1.0000e-005**	**0.1831**	**0.0186**	**1.0000e-005**	**0.0186**	**0.0000**	**1.8870**	**1.8870**	**6.0000e-005**	**0.0000**	**1.8885**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.6000e-003	0.0795	0.0437	1.5000e-004		3.0700e-003	3.0700e-003		2.8300e-003	2.8300e-003	0.0000	13.5068	13.5068	4.3700e-003	0.0000	13.6160
Total	**8.6000e-003**	**0.0795**	**0.0437**	**1.5000e-004**		**3.0700e-003**	**3.0700e-003**		**2.8300e-003**	**2.8300e-003**	**0.0000**	**13.5068**	**13.5068**	**4.3700e-003**	**0.0000**	**13.6160**

3.19 10.2 Substation Work (San Marcos) above grade - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	6.6000e-004	0.0000	6.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.4000e-004	7.0000e-004	6.8200e-003	2.0000e-005	0.1824	1.0000e-005	0.1824	0.0185	1.0000e-005	0.0185	0.0000	1.8484	1.8484	6.0000e-005	0.0000	1.8498
Total	**9.4000e-004**	**8.4000e-004**	**6.8500e-003**	**2.0000e-005**	**0.1831**	**1.0000e-005**	**0.1831**	**0.0186**	**1.0000e-005**	**0.0186**	**0.0000**	**1.8870**	**1.8870**	**6.0000e-005**	**0.0000**	**1.8885**

3.20 05.2 Foundation Construction (Pier) - Seg 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2900e-003	0.0000	1.2900e-003	1.5000e-004	0.0000	1.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0498	0.4507	0.3916	8.2000e-004		0.0220	0.0220		0.0207	0.0207	0.0000	71.7454	71.7454	0.0194	0.0000	72.2307
Total	**0.0498**	**0.4507**	**0.3916**	**8.2000e-004**	**1.2900e-003**	**0.0220**	**0.0233**	**1.5000e-004**	**0.0207**	**0.0209**	**0.0000**	**71.7454**	**71.7454**	**0.0194**	**0.0000**	**72.2307**

3.20 05.2 Foundation Construction (Pier) - Seg 2 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1200e-003	0.0400	9.1500e-003	1.1000e-004	0.1150	1.3000e-004	0.1152	0.0119	1.2000e-004	0.0120	0.0000	10.8361	10.8361	9.8000e-004	0.0000	10.8604
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4200e-003	1.0500e-003	0.0103	3.0000e-005	0.1698	2.0000e-005	0.1698	0.0174	2.0000e-005	0.0174	0.0000	2.7908	2.7908	8.0000e-005	0.0000	2.7929
Total	**2.5400e-003**	**0.0410**	**0.0195**	**1.4000e-004**	**0.2848**	**1.5000e-004**	**0.2849**	**0.0293**	**1.4000e-004**	**0.0294**	**0.0000**	**13.6268**	**13.6268**	**1.0600e-003**	**0.0000**	**13.6533**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2900e-003	0.0000	1.2900e-003	1.5000e-004	0.0000	1.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0498	0.4507	0.3916	8.2000e-004		0.0220	0.0220		0.0207	0.0207	0.0000	71.7453	71.7453	0.0194	0.0000	72.2306
Total	**0.0498**	**0.4507**	**0.3916**	**8.2000e-004**	**1.2900e-003**	**0.0220**	**0.0233**	**1.5000e-004**	**0.0207**	**0.0209**	**0.0000**	**71.7453**	**71.7453**	**0.0194**	**0.0000**	**72.2306**

3.20 05.2 Foundation Construction (Pier) - Seg 2 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1200e-003	0.0400	9.1500e-003	1.1000e-004	0.1150	1.3000e-004	0.1152	0.0119	1.2000e-004	0.0120	0.0000	10.8361	10.8361	9.8000e-004	0.0000	10.8604
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4200e-003	1.0500e-003	0.0103	3.0000e-005	0.1698	2.0000e-005	0.1698	0.0174	2.0000e-005	0.0174	0.0000	2.7908	2.7908	8.0000e-005	0.0000	2.7929
Total	**2.5400e-003**	**0.0410**	**0.0195**	**1.4000e-004**	**0.2848**	**1.5000e-004**	**0.2849**	**0.0293**	**1.4000e-004**	**0.0294**	**0.0000**	**13.6268**	**13.6268**	**1.0600e-003**	**0.0000**	**13.6533**

3.21 04.3 Auger Holes, Direct Bury Poles - Seg 3 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0000e-003	0.0283	0.0191	5.0000e-005		1.2100e-003	1.2100e-003		1.1200e-003	1.1200e-003	0.0000	4.6044	4.6044	1.4100e-003	0.0000	4.6395
Total	**3.0000e-003**	**0.0283**	**0.0191**	**5.0000e-005**	**1.0000e-005**	**1.2100e-003**	**1.2200e-003**	**0.0000**	**1.1200e-003**	**1.1200e-003**	**0.0000**	**4.6044**	**4.6044**	**1.4100e-003**	**0.0000**	**4.6395**

3.21 04.3 Auger Holes, Direct Bury Poles - Seg 3 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	4.1000e-004	0.0000	4.1000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	5.4000e-004	0.0000	8.8200e-003	0.0000	8.8200e-003	9.0000e-004	0.0000	9.1000e-004	0.0000	0.1450	0.1450	0.0000	0.0000	0.1451
Total	**7.0000e-005**	**1.9000e-004**	**5.7000e-004**	**0.0000**	**9.2300e-003**	**0.0000**	**9.2300e-003**	**9.4000e-004**	**0.0000**	**9.5000e-004**	**0.0000**	**0.1835**	**0.1835**	**0.0000**	**0.0000**	**0.1837**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0000e-003	0.0283	0.0191	5.0000e-005		1.2100e-003	1.2100e-003		1.1200e-003	1.1200e-003	0.0000	4.6044	4.6044	1.4100e-003	0.0000	4.6395
Total	**3.0000e-003**	**0.0283**	**0.0191**	**5.0000e-005**	**1.0000e-005**	**1.2100e-003**	**1.2200e-003**	**0.0000**	**1.1200e-003**	**1.1200e-003**	**0.0000**	**4.6044**	**4.6044**	**1.4100e-003**	**0.0000**	**4.6395**

3.21 04.3 Auger Holes, Direct Bury Poles - Seg 3 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	4.1000e-004	0.0000	4.1000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	5.4000e-004	0.0000	8.8200e-003	0.0000	8.8200e-003	9.0000e-004	0.0000	9.1000e-004	0.0000	0.1450	0.1450	0.0000	0.0000	0.1451
Total	**7.0000e-005**	**1.9000e-004**	**5.7000e-004**	**0.0000**	**9.2300e-003**	**0.0000**	**9.2300e-003**	**9.4000e-004**	**0.0000**	**9.5000e-004**	**0.0000**	**0.1835**	**0.1835**	**0.0000**	**0.0000**	**0.1837**

3.22 06.2 Structure Installation and Assembly - Seg 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.4000e-004	0.0000	3.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1057	0.9641	0.5349	1.8700e-003		0.0376	0.0376		0.0346	0.0346	0.0000	164.0132	164.0132	0.0531	0.0000	165.3394
Total	**0.1057**	**0.9641**	**0.5349**	**1.8700e-003**	**3.4000e-004**	**0.0376**	**0.0379**	**4.0000e-005**	**0.0346**	**0.0346**	**0.0000**	**164.0132**	**164.0132**	**0.0531**	**0.0000**	**165.3394**

3.22 06.2 Structure Installation and Assembly - Seg 2 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	4.1000e-004	0.0000	4.1000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5100e-003	1.8600e-003	0.0182	5.0000e-005	0.2998	4.0000e-005	0.2999	0.0308	4.0000e-005	0.0308	0.0000	4.9292	4.9292	1.5000e-004	0.0000	4.9329
Total	**2.5100e-003**	**2.0000e-003**	**0.0182**	**5.0000e-005**	**0.3002**	**4.0000e-005**	**0.3003**	**0.0308**	**4.0000e-005**	**0.0308**	**0.0000**	**4.9677**	**4.9677**	**1.5000e-004**	**0.0000**	**4.9715**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.4000e-004	0.0000	3.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1057	0.9641	0.5349	1.8700e-003		0.0376	0.0376		0.0346	0.0346	0.0000	164.0131	164.0131	0.0531	0.0000	165.3392
Total	**0.1057**	**0.9641**	**0.5349**	**1.8700e-003**	**3.4000e-004**	**0.0376**	**0.0379**	**4.0000e-005**	**0.0346**	**0.0346**	**0.0000**	**164.0131**	**164.0131**	**0.0531**	**0.0000**	**165.3392**

3.22 06.2 Structure Installation and Assembly - Seg 2 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	4.1000e-004	0.0000	4.1000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5100e-003	1.8600e-003	0.0182	5.0000e-005	0.2998	4.0000e-005	0.2999	0.0308	4.0000e-005	0.0308	0.0000	4.9292	4.9292	1.5000e-004	0.0000	4.9329
Total	**2.5100e-003**	**2.0000e-003**	**0.0182**	**5.0000e-005**	**0.3002**	**4.0000e-005**	**0.3003**	**0.0308**	**4.0000e-005**	**0.0308**	**0.0000**	**4.9677**	**4.9677**	**1.5000e-004**	**0.0000**	**4.9715**

3.23 07.1 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.3000e-004	0.0000	1.3000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0726	0.7163	0.4175	1.3600e-003		0.0277	0.0277		0.0255	0.0255	0.0000	119.4239	119.4239	0.0386	0.0000	120.3895
Total	**0.0726**	**0.7163**	**0.4175**	**1.3600e-003**	**1.3000e-004**	**0.0277**	**0.0279**	**1.0000e-005**	**0.0255**	**0.0255**	**0.0000**	**119.4239**	**119.4239**	**0.0386**	**0.0000**	**120.3895**

3.23 07.1 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 1 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	4.1000e-004	0.0000	4.1000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0300e-003	1.5000e-003	0.0147	4.0000e-005	0.2425	3.0000e-005	0.2425	0.0249	3.0000e-005	0.0249	0.0000	3.9868	3.9868	1.2000e-004	0.0000	3.9898
Total	**2.0300e-003**	**1.6400e-003**	**0.0148**	**4.0000e-005**	**0.2429**	**3.0000e-005**	**0.2429**	**0.0249**	**3.0000e-005**	**0.0249**	**0.0000**	**4.0254**	**4.0254**	**1.2000e-004**	**0.0000**	**4.0285**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.3000e-004	0.0000	1.3000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0726	0.7163	0.4175	1.3600e-003		0.0277	0.0277		0.0255	0.0255	0.0000	119.4237	119.4237	0.0386	0.0000	120.3893
Total	**0.0726**	**0.7163**	**0.4175**	**1.3600e-003**	**1.3000e-004**	**0.0277**	**0.0279**	**1.0000e-005**	**0.0255**	**0.0255**	**0.0000**	**119.4237**	**119.4237**	**0.0386**	**0.0000**	**120.3893**

3.23 07.1 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 1 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	4.1000e-004	0.0000	4.1000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0300e-003	1.5000e-003	0.0147	4.0000e-005	0.2425	3.0000e-005	0.2425	0.0249	3.0000e-005	0.0249	0.0000	3.9868	3.9868	1.2000e-004	0.0000	3.9898
Total	**2.0300e-003**	**1.6400e-003**	**0.0148**	**4.0000e-005**	**0.2429**	**3.0000e-005**	**0.2429**	**0.0249**	**3.0000e-005**	**0.0249**	**0.0000**	**4.0254**	**4.0254**	**1.2000e-004**	**0.0000**	**4.0285**

3.24 12.2 Micropile Foundation Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1012	0.9501	0.6343	1.6200e-003		0.0438	0.0438		0.0413	0.0413	0.0000	141.9392	141.9392	0.0379	0.0000	142.8864
Total	**0.1012**	**0.9501**	**0.6343**	**1.6200e-003**	**0.0000**	**0.0438**	**0.0438**	**0.0000**	**0.0413**	**0.0413**	**0.0000**	**141.9392**	**141.9392**	**0.0379**	**0.0000**	**142.8864**

3.24 12.2 Micropile Foundation Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7600e-003	2.0500e-003	0.0201	6.0000e-005	6.0100e-003	4.0000e-005	6.0600e-003	1.6000e-003	4.0000e-005	1.6400e-003	0.0000	5.4366	5.4366	1.6000e-004	0.0000	5.4407
Total	**2.7600e-003**	**2.1900e-003**	**0.0201**	**6.0000e-005**	**6.0200e-003**	**4.0000e-005**	**6.0700e-003**	**1.6000e-003**	**4.0000e-005**	**1.6400e-003**	**0.0000**	**5.4751**	**5.4751**	**1.6000e-004**	**0.0000**	**5.4793**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1012	0.9501	0.6343	1.6200e-003		0.0438	0.0438		0.0413	0.0413	0.0000	141.9390	141.9390	0.0379	0.0000	142.8862
Total	**0.1012**	**0.9501**	**0.6343**	**1.6200e-003**	**0.0000**	**0.0438**	**0.0438**	**0.0000**	**0.0413**	**0.0413**	**0.0000**	**141.9390**	**141.9390**	**0.0379**	**0.0000**	**142.8862**

3.24 12.2 Micropile Foundation Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7600e-003	2.0500e-003	0.0201	6.0000e-005	6.0100e-003	4.0000e-005	6.0600e-003	1.6000e-003	4.0000e-005	1.6400e-003	0.0000	5.4366	5.4366	1.6000e-004	0.0000	5.4407
Total	**2.7600e-003**	**2.1900e-003**	**0.0201**	**6.0000e-005**	**6.0200e-003**	**4.0000e-005**	**6.0700e-003**	**1.6000e-003**	**4.0000e-005**	**1.6400e-003**	**0.0000**	**5.4751**	**5.4751**	**1.6000e-004**	**0.0000**	**5.4793**

3.25 12.3 Micropile Foundation Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0148	0.1393	0.0930	2.4000e-004		6.4300e-003	6.4300e-003		6.0500e-003	6.0500e-003	0.0000	20.8177	20.8177	5.5600e-003	0.0000	20.9567
Total	**0.0148**	**0.1393**	**0.0930**	**2.4000e-004**	**0.0000**	**6.4300e-003**	**6.4300e-003**	**0.0000**	**6.0500e-003**	**6.0500e-003**	**0.0000**	**20.8177**	**20.8177**	**5.5600e-003**	**0.0000**	**20.9567**

3.25 12.3 Micropile Foundation Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	3.0000e-004	2.9400e-003	1.0000e-005	8.8000e-004	1.0000e-005	8.9000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7974	0.7974	2.0000e-005	0.0000	0.7980
Total	**4.1000e-004**	**4.4000e-004**	**2.9700e-003**	**1.0000e-005**	**8.9000e-004**	**1.0000e-005**	**9.0000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.8359**	**0.8359**	**2.0000e-005**	**0.0000**	**0.8366**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0148	0.1393	0.0930	2.4000e-004		6.4300e-003	6.4300e-003		6.0500e-003	6.0500e-003	0.0000	20.8177	20.8177	5.5600e-003	0.0000	20.9567
Total	**0.0148**	**0.1393**	**0.0930**	**2.4000e-004**	**0.0000**	**6.4300e-003**	**6.4300e-003**	**0.0000**	**6.0500e-003**	**6.0500e-003**	**0.0000**	**20.8177**	**20.8177**	**5.5600e-003**	**0.0000**	**20.9567**

3.25 12.3 Micropile Foundation Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	3.0000e-004	2.9400e-003	1.0000e-005	8.8000e-004	1.0000e-005	8.9000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7974	0.7974	2.0000e-005	0.0000	0.7980
Total	**4.1000e-004**	**4.4000e-004**	**2.9700e-003**	**1.0000e-005**	**8.9000e-004**	**1.0000e-005**	**9.0000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.8359**	**0.8359**	**2.0000e-005**	**0.0000**	**0.8366**

3.26 05.3 Foundation Construction (Pier) - Seg 3 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.5000e-004	0.0000	3.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1100e-003	0.0644	0.0559	1.2000e-004		3.1500e-003	3.1500e-003		2.9600e-003	2.9600e-003	0.0000	10.2493	10.2493	2.7700e-003	0.0000	10.3187
Total	**7.1100e-003**	**0.0644**	**0.0559**	**1.2000e-004**	**3.5000e-004**	**3.1500e-003**	**3.5000e-003**	**4.0000e-005**	**2.9600e-003**	**3.0000e-003**	**0.0000**	**10.2493**	**10.2493**	**2.7700e-003**	**0.0000**	**10.3187**

3.26 05.3 Foundation Construction (Pier) - Seg 3 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.4000e-004	8.6800e-003	1.9900e-003	2.0000e-005	0.0250	3.0000e-005	0.0250	2.5800e-003	3.0000e-005	2.6000e-003	0.0000	2.3523	2.3523	2.1000e-004	0.0000	2.3576
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.5000e-004	1.4700e-003	0.0000	0.0243	0.0000	0.0243	2.4900e-003	0.0000	2.4900e-003	0.0000	0.3987	0.3987	1.0000e-005	0.0000	0.3990
Total	**4.4000e-004**	**8.8300e-003**	**3.4600e-003**	**2.0000e-005**	**0.0492**	**3.0000e-005**	**0.0493**	**5.0700e-003**	**3.0000e-005**	**5.0900e-003**	**0.0000**	**2.7510**	**2.7510**	**2.2000e-004**	**0.0000**	**2.7566**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.5000e-004	0.0000	3.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1100e-003	0.0644	0.0559	1.2000e-004		3.1500e-003	3.1500e-003		2.9600e-003	2.9600e-003	0.0000	10.2493	10.2493	2.7700e-003	0.0000	10.3187
Total	**7.1100e-003**	**0.0644**	**0.0559**	**1.2000e-004**	**3.5000e-004**	**3.1500e-003**	**3.5000e-003**	**4.0000e-005**	**2.9600e-003**	**3.0000e-003**	**0.0000**	**10.2493**	**10.2493**	**2.7700e-003**	**0.0000**	**10.3187**

3.26 05.3 Foundation Construction (Pier) - Seg 3 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.4000e-004	8.6800e-003	1.9900e-003	2.0000e-005	0.0250	3.0000e-005	0.0250	2.5800e-003	3.0000e-005	2.6000e-003	0.0000	2.3523	2.3523	2.1000e-004	0.0000	2.3576
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.5000e-004	1.4700e-003	0.0000	0.0243	0.0000	0.0243	2.4900e-003	0.0000	2.4900e-003	0.0000	0.3987	0.3987	1.0000e-005	0.0000	0.3990
Total	**4.4000e-004**	**8.8300e-003**	**3.4600e-003**	**2.0000e-005**	**0.0492**	**3.0000e-005**	**0.0493**	**5.0700e-003**	**3.0000e-005**	**5.0900e-003**	**0.0000**	**2.7510**	**2.7510**	**2.2000e-004**	**0.0000**	**2.7566**

3.27 06.3 Structure Installation and Assembly - Seg 3 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0280	0.2552	0.1416	4.9000e-004		9.9400e-003	9.9400e-003		9.1500e-003	9.1500e-003	0.0000	43.4153	43.4153	0.0140	0.0000	43.7663
Total	**0.0280**	**0.2552**	**0.1416**	**4.9000e-004**	**1.7000e-004**	**9.9400e-003**	**0.0101**	**2.0000e-005**	**9.1500e-003**	**9.1700e-003**	**0.0000**	**43.4153**	**43.4153**	**0.0140**	**0.0000**	**43.7663**

3.27 06.3 Structure Installation and Assembly - Seg 3 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	4.1000e-004	0.0000	4.1000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-004	4.9000e-004	4.8200e-003	1.0000e-005	0.0794	1.0000e-005	0.0794	8.1400e-003	1.0000e-005	8.1500e-003	0.0000	1.3048	1.3048	4.0000e-005	0.0000	1.3058
Total	**6.6000e-004**	**6.3000e-004**	**4.8500e-003**	**1.0000e-005**	**0.0798**	**1.0000e-005**	**0.0798**	**8.1800e-003**	**1.0000e-005**	**8.1900e-003**	**0.0000**	**1.3433**	**1.3433**	**4.0000e-005**	**0.0000**	**1.3444**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7000e-004	0.0000	1.7000e-004	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0280	0.2552	0.1416	4.9000e-004		9.9400e-003	9.9400e-003		9.1500e-003	9.1500e-003	0.0000	43.4152	43.4152	0.0140	0.0000	43.7663
Total	**0.0280**	**0.2552**	**0.1416**	**4.9000e-004**	**1.7000e-004**	**9.9400e-003**	**0.0101**	**2.0000e-005**	**9.1500e-003**	**9.1700e-003**	**0.0000**	**43.4152**	**43.4152**	**0.0140**	**0.0000**	**43.7663**

3.27 06.3 Structure Installation and Assembly - Seg 3 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	4.1000e-004	0.0000	4.1000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-004	4.9000e-004	4.8200e-003	1.0000e-005	0.0794	1.0000e-005	0.0794	8.1400e-003	1.0000e-005	8.1500e-003	0.0000	1.3048	1.3048	4.0000e-005	0.0000	1.3058
Total	**6.6000e-004**	**6.3000e-004**	**4.8500e-003**	**1.0000e-005**	**0.0798**	**1.0000e-005**	**0.0798**	**8.1800e-003**	**1.0000e-005**	**8.1900e-003**	**0.0000**	**1.3433**	**1.3433**	**4.0000e-005**	**0.0000**	**1.3444**

3.28 10.3 Substation Work (Escondido) below grade - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.7700e-003	0.0645	0.0308	1.1000e-004		2.4100e-003	2.4100e-003		2.2100e-003	2.2100e-003	0.0000	9.5152	9.5152	3.0800e-003	0.0000	9.5921
Total	**5.7700e-003**	**0.0645**	**0.0308**	**1.1000e-004**	**0.0000**	**2.4100e-003**	**2.4100e-003**	**0.0000**	**2.2100e-003**	**2.2100e-003**	**0.0000**	**9.5152**	**9.5152**	**3.0800e-003**	**0.0000**	**9.5921**

3.28 10.3 Substation Work (Escondido) below grade - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	6.6000e-004	0.0000	6.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	1.6000e-004	1.6100e-003	0.0000	0.0429	0.0000	0.0429	4.3600e-003	0.0000	4.3600e-003	0.0000	0.4349	0.4349	1.0000e-005	0.0000	0.4353
Total	**2.2000e-004**	**3.0000e-004**	**1.6400e-003**	**0.0000**	**0.0436**	**0.0000**	**0.0436**	**4.4300e-003**	**0.0000**	**4.4300e-003**	**0.0000**	**0.4735**	**0.4735**	**1.0000e-005**	**0.0000**	**0.4739**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.7700e-003	0.0645	0.0308	1.1000e-004		2.4100e-003	2.4100e-003		2.2100e-003	2.2100e-003	0.0000	9.5152	9.5152	3.0800e-003	0.0000	9.5921
Total	**5.7700e-003**	**0.0645**	**0.0308**	**1.1000e-004**	**0.0000**	**2.4100e-003**	**2.4100e-003**	**0.0000**	**2.2100e-003**	**2.2100e-003**	**0.0000**	**9.5152**	**9.5152**	**3.0800e-003**	**0.0000**	**9.5921**

3.28 10.3 Substation Work (Escondido) below grade - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	6.6000e-004	0.0000	6.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	1.6000e-004	1.6100e-003	0.0000	0.0429	0.0000	0.0429	4.3600e-003	0.0000	4.3600e-003	0.0000	0.4349	0.4349	1.0000e-005	0.0000	0.4353
Total	**2.2000e-004**	**3.0000e-004**	**1.6400e-003**	**0.0000**	**0.0436**	**0.0000**	**0.0436**	**4.4300e-003**	**0.0000**	**4.4300e-003**	**0.0000**	**0.4735**	**0.4735**	**1.0000e-005**	**0.0000**	**0.4739**

3.29 10.4 Substation Work (Escondido) above grade - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.6300e-003	0.0788	0.0437	1.5000e-004		3.0700e-003	3.0700e-003		2.8200e-003	2.8200e-003	0.0000	13.3998	13.3998	4.3300e-003	0.0000	13.5081
Total	**8.6300e-003**	**0.0788**	**0.0437**	**1.5000e-004**		**3.0700e-003**	**3.0700e-003**		**2.8200e-003**	**2.8200e-003**	**0.0000**	**13.3998**	**13.3998**	**4.3300e-003**	**0.0000**	**13.5081**

3.29 10.4 Substation Work (Escondido) above grade - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	6.6000e-004	0.0000	6.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.4000e-004	7.0000e-004	6.8200e-003	2.0000e-005	0.1824	1.0000e-005	0.1824	0.0185	1.0000e-005	0.0185	0.0000	1.8484	1.8484	6.0000e-005	0.0000	1.8498
Total	**9.4000e-004**	**8.4000e-004**	**6.8500e-003**	**2.0000e-005**	**0.1831**	**1.0000e-005**	**0.1831**	**0.0186**	**1.0000e-005**	**0.0186**	**0.0000**	**1.8870**	**1.8870**	**6.0000e-005**	**0.0000**	**1.8885**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.6300e-003	0.0788	0.0437	1.5000e-004		3.0700e-003	3.0700e-003		2.8200e-003	2.8200e-003	0.0000	13.3998	13.3998	4.3300e-003	0.0000	13.5081
Total	**8.6300e-003**	**0.0788**	**0.0437**	**1.5000e-004**		**3.0700e-003**	**3.0700e-003**		**2.8200e-003**	**2.8200e-003**	**0.0000**	**13.3998**	**13.3998**	**4.3300e-003**	**0.0000**	**13.5081**

3.29 10.4 Substation Work (Escondido) above grade - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	6.6000e-004	0.0000	6.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.4000e-004	7.0000e-004	6.8200e-003	2.0000e-005	0.1824	1.0000e-005	0.1824	0.0185	1.0000e-005	0.0185	0.0000	1.8484	1.8484	6.0000e-005	0.0000	1.8498
Total	**9.4000e-004**	**8.4000e-004**	**6.8500e-003**	**2.0000e-005**	**0.1831**	**1.0000e-005**	**0.1831**	**0.0186**	**1.0000e-005**	**0.0186**	**0.0000**	**1.8870**	**1.8870**	**6.0000e-005**	**0.0000**	**1.8885**

3.30 07.2 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.0000e-004	0.0000	4.0000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0436	0.4298	0.2505	8.2000e-004		0.0166	0.0166		0.0153	0.0153	0.0000	71.6543	71.6543	0.0232	0.0000	72.2337
Total	**0.0436**	**0.4298**	**0.2505**	**8.2000e-004**	**4.0000e-004**	**0.0166**	**0.0170**	**4.0000e-005**	**0.0153**	**0.0154**	**0.0000**	**71.6543**	**71.6543**	**0.0232**	**0.0000**	**72.2337**

3.30 07.2 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 2 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.8000e-004	7.0000e-005	0.0000	8.2000e-004	0.0000	8.2000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.0771	0.0771	1.0000e-005	0.0000	0.0773
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	8.8300e-003	3.0000e-005	0.1455	2.0000e-005	0.1455	0.0149	2.0000e-005	0.0149	0.0000	2.3921	2.3921	7.0000e-005	0.0000	2.3939
Total	**1.2300e-003**	**1.1800e-003**	**8.9000e-003**	**3.0000e-005**	**0.1463**	**2.0000e-005**	**0.1463**	**0.0150**	**2.0000e-005**	**0.0150**	**0.0000**	**2.4692**	**2.4692**	**8.0000e-005**	**0.0000**	**2.4712**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.0000e-004	0.0000	4.0000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0436	0.4298	0.2505	8.2000e-004		0.0166	0.0166		0.0153	0.0153	0.0000	71.6542	71.6542	0.0232	0.0000	72.2336
Total	**0.0436**	**0.4298**	**0.2505**	**8.2000e-004**	**4.0000e-004**	**0.0166**	**0.0170**	**4.0000e-005**	**0.0153**	**0.0154**	**0.0000**	**71.6542**	**71.6542**	**0.0232**	**0.0000**	**72.2336**

3.30 07.2 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 2 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.8000e-004	7.0000e-005	0.0000	8.2000e-004	0.0000	8.2000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.0771	0.0771	1.0000e-005	0.0000	0.0773
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	8.8300e-003	3.0000e-005	0.1455	2.0000e-005	0.1455	0.0149	2.0000e-005	0.0149	0.0000	2.3921	2.3921	7.0000e-005	0.0000	2.3939
Total	**1.2300e-003**	**1.1800e-003**	**8.9000e-003**	**3.0000e-005**	**0.1463**	**2.0000e-005**	**0.1463**	**0.0150**	**2.0000e-005**	**0.0150**	**0.0000**	**2.4692**	**2.4692**	**8.0000e-005**	**0.0000**	**2.4712**

3.31 09.1 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0360	0.3413	0.2306	5.7000e-004		0.0155	0.0155		0.0143	0.0143	0.0000	50.2736	50.2736	0.0163	0.0000	50.6801
Total	**0.0360**	**0.3413**	**0.2306**	**5.7000e-004**	**0.0000**	**0.0155**	**0.0155**	**0.0000**	**0.0143**	**0.0143**	**0.0000**	**50.2736**	**50.2736**	**0.0163**	**0.0000**	**50.6801**

3.31 09.1 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 1 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	4.1000e-004	0.0000	4.1000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2500e-003	9.3000e-004	9.1000e-003	3.0000e-005	0.1499	2.0000e-005	0.1499	0.0154	2.0000e-005	0.0154	0.0000	2.4646	2.4646	7.0000e-005	0.0000	2.4664
Total	**1.2500e-003**	**1.0700e-003**	**9.1300e-003**	**3.0000e-005**	**0.1503**	**2.0000e-005**	**0.1503**	**0.0154**	**2.0000e-005**	**0.0154**	**0.0000**	**2.5031**	**2.5031**	**7.0000e-005**	**0.0000**	**2.5051**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0360	0.3413	0.2306	5.7000e-004		0.0155	0.0155		0.0143	0.0143	0.0000	50.2735	50.2735	0.0163	0.0000	50.6800
Total	**0.0360**	**0.3413**	**0.2306**	**5.7000e-004**	**0.0000**	**0.0155**	**0.0155**	**0.0000**	**0.0143**	**0.0143**	**0.0000**	**50.2735**	**50.2735**	**0.0163**	**0.0000**	**50.6800**

3.31 09.1 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 1 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	4.1000e-004	0.0000	4.1000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2500e-003	9.3000e-004	9.1000e-003	3.0000e-005	0.1499	2.0000e-005	0.1499	0.0154	2.0000e-005	0.0154	0.0000	2.4646	2.4646	7.0000e-005	0.0000	2.4664
Total	**1.2500e-003**	**1.0700e-003**	**9.1300e-003**	**3.0000e-005**	**0.1503**	**2.0000e-005**	**0.1503**	**0.0154**	**2.0000e-005**	**0.0154**	**0.0000**	**2.5031**	**2.5031**	**7.0000e-005**	**0.0000**	**2.5051**

3.32 07.3 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 3 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2000e-004	0.0000	1.2000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0436	0.4298	0.2505	8.2000e-004		0.0166	0.0166		0.0153	0.0153	0.0000	71.6543	71.6543	0.0232	0.0000	72.2337
Total	**0.0436**	**0.4298**	**0.2505**	**8.2000e-004**	**1.2000e-004**	**0.0166**	**0.0168**	**1.0000e-005**	**0.0153**	**0.0153**	**0.0000**	**71.6543**	**71.6543**	**0.0232**	**0.0000**	**72.2337**

3.32 07.3 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 3 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	4.1000e-004	0.0000	4.1000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	8.8300e-003	3.0000e-005	0.1455	2.0000e-005	0.1455	0.0149	2.0000e-005	0.0149	0.0000	2.3921	2.3921	7.0000e-005	0.0000	2.3939
Total	**1.2200e-003**	**1.0400e-003**	**8.8600e-003**	**3.0000e-005**	**0.1459**	**2.0000e-005**	**0.1459**	**0.0150**	**2.0000e-005**	**0.0150**	**0.0000**	**2.4307**	**2.4307**	**7.0000e-005**	**0.0000**	**2.4325**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2000e-004	0.0000	1.2000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0436	0.4298	0.2505	8.2000e-004		0.0166	0.0166		0.0153	0.0153	0.0000	71.6542	71.6542	0.0232	0.0000	72.2336
Total	**0.0436**	**0.4298**	**0.2505**	**8.2000e-004**	**1.2000e-004**	**0.0166**	**0.0168**	**1.0000e-005**	**0.0153**	**0.0153**	**0.0000**	**71.6542**	**71.6542**	**0.0232**	**0.0000**	**72.2336**

3.32 07.3 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 3 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	4.1000e-004	0.0000	4.1000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	8.8300e-003	3.0000e-005	0.1455	2.0000e-005	0.1455	0.0149	2.0000e-005	0.0149	0.0000	2.3921	2.3921	7.0000e-005	0.0000	2.3939
Total	**1.2200e-003**	**1.0400e-003**	**8.8600e-003**	**3.0000e-005**	**0.1459**	**2.0000e-005**	**0.1459**	**0.0150**	**2.0000e-005**	**0.0150**	**0.0000**	**2.4307**	**2.4307**	**7.0000e-005**	**0.0000**	**2.4325**

3.33 09.3 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 3 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0476	0.4517	0.3052	7.6000e-004		0.0206	0.0206		0.0189	0.0189	0.0000	66.5385	66.5385	0.0215	0.0000	67.0765
Total	**0.0476**	**0.4517**	**0.3052**	**7.6000e-004**	**0.0000**	**0.0206**	**0.0206**	**0.0000**	**0.0189**	**0.0189**	**0.0000**	**66.5385**	**66.5385**	**0.0215**	**0.0000**	**67.0765**

3.33 09.3 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 3 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	4.1000e-004	0.0000	4.1000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6600e-003	1.2300e-003	0.0120	4.0000e-005	0.1984	3.0000e-005	0.1984	0.0204	2.0000e-005	0.0204	0.0000	3.2619	3.2619	1.0000e-004	0.0000	3.2644
Total	**1.6600e-003**	**1.3700e-003**	**0.0121**	**4.0000e-005**	**0.1988**	**3.0000e-005**	**0.1988**	**0.0204**	**2.0000e-005**	**0.0204**	**0.0000**	**3.3005**	**3.3005**	**1.0000e-004**	**0.0000**	**3.3030**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0476	0.4517	0.3052	7.6000e-004		0.0206	0.0206		0.0189	0.0189	0.0000	66.5385	66.5385	0.0215	0.0000	67.0765
Total	**0.0476**	**0.4517**	**0.3052**	**7.6000e-004**	**0.0000**	**0.0206**	**0.0206**	**0.0000**	**0.0189**	**0.0189**	**0.0000**	**66.5385**	**66.5385**	**0.0215**	**0.0000**	**67.0765**

3.33 09.3 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 3 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	4.1000e-004	0.0000	4.1000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6600e-003	1.2300e-003	0.0120	4.0000e-005	0.1984	3.0000e-005	0.1984	0.0204	2.0000e-005	0.0204	0.0000	3.2619	3.2619	1.0000e-004	0.0000	3.2644
Total	**1.6600e-003**	**1.3700e-003**	**0.0121**	**4.0000e-005**	**0.1988**	**3.0000e-005**	**0.1988**	**0.0204**	**2.0000e-005**	**0.0204**	**0.0000**	**3.3005**	**3.3005**	**1.0000e-004**	**0.0000**	**3.3030**

3.34 09.2 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0349	0.3312	0.2238	5.6000e-004		0.0151	0.0151		0.0139	0.0139	0.0000	48.7949	48.7949	0.0158	0.0000	49.1895
Total	**0.0349**	**0.3312**	**0.2238**	**5.6000e-004**	**0.0000**	**0.0151**	**0.0151**	**0.0000**	**0.0139**	**0.0139**	**0.0000**	**48.7949**	**48.7949**	**0.0158**	**0.0000**	**49.1895**

3.34 09.2 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 2 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	4.1000e-004	0.0000	4.1000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	8.8300e-003	3.0000e-005	0.1455	2.0000e-005	0.1455	0.0149	2.0000e-005	0.0149	0.0000	2.3921	2.3921	7.0000e-005	0.0000	2.3939
Total	**1.2200e-003**	**1.0400e-003**	**8.8600e-003**	**3.0000e-005**	**0.1459**	**2.0000e-005**	**0.1459**	**0.0150**	**2.0000e-005**	**0.0150**	**0.0000**	**2.4307**	**2.4307**	**7.0000e-005**	**0.0000**	**2.4325**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0349	0.3312	0.2238	5.6000e-004		0.0151	0.0151		0.0139	0.0139	0.0000	48.7949	48.7949	0.0158	0.0000	49.1894
Total	**0.0349**	**0.3312**	**0.2238**	**5.6000e-004**	**0.0000**	**0.0151**	**0.0151**	**0.0000**	**0.0139**	**0.0139**	**0.0000**	**48.7949**	**48.7949**	**0.0158**	**0.0000**	**49.1894**

3.34 09.2 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 2 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	3.0000e-005	0.0000	4.1000e-004	0.0000	4.1000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0386	0.0386	0.0000	0.0000	0.0387
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	8.8300e-003	3.0000e-005	0.1455	2.0000e-005	0.1455	0.0149	2.0000e-005	0.0149	0.0000	2.3921	2.3921	7.0000e-005	0.0000	2.3939
Total	**1.2200e-003**	**1.0400e-003**	**8.8600e-003**	**3.0000e-005**	**0.1459**	**2.0000e-005**	**0.1459**	**0.0150**	**2.0000e-005**	**0.0150**	**0.0000**	**2.4307**	**2.4307**	**7.0000e-005**	**0.0000**	**2.4325**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

SDG&E TL 6975 Project

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2021
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Overall construction schedule (December 2019 - November 2020) and general phases provided by client; schedule was prepared based on total number of work days with assumptions regarding schedule overlaps.

Off-road Equipment -

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks; mower assumed to be "other construction equipment."

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks.

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client.

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks; pressure digger is substituted by bore/drill rig.

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks; pressure digger is substituted by bore/drill rig.

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks; pressure digger is substituted by bore/drill rig.

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks.

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks.

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks.

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks.

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks.

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks.

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks; double-bullwheel and drum puller assumed to be "other construction equipment."

Off-road Equipment - Construction eqiupment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks; double-bullwheel and drum puller assumed to be "other construction equipment."

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks; double-bullwheel and drum puller assumed to be "other construction equipment."

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks; wire dolly and pulling rig assumed to be "other construction equipment."

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks; mower assumed to be "other construction equipment."

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks; mower assumed to be "other construction equipment."

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks; mower assumed to be "other construction equipment."

Off-road Equipment - Construction equipment, unit amount, hourse/day, and horsepower provided by client; all trucks assumed to be off-highway trucks; ditch witch substituted with a trencher.

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks; ditch witch substituted with a trencher.

Off-road Equipment - Construction equipment, unit amount, house/day, and horsepower provided by client; all trucks assumed to be off-highway trucks; ditch witch substituted with a trencher.

Off-road Equipment - Construction equipment, unit amount, hours/day, and horsepower provided by client; all trucks assumed to be off-highway trucks.

Off-road Equipment - Project specific information

Off-road Equipment - Project specific construction information

Off-road Equipment - Project specific construction information

SDG&E TL 6975 Project - San Diego County, Winter

Off-road Equipment - Project specific construction information
Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT - Based on information provided by client. All delivery trips accounted for with haul truck trips, using default trip lenghts of 20 miles.

On-road Fugitive Dust - Assumes 5% of vehicle travel would be on unpaved roads, with a mean vehicle speed of 15mph.

Grading - Acres to be graded based on data from project description and assumptions based on work areas for poles.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
tblConstructionPhase	NumDays	0.00	15.00
tblConstructionPhase	NumDays	0.00	15.00
tblConstructionPhase	NumDays	0.00	28.00
tblConstructionPhase	NumDays	0.00	48.00
tblConstructionPhase	NumDays	0.00	77.00
tblConstructionPhase	NumDays	0.00	39.00
tblConstructionPhase	NumDays	0.00	31.00
tblConstructionPhase	NumDays	0.00	31.00
tblConstructionPhase	NumDays	0.00	15.00
tblConstructionPhase	NumDays	0.00	98.00
tblConstructionPhase	NumDays	0.00	77.00
tblConstructionPhase	NumDays	0.00	2.00
tblConstructionPhase	NumDays	0.00	68.00
tblConstructionPhase	NumDays	0.00	55.00

tblConstructionPhase	NumDays	0.00	75.00
tblConstructionPhase	NumDays	0.00	11.00
tblConstructionPhase	NumDays	0.00	11.00
tblConstructionPhase	NumDays	0.00	18.00
tblConstructionPhase	NumDays	0.00	15.00
tblConstructionPhase	NumDays	0.00	33.00
tblConstructionPhase	NumDays	0.00	30.00
tblConstructionPhase	NumDays	0.00	34.00
tblConstructionPhase	NumDays	0.00	33.00
tblConstructionPhase	NumDays	0.00	45.00
tblConstructionPhase	NumDays	0.00	33.00
tblConstructionPhase	NumDays	0.00	63.00
tblConstructionPhase	NumDays	0.00	33.00
tblGrading	AcresOfGrading	0.00	0.18
tblGrading	AcresOfGrading	0.00	0.06
tblGrading	AcresOfGrading	0.00	0.04
tblGrading	AcresOfGrading	0.00	0.32
tblGrading	AcresOfGrading	0.00	0.10
tblGrading	AcresOfGrading	0.00	1.85
tblGrading	AcresOfGrading	0.00	0.01
tblGrading	AcresOfGrading	0.00	0.64
tblGrading	AcresOfGrading	0.00	0.25
tblGrading	AcresOfGrading	0.00	0.53
tblGrading	AcresOfGrading	0.00	0.32
tblGrading	AcresOfGrading	0.00	0.76
tblGrading	AcresOfGrading	18.75	2.84
tblGrading	AcresOfGrading	8.50	0.00

tblGrading	AcresOfGrading	0.00	0.23
tblGrading	AcresOfGrading	11.25	0.00
tblGrading	AcresOfGrading	8.25	0.00
tblGrading	AcresOfGrading	23.63	2.85
tblGrading	MaterialExported	0.00	1,403.00
tblGrading	MaterialExported	0.00	937.00
tblGrading	MaterialImported	0.00	3,063.00
tblOffRoadEquipment	HorsePower	97.00	250.00
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tblOffRoadEquipment	HorsePower	97.00	300.00
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2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	3.1517	30.0906	18.8456	0.0417	46.5438	2.6181	47.9958	4.7415	2.4591	6.0774	0.0000	4,147.1318	4,147.1318	1.2151	0.0000	4,177.5083
2020	18.4202	173.0571	112.5308	0.3202	80.5771	7.3325	87.5970	8.2485	6.7941	14.7432	0.0000	31,046.5856	31,046.5856	9.2782	0.0000	31,278.1853
Maximum	**18.4202**	**173.0571**	**112.5308**	**0.3202**	**80.5771**	**7.3325**	**87.5970**	**8.2485**	**6.7941**	**14.7432**	**0.0000**	**31,046.5856**	**31,046.5856**	**9.2782**	**0.0000**	**31,278.1853**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	3.1517	30.0906	18.8456	0.0417	46.5438	2.6181	47.9958	4.7415	2.4591	6.0774	0.0000	4,147.1318	4,147.1318	1.2151	0.0000	4,177.5083
2020	18.4202	173.0571	112.5308	0.3202	80.5771	7.3325	87.5970	8.2485	6.7941	14.7432	0.0000	31,046.5856	31,046.5856	9.2782	0.0000	31,278.1853
Maximum	**18.4202**	**173.0571**	**112.5308**	**0.3202**	**80.5771**	**7.3325**	**87.5970**	**8.2485**	**6.7941**	**14.7432**	**0.0000**	**31,046.5856**	**31,046.5856**	**9.2782**	**0.0000**	**31,278.1853**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	12/30/2019	12/29/2019	5	0	
2	Site Preparation	Site Preparation	12/30/2019	12/29/2019	5	0	
3	01 Pre-Construction Activities	Grading	12/30/2019	2/7/2020	5	30	
4	Grading	Grading	12/30/2019	12/29/2019	5	0	
5	Building Construction	Building Construction	12/30/2019	12/29/2019	5	0	
6	Paving	Paving	12/30/2019	12/29/2019	5	0	
7	Architectural Coating	Architectural Coating	12/30/2019	12/29/2019	5	0	
8	02 Access Road Construction/Refreshing	Grading	1/21/2020	4/16/2020	5	63	
9	03 Material Haul	Grading	1/21/2020	3/5/2020	5	33	
10	04.1 Auger Holes, Direct Bury Poles - Seg 1	Grading	1/21/2020	2/27/2020	5	28	
11	05.1 Foundation Construction (Pier) - Seg 1	Grading	1/21/2020	3/26/2020	5	48	
12	11 AC Interference Mitigation System Installation	Grading	2/1/2020	5/19/2020	5	77	
13	12.1 Micropile Foundation Construction	Grading	2/1/2020	3/26/2020	5	39	
14	04.2 Auger Holes, Direct Bury Poles - Seg 2	Grading	2/28/2020	4/10/2020	5	31	
15	06.1 Structure Installation and Assembly - Seg 1	Grading	2/28/2020	4/10/2020	5	31	
16	10.1 Substation Work (San Marcos) below grade	Grading	2/28/2020	3/19/2020	5	15	
17	08 Trenching for Installation of Undergound Cables	Grading	3/2/2020	7/15/2020	5	98	

18	10.2 Substation Work (San Marcos) above grade	Building Construction	3/20/2020	4/9/2020	5	15	
19	05.2 Foundation Construction (Pier) - Seg 2	Grading	3/27/2020	7/13/2020	5	77	
20	04.3 Auger Holes, Direct Bury Poles - Seg 3	Grading	4/10/2020	4/13/2020	5	2	
21	06.2 Structure Installation and Assembly - Seg 2	Grading	4/13/2020	7/15/2020	5	68	
22	07.1 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 1	Grading	4/13/2020	6/26/2020	5	55	
23	12.2 Micropile Foundation Construction	Grading	5/1/2020	8/13/2020	5	75	
24	12.3 Micropile Foundation Construction	Grading	5/1/2020	5/15/2020	5	11	
25	05.3 Foundation Construction (Pier) - Seg 3	Grading	6/1/2020	6/15/2020	5	11	
26	06.3 Structure Installation and Assembly - Seg 3	Grading	6/8/2020	7/1/2020	5	18	
27	10.3 Substation Work (Escondido) below grade	Grading	6/8/2020	6/26/2020	5	15	
28	10.4 Substation Work (Escondido) above grade	Building Construction	6/27/2020	7/17/2020	5	15	
29	07.2 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 2	Grading	6/29/2020	8/12/2020	5	33	
30	09.1 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 1	Grading	6/29/2020	8/13/2020	5	34	
31	07.3 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 3	Grading	8/13/2020	9/28/2020	5	33	
32	09.3 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 3	Grading	8/14/2020	10/15/2020	5	45	
33	09.2 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 2	Grading	9/29/2020	11/12/2020	5	33	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
01 Pre-Construction Activities	Concrete/Industrial Saws	0	8.00	81	0.73
01 Pre-Construction Activities	Excavators	2	3.00	162	0.38
01 Pre-Construction Activities	Graders	2	5.00	174	0.41
01 Pre-Construction Activities	Off-Highway Trucks	2	3.00	250	0.38
01 Pre-Construction Activities	Off-Highway Trucks	2	4.00	250	0.38
01 Pre-Construction Activities	Off-Highway Trucks	1	4.00	250	0.38
01 Pre-Construction Activities	Other Construction Equipment	2	4.00	74	0.42
01 Pre-Construction Activities	Rubber Tired Dozers	0	1.00	247	0.40
01 Pre-Construction Activities	Tractors/Loaders/Backhoes	2	4.00	37	0.37
01 Pre-Construction Activities	Tractors/Loaders/Backhoes	1	4.00	250	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38

Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
02 Access Road Construction/Refreshing	Concrete/Industrial Saws	0	8.00	81	0.73
02 Access Road Construction/Refreshing	Graders	1	6.00	174	0.41
02 Access Road Construction/Refreshing	Off-Highway Tractors	1	4.00	250	0.44
02 Access Road Construction/Refreshing	Off-Highway Trucks	2	5.00	250	0.38
02 Access Road Construction/Refreshing	Rubber Tired Dozers	0	1.00	247	0.40
02 Access Road Construction/Refreshing	Tractors/Loaders/Backhoes	0	6.00	97	0.37
03 Material Haul	Concrete/Industrial Saws	0	8.00	81	0.73
03 Material Haul	Cranes	2	4.00	250	0.29
03 Material Haul	Forklifts	2	4.00	83	0.20
03 Material Haul	Rubber Tired Dozers	0	1.00	247	0.40
03 Material Haul	Tractors/Loaders/Backhoes	0	6.00	97	0.37
04.1 Auger Holes, Direct Bury Poles - Seg 1	Air Compressors	2	4.00	78	0.48
04.1 Auger Holes, Direct Bury Poles - Seg 1	Bore/Drill Rigs	2	6.00	82	0.50
04.1 Auger Holes, Direct Bury Poles - Seg 1	Bore/Drill Rigs	1	4.00	82	0.50
04.1 Auger Holes, Direct Bury Poles - Seg 1	Concrete/Industrial Saws	0	8.00	81	0.73
04.1 Auger Holes, Direct Bury Poles - Seg 1	Off-Highway Trucks	2	6.00	250	0.38
04.1 Auger Holes, Direct Bury Poles - Seg 1	Off-Highway Trucks	2	5.00	250	0.38
04.1 Auger Holes, Direct Bury Poles - Seg 1	Off-Highway Trucks	2	4.00	250	0.38
04.1 Auger Holes, Direct Bury Poles - Seg 1	Off-Highway Trucks	2	4.00	250	0.38
04.1 Auger Holes, Direct Bury Poles - Seg 1	Rubber Tired Dozers	0	1.00	247	0.40

04.1 Auger Holes, Direct Bury Poles - Seg 1	Tractors/Loaders/Backhoes	1	3.00	250	0.37
05.1 Foundation Construction (Pier) - Seg 1	Air Compressors	1	4.00	78	0.48
05.1 Foundation Construction (Pier) - Seg 1	Bore/Drill Rigs	1	7.00	82	0.50
05.1 Foundation Construction (Pier) - Seg 1	Concrete/Industrial Saws	0	8.00	81	0.73
05.1 Foundation Construction (Pier) - Seg 1	Excavators	1	4.00	162	0.38
05.1 Foundation Construction (Pier) - Seg 1	Forklifts	1	3.00	83	0.20
05.1 Foundation Construction (Pier) - Seg 1	Generator Sets	1	3.00	84	0.74
05.1 Foundation Construction (Pier) - Seg 1	Off-Highway Trucks	1	3.00	250	0.38
05.1 Foundation Construction (Pier) - Seg 1	Off-Highway Trucks	1	4.00	250	0.38
05.1 Foundation Construction (Pier) - Seg 1	Off-Highway Trucks	1	3.00	250	0.38
05.1 Foundation Construction (Pier) - Seg 1	Rubber Tired Dozers	0	1.00	247	0.40
05.1 Foundation Construction (Pier) - Seg 1	Tractors/Loaders/Backhoes	1	3.00	37	0.37
11 AC Interference Mitigation System Installation	Bore/Drill Rigs	1	8.00	500	0.50
11 AC Interference Mitigation System Installation	Off-Highway Trucks	1	4.00	430	0.38
11 AC Interference Mitigation System Installation	Off-Highway Trucks	1	6.00	550	0.38
11 AC Interference Mitigation System Installation	Off-Highway Trucks	1	8.00	550	0.38
11 AC Interference Mitigation System Installation	Off-Highway Trucks	1	4.00	310	0.38
11 AC Interference Mitigation System Installation	Other General Industrial Equipment	1	6.00	74	0.34
11 AC Interference Mitigation System Installation	Tractors/Loaders/Backhoes	1	2.00	300	0.37
04.2 Auger Holes, Direct Bury Poles - Seg 2	Air Compressors	2	4.00	78	0.48
04.2 Auger Holes, Direct Bury Poles - Seg 2	Bore/Drill Rigs	2	6.00	82	0.50
04.2 Auger Holes, Direct Bury Poles - Seg 2	Bore/Drill Rigs	1	4.00	82	0.50

04.2 Auger Holes, Direct Bury Poles - Seg 2	Concrete/Industrial Saws	0	8.00	81	0.73
04.2 Auger Holes, Direct Bury Poles - Seg 2	Off-Highway Trucks	2	6.00	250	0.38
04.2 Auger Holes, Direct Bury Poles - Seg 2	Off-Highway Trucks	2	5.00	250	0.38
04.2 Auger Holes, Direct Bury Poles - Seg 2	Off-Highway Trucks	2	4.00	250	0.38
04.2 Auger Holes, Direct Bury Poles - Seg 2	Off-Highway Trucks	2	4.00	250	0.38
04.2 Auger Holes, Direct Bury Poles - Seg 2	Rubber Tired Dozers	0	1.00	247	0.40
04.2 Auger Holes, Direct Bury Poles - Seg 2	Tractors/Loaders/Backhoes	1	3.00	250	0.37
06.1 Structure Installation and Assembly - Seg 1	Concrete/Industrial Saws	0	8.00	81	0.73
06.1 Structure Installation and Assembly - Seg 1	Off-Highway Trucks	2	4.00	250	0.38
06.1 Structure Installation and Assembly - Seg 1	Off-Highway Trucks	3	6.00	250	0.38
06.1 Structure Installation and Assembly - Seg 1	Off-Highway Trucks	2	5.00	250	0.38
06.1 Structure Installation and Assembly - Seg 1	Off-Highway Trucks	3	6.00	250	0.38
06.1 Structure Installation and Assembly - Seg 1	Rubber Tired Dozers	0	1.00	247	0.40
06.1 Structure Installation and Assembly - Seg 1	Tractors/Loaders/Backhoes	0	6.00	97	0.37
10.1 Substation Work (San Marcos) below grade	Bore/Drill Rigs	1	4.00	250	0.50
10.1 Substation Work (San Marcos) below grade	Concrete/Industrial Saws	0	8.00	81	0.73
10.1 Substation Work (San Marcos) below grade	Off-Highway Trucks	1	1.00	250	0.38
10.1 Substation Work (San Marcos) below grade	Off-Highway Trucks	1	4.00	250	0.38
10.1 Substation Work (San Marcos) below grade	Rubber Tired Dozers	0	1.00	247	0.40
10.1 Substation Work (San Marcos) below grade	Tractors/Loaders/Backhoes	0	6.00	97	0.37
10.1 Substation Work (San Marcos) below grade	Trenchers	1	3.00	250	0.50
08 Trenching for Installation of Undergound Cables	Concrete/Industrial Saws	0	8.00	81	0.73

08 Trenching for Installation of Undergound Cables	Cranes	1	4.00	226	0.29
08 Trenching for Installation of Undergound Cables	Off-Highway Tractors	1	3.00	250	0.44
08 Trenching for Installation of Undergound Cables	Off-Highway Trucks	2	3.00	400	0.38
08 Trenching for Installation of Undergound Cables	Off-Highway Trucks	1	3.00	250	0.38
08 Trenching for Installation of Undergound Cables	Off-Highway Trucks	1	4.00	250	0.38
08 Trenching for Installation of Undergound Cables	Other Construction Equipment	1	3.00	82	0.42
08 Trenching for Installation of Undergound Cables	Other Construction Equipment	1	4.00	82	0.42
08 Trenching for Installation of Undergound Cables	Rubber Tired Dozers	0	1.00	247	0.40
08 Trenching for Installation of Undergound Cables	Tractors/Loaders/Backhoes	1	3.00	97	0.37
10.2 Substation Work (San Marcos) above grade	Cranes	0	4.00	231	0.29
10.2 Substation Work (San Marcos) above grade	Forklifts	0	6.00	89	0.20
10.2 Substation Work (San Marcos) above grade	Off-Highway Tractors	1	1.00	250	0.44
10.2 Substation Work (San Marcos) above grade	Off-Highway Trucks	1	1.00	250	0.38
10.2 Substation Work (San Marcos) above grade	Off-Highway Trucks	1	3.00	250	0.38
10.2 Substation Work (San Marcos) above grade	Off-Highway Trucks	1	3.00	250	0.38
10.2 Substation Work (San Marcos) above grade	Off-Highway Trucks	1	1.00	250	0.38
10.2 Substation Work (San Marcos) above grade	Off-Highway Trucks	1	1.00	250	0.38
10.2 Substation Work (San Marcos) above grade	Off-Highway Trucks	1	3.00	250	0.38
10.2 Substation Work (San Marcos) above grade	Off-Highway Trucks	1	3.00	250	0.38
10.2 Substation Work (San Marcos) above grade	Off-Highway Trucks	2	1.00	250	0.38
10.2 Substation Work (San Marcos) above grade	Off-Highway Trucks	1	1.00	250	0.38
10.2 Substation Work (San Marcos) above grade	Off-Highway Trucks	1	1.00	250	0.38

10.2 Substation Work (San Marcos) above grade	Tractors/Loaders/Backhoes	0	8.00	97	0.37
05.2 Foundation Construction (Pier) - Seg 2	Air Compressors	1	4.00	78	0.48
05.2 Foundation Construction (Pier) - Seg 2	Bore/Drill Rigs	1	7.00	82	0.50
05.2 Foundation Construction (Pier) - Seg 2	Concrete/Industrial Saws	0	8.00	81	0.73
05.2 Foundation Construction (Pier) - Seg 2	Excavators	1	4.00	162	0.38
05.2 Foundation Construction (Pier) - Seg 2	Forklifts	1	3.00	83	0.20
05.2 Foundation Construction (Pier) - Seg 2	Generator Sets	1	3.00	84	0.74
05.2 Foundation Construction (Pier) - Seg 2	Off-Highway Trucks	1	3.00	250	0.38
05.2 Foundation Construction (Pier) - Seg 2	Off-Highway Trucks	1	4.00	250	0.38
05.2 Foundation Construction (Pier) - Seg 2	Off-Highway Trucks	1	3.00	250	0.38
05.2 Foundation Construction (Pier) - Seg 2	Rubber Tired Dozers	0	1.00	247	0.40
05.2 Foundation Construction (Pier) - Seg 2	Tractors/Loaders/Backhoes	1	3.00	37	0.37
04.3 Auger Holes, Direct Bury Poles - Seg 3	Air Compressors	2	4.00	78	0.48
04.3 Auger Holes, Direct Bury Poles - Seg 3	Bore/Drill Rigs	2	6.00	82	0.50
04.3 Auger Holes, Direct Bury Poles - Seg 3	Bore/Drill Rigs	1	4.00	82	0.50
04.3 Auger Holes, Direct Bury Poles - Seg 3	Concrete/Industrial Saws	0	8.00	81	0.73
04.3 Auger Holes, Direct Bury Poles - Seg 3	Off-Highway Trucks	2	6.00	250	0.38
04.3 Auger Holes, Direct Bury Poles - Seg 3	Off-Highway Trucks	2	5.00	250	0.38
04.3 Auger Holes, Direct Bury Poles - Seg 3	Off-Highway Trucks	2	4.00	250	0.38
04.3 Auger Holes, Direct Bury Poles - Seg 3	Off-Highway Trucks	2	4.00	250	0.38
04.3 Auger Holes, Direct Bury Poles - Seg 3	Rubber Tired Dozers	0	1.00	247	0.40
04.3 Auger Holes, Direct Bury Poles - Seg 3	Tractors/Loaders/Backhoes	1	3.00	250	0.37

06.2 Structure Installation and Assembly - Seg 2	Concrete/Industrial Saws	0	8.00	81	0.73
06.2 Structure Installation and Assembly - Seg 2	Off-Highway Trucks	2	4.00	250	0.38
06.2 Structure Installation and Assembly - Seg 2	Off-Highway Trucks	3	6.00	250	0.38
06.2 Structure Installation and Assembly - Seg 2	Off-Highway Trucks	2	5.00	250	0.38
06.2 Structure Installation and Assembly - Seg 2	Off-Highway Trucks	3	6.00	250	0.38
06.2 Structure Installation and Assembly - Seg 2	Rubber Tired Dozers	0	1.00	247	0.40
06.2 Structure Installation and Assembly - Seg 2	Tractors/Loaders/Backhoes	0	6.00	97	0.37
07.1 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 1	Concrete/Industrial Saws	0	8.00	81	0.73
07.1 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 1	Forklifts	1	3.00	83	0.20
07.1 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 1	Off-Highway Trucks	2	6.00	250	0.38
07.1 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 1	Off-Highway Trucks	2	4.00	250	0.38
07.1 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 1	Off-Highway Trucks	2	4.00	250	0.38
07.1 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 1	Off-Highway Trucks	1	4.00	250	0.38
07.1 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 1	Off-Highway Trucks	1	5.00	82	0.44
07.1 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 1	Other Construction Equipment	1	6.00	300	0.42
07.1 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 1	Other Construction Equipment	1	6.00	300	0.42
07.1 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 1	Rubber Tired Dozers	0	1.00	247	0.40
07.1 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 1	Tractors/Loaders/Backhoes	0	6.00	97	0.37
05.3 Foundation Construction (Pier) - Seg 3	Air Compressors	1	4.00	78	0.48
05.3 Foundation Construction (Pier) - Seg 3	Bore/Drill Rigs	1	7.00	82	0.50
05.3 Foundation Construction (Pier) - Seg 3	Concrete/Industrial Saws	0	8.00	81	0.73
05.3 Foundation Construction (Pier) - Seg 3	Excavators	1	4.00	162	0.38

05.3 Foundation Construction (Pier) - Seg 3	Forklifts	1	3.00	83	0.20
05.3 Foundation Construction (Pier) - Seg 3	Generator Sets	1	3.00	84	0.74
05.3 Foundation Construction (Pier) - Seg 3	Off-Highway Trucks	1	3.00	250	0.38
05.3 Foundation Construction (Pier) - Seg 3	Off-Highway Trucks	1	4.00	250	0.38
05.3 Foundation Construction (Pier) - Seg 3	Off-Highway Trucks	1	3.00	250	0.38
05.3 Foundation Construction (Pier) - Seg 3	Rubber Tired Dozers	0	1.00	247	0.40
05.3 Foundation Construction (Pier) - Seg 3	Tractors/Loaders/Backhoes	1	3.00	37	0.37
06.3 Structure Installation and Assembly - Seg 3	Concrete/Industrial Saws	0	8.00	81	0.73
06.3 Structure Installation and Assembly - Seg 3	Off-Highway Trucks	2	4.00	250	0.38
06.3 Structure Installation and Assembly - Seg 3	Off-Highway Trucks	3	6.00	250	0.38
06.3 Structure Installation and Assembly - Seg 3	Off-Highway Trucks	2	5.00	250	0.38
06.3 Structure Installation and Assembly - Seg 3	Off-Highway Trucks	3	6.00	250	0.38
06.3 Structure Installation and Assembly - Seg 3	Rubber Tired Dozers	0	1.00	247	0.40
06.3 Structure Installation and Assembly - Seg 3	Tractors/Loaders/Backhoes	0	6.00	97	0.37
10.3 Substation Work (Escondido) below grade	Bore/Drill Rigs	1	4.00	250	0.50
10.3 Substation Work (Escondido) below grade	Concrete/Industrial Saws	0	8.00	81	0.73
10.3 Substation Work (Escondido) below grade	Off-Highway Trucks	1	1.00	250	0.38
10.3 Substation Work (Escondido) below grade	Off-Highway Trucks	1	4.00	250	0.38
10.3 Substation Work (Escondido) below grade	Rubber Tired Dozers	0	1.00	247	0.40
10.3 Substation Work (Escondido) below grade	Tractors/Loaders/Backhoes	0	6.00	97	0.37
10.3 Substation Work (Escondido) below grade	Trenchers	1	3.00	250	0.50
10.4 Substation Work (Escondido) above grade	Cranes	0	4.00	231	0.29

10.4 Substation Work (Escondido) above grade	Forklifts	0	6.00	89	0.20
10.4 Substation Work (Escondido) above grade	Off-Highway Trucks	1	1.00	250	0.38
10.4 Substation Work (Escondido) above grade	Off-Highway Trucks	1	1.00	250	0.38
10.4 Substation Work (Escondido) above grade	Off-Highway Trucks	1	3.00	250	0.38
10.4 Substation Work (Escondido) above grade	Off-Highway Trucks	1	3.00	250	0.38
10.4 Substation Work (Escondido) above grade	Off-Highway Trucks	1	1.00	250	0.38
10.4 Substation Work (Escondido) above grade	Off-Highway Trucks	1	1.00	250	0.38
10.4 Substation Work (Escondido) above grade	Off-Highway Trucks	1	3.00	250	0.38
10.4 Substation Work (Escondido) above grade	Off-Highway Trucks	1	3.00	250	0.38
10.4 Substation Work (Escondido) above grade	Off-Highway Trucks	2	1.00	250	0.38
10.4 Substation Work (Escondido) above grade	Off-Highway Trucks	1	1.00	250	0.38
10.4 Substation Work (Escondido) above grade	Off-Highway Trucks	1	1.00	250	0.38
10.4 Substation Work (Escondido) above grade	Tractors/Loaders/Backhoes	0	8.00	97	0.37
07.2 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 2	Concrete/Industrial Saws	0	8.00	81	0.73
07.2 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 2	Forklifts	1	3.00	83	0.20
07.2 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 2	Off-Highway Trucks	2	6.00	250	0.38
07.2 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 2	Off-Highway Trucks	2	4.00	250	0.38
07.2 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 2	Off-Highway Trucks	2	4.00	250	0.38
07.2 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 2	Off-Highway Trucks	1	4.00	250	0.38
07.2 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 2	Off-Highway Trucks	1	5.00	82	0.38
07.2 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 2	Other Construction Equipment	1	6.00	300	0.42
07.2 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 2	Other Construction Equipment	1	6.00	300	0.42

07.2 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 2	Rubber Tired Dozers	0	1.00	247	0.40
07.2 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 2	Tractors/Loaders/Backhoes	0	6.00	97	0.37
09.1 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 1	Concrete/Industrial Saws	0	8.00	81	0.73
09.1 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 1	Excavators	1	4.00	162	0.38
09.1 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 1	Graders	1	4.00	174	0.41
09.1 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 1	Off-Highway Trucks	1	5.00	400	0.38
09.1 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 1	Off-Highway Trucks	2	4.00	250	0.38
09.1 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 1	Off-Highway Trucks	1	4.00	250	0.38
09.1 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 1	Other Construction Equipment	1	4.00	74	0.42
09.1 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 1	Rubber Tired Dozers	0	1.00	247	0.40
09.1 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 1	Tractors/Loaders/Backhoes	1	4.00	97	0.37
09.1 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 1	Tractors/Loaders/Backhoes	1	4.00	37	0.37
09.1 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 1	Tractors/Loaders/Backhoes	1	4.00	250	0.37
07.3 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 3	Concrete/Industrial Saws	0	8.00	81	0.73
07.3 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 3	Forklifts	1	3.00	83	0.20
07.3 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 3	Off-Highway Trucks	2	6.00	250	0.38
07.3 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 3	Off-Highway Trucks	2	4.00	250	0.38
07.3 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 3	Off-Highway Trucks	2	4.00	250	0.38
07.3 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 3	Off-Highway Trucks	1	4.00	250	0.38
07.3 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 3	Off-Highway Trucks	1	5.00	82	0.38
07.3 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 3	Other Construction Equipment	1	6.00	300	0.42
07.3 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 3	Other Construction Equipment	1	6.00	300	0.42

07.3 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 3	Rubber Tired Dozers	0	1.00	247	0.40
07.3 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 3	Tractors/Loaders/Backhoes	0	6.00	97	0.37
09.3 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 3	Concrete/Industrial Saws	0	8.00	81	0.73
09.3 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 3	Excavators	1	4.00	162	0.38
09.3 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 3	Graders	1	4.00	174	0.41
09.3 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 3	Off-Highway Trucks	1	5.00	400	0.38
09.3 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 3	Off-Highway Trucks	2	4.00	250	0.38
09.3 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 3	Off-Highway Trucks	1	4.00	250	0.38
09.3 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 3	Other Construction Equipment	1	4.00	74	0.42
09.3 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 3	Rubber Tired Dozers	0	1.00	247	0.40
09.3 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 3	Tractors/Loaders/Backhoes	1	4.00	97	0.37
09.3 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 3	Tractors/Loaders/Backhoes	1	4.00	37	0.37
09.3 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 3	Tractors/Loaders/Backhoes	1	4.00	250	0.37
09.2 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 2	Concrete/Industrial Saws	0	8.00	81	0.73
09.2 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 2	Excavators	1	4.00	162	0.38
09.2 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 2	Graders	1	4.00	174	0.41
09.2 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 2	Off-Highway Trucks	1	5.00	400	0.38
09.2 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 2	Off-Highway Trucks	2	4.00	250	0.38
09.2 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 2	Off-Highway Trucks	1	4.00	250	0.38
09.2 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 2	Other Construction Equipment	1	4.00	74	0.42
09.2 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 2	Rubber Tired Dozers	0	1.00	247	0.40
09.2 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 2	Tractors/Loaders/Backhoes	1	4.00	97	0.37

09.2 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 2	Tractors/Loaders/Backhoes	1	4.00	37	0.37
09.2 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 2	Tractors/Loaders/Backhoes	1	4.00	250	0.37
12.1 Micropile Foundation Construction	Air Compressors	2	3.00	78	0.48
12.1 Micropile Foundation Construction	Cranes	2	3.00	226	0.29
12.1 Micropile Foundation Construction	Forklifts	2	3.00	83	0.20
12.1 Micropile Foundation Construction	Generator Sets	2	4.00	84	0.74
12.1 Micropile Foundation Construction	Off-Highway Trucks	2	4.00	250	0.38
12.1 Micropile Foundation Construction	Off-Highway Trucks	2	4.00	250	0.38
12.1 Micropile Foundation Construction	Off-Highway Trucks	1	3.00	250	0.38
12.1 Micropile Foundation Construction	Off-Highway Trucks	1	4.00	250	0.38
12.1 Micropile Foundation Construction	Other General Industrial Equipment	1	3.00	84	0.34
12.1 Micropile Foundation Construction	Tractors/Loaders/Backhoes	1	3.00	97	0.37
12.1 Micropile Foundation Construction	Tractors/Loaders/Backhoes	1	3.00	250	0.37
12.2 Micropile Foundation Construction	Air Compressors	2	3.00	78	0.48
12.2 Micropile Foundation Construction	Cranes	2	3.00	226	0.29
12.2 Micropile Foundation Construction	Forklifts	2	3.00	83	0.20
12.2 Micropile Foundation Construction	Generator Sets	2	4.00	84	0.74
12.2 Micropile Foundation Construction	Off-Highway Trucks	2	4.00	250	0.38
12.2 Micropile Foundation Construction	Off-Highway Trucks	2	4.00	250	0.38
12.2 Micropile Foundation Construction	Off-Highway Trucks	1	3.00	250	0.38
12.2 Micropile Foundation Construction	Off-Highway Trucks	1	4.00	250	0.38
12.2 Micropile Foundation Construction	Other General Industrial Equipment	1	3.00	84	0.34
12.2 Micropile Foundation Construction	Tractors/Loaders/Backhoes	1	3.00	97	0.37
12.2 Micropile Foundation Construction	Tractors/Loaders/Backhoes	1	3.00	250	0.37
12.3 Micropile Foundation Construction	Air Compressors	2	3.00	78	0.48
12.3 Micropile Foundation Construction	Cranes	2	3.00	226	0.29
12.3 Micropile Foundation Construction	Forklifts	2	3.00	83	0.20

12.3 Micropile Foundation Construction	Generator Sets	2	4.00	84	0.74
12.3 Micropile Foundation Construction	Off-Highway Trucks	2	4.00	250	0.38
12.3 Micropile Foundation Construction	Off-Highway Trucks	2	4.00	250	0.38
12.3 Micropile Foundation Construction	Off-Highway Trucks	1	3.00	250	0.38
12.3 Micropile Foundation Construction	Off-Highway Trucks	1	4.00	250	0.38
12.3 Micropile Foundation Construction	Other General Industrial Equipment	1	3.00	84	0.34
12.3 Micropile Foundation Construction	Tractors/Loaders/Backhoes	1	3.00	97	0.37
12.3 Micropile Foundation Construction	Tractors/Loaders/Backhoes	1	3.00	250	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
01 Pre-Construction Activities	14	20.00	0.00	80.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
02 Access Road Construction/Refreshi	4	10.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
03 Material Haul	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
04.1 Auger Holes, Direct Bury Poles - Se	14	20.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
05.1 Foundation Construction (Pier) - S	9	10.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
04.2 Auger Holes, Direct Bury Poles - Se	14	20.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
06.1 Structure Installation and Assem	10	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
10.1 Substation Work (San Marcos) below gr	4	8.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
08 Trenching for Installation of Undergo	9	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

10.2 Substation Work (San Marcos) above g	12	34.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
05.2 Foundation Construction (Pier) - S	9	10.00	0.00	281.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
04.3 Auger Holes, Direct Bury Poles - So	14	20.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
06.2 Structure Installation and Assem	10	20.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
07.1 Stringing Activities/Transfer Con	11	20.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
05.3 Foundation Construction (Pier) - S	9	10.00	0.00	61.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
06.3 Structure Installation and Assem	10	20.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
10.3 Substation Work (Escondido) below gra	4	8.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
10.4 Substation Work (Escondido) above gra	12	34.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
07.2 Stringing Activities/Transfer Con	11	20.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
09.1 Demobilization/ROW	10	20.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
07.3 Stringing Activities/Transfer Con	11	20.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
09.3 Demobilization/ROW	10	20.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
09.2 Demobilization/ROW	10	20.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
11 AC Interference Mitigation System Inst	7	8.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
12.1 Micropile Foundation Constructi	17	20.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
12.2 Micropile Foundation Constructi	17	20.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
12.3 Micropile Foundation Constructi	17	20.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 01 Pre-Construction Activities - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1004	0.0000	0.1004	0.0108	0.0000	0.0108			0.0000			0.0000
Off-Road	3.0391	29.2198	18.0755	0.0379		1.4478	1.4478		1.3320	1.3320		3,756.8400	3,756.8400	1.1886		3,786.5557
Total	**3.0391**	**29.2198**	**18.0755**	**0.0379**	**0.1004**	**1.4478**	**1.5482**	**0.0108**	**1.3320**	**1.3428**		**3,756.8400**	**3,756.8400**	**1.1886**		**3,786.5557**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0238	0.8092	0.1853	2.0800e-003	36.5551	3.0900e-003	36.5582	3.7191	2.9600e-003	3.7220		226.9090	226.9090	0.0212		227.4381
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0888	0.0616	0.5848	1.6400e-003	9.8883	1.1700e-003	9.8895	1.0116	1.0800e-003	1.0126		163.3828	163.3828	5.2700e-003		163.5146
Total	**0.1126**	**0.8708**	**0.7701**	**3.7200e-003**	**46.4434**	**4.2600e-003**	**46.4476**	**4.7306**	**4.0400e-003**	**4.7347**		**390.2918**	**390.2918**	**0.0264**		**390.9527**

3.4 01 Pre-Construction Activities - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1004	0.0000	0.1004	0.0108	0.0000	0.0108			0.0000			0.0000
Off-Road	3.0391	29.2198	18.0755	0.0379		1.4478	1.4478		1.3320	1.3320	0.0000	3,756.8400	3,756.8400	1.1886		3,786.5557
Total	**3.0391**	**29.2198**	**18.0755**	**0.0379**	**0.1004**	**1.4478**	**1.5482**	**0.0108**	**1.3320**	**1.3428**	**0.0000**	**3,756.8400**	**3,756.8400**	**1.1886**		**3,786.5557**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0238	0.8092	0.1853	2.0800e-003	36.5551	3.0900e-003	36.5582	3.7191	2.9600e-003	3.7220		226.9090	226.9090	0.0212		227.4381
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0888	0.0616	0.5848	1.6400e-003	9.8883	1.1700e-003	9.8895	1.0116	1.0800e-003	1.0126		163.3828	163.3828	5.2700e-003		163.5146
Total	**0.1126**	**0.8708**	**0.7701**	**3.7200e-003**	**46.4434**	**4.2600e-003**	**46.4476**	**4.7306**	**4.0400e-003**	**4.7347**		**390.2918**	**390.2918**	**0.0264**		**390.9527**

3.4 01 Pre-Construction Activities - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1004	0.0000	0.1004	0.0108	0.0000	0.0108			0.0000			0.0000
Off-Road	2.7841	25.9162	17.6890	0.0380		1.2800	1.2800		1.1776	1.1776		3,676.1209	3,676.1209	1.1889		3,705.8442
Total	**2.7841**	**25.9162**	**17.6890**	**0.0380**	**0.1004**	**1.2800**	**1.3804**	**0.0108**	**1.1776**	**1.1885**		**3,676.1209**	**3,676.1209**	**1.1889**		**3,705.8442**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0217	0.7511	0.1801	2.0500e-003	2.6216	2.4200e-003	2.6240	0.2695	2.3200e-003	0.2718		224.4361	224.4361	0.0208		224.9562
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	9.8883	1.1500e-003	9.8895	1.0116	1.0600e-003	1.0126		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.1048**	**0.8066**	**0.7146**	**3.6400e-003**	**12.5099**	**3.5700e-003**	**12.5135**	**1.2810**	**3.3800e-003**	**1.2844**		**382.6625**	**382.6625**	**0.0256**		**383.3017**

3.4 01 Pre-Construction Activities - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1004	0.0000	0.1004	0.0108	0.0000	0.0108			0.0000			0.0000
Off-Road	2.7841	25.9162	17.6890	0.0380		1.2800	1.2800		1.1776	1.1776	0.0000	3,676.1209	3,676.1209	1.1889		3,705.8442
Total	**2.7841**	**25.9162**	**17.6890**	**0.0380**	**0.1004**	**1.2800**	**1.3804**	**0.0108**	**1.1776**	**1.1885**	**0.0000**	**3,676.1209**	**3,676.1209**	**1.1889**		**3,705.8442**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0217	0.7511	0.1801	2.0500e-003	2.6216	2.4200e-003	2.6240	0.2695	2.3200e-003	0.2718		224.4361	224.4361	0.0208		224.9562
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	9.8883	1.1500e-003	9.8895	1.0116	1.0600e-003	1.0126		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.1048**	**0.8066**	**0.7146**	**3.6400e-003**	**12.5099**	**3.5700e-003**	**12.5135**	**1.2810**	**3.3800e-003**	**1.2844**		**382.6625**	**382.6625**	**0.0256**		**383.3017**

3.5 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Grading - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Paving - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.8 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.8 Architectural Coating - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.9 02 Access Road Construction/Refreshing - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0480	0.0000	0.0480	5.1800e-003	0.0000	5.1800e-003			0.0000			0.0000
Off-Road	1.3250	12.9684	7.4764	0.0195		0.5793	0.5793		0.5330	0.5330		1,892.6562	1,892.6562	0.6121		1,907.9593
Total	**1.3250**	**12.9684**	**7.4764**	**0.0195**	**0.0480**	**0.5793**	**0.6273**	**5.1800e-003**	**0.5330**	**0.5381**		**1,892.6562**	**1,892.6562**	**0.6121**		**1,907.9593**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.6000e-004	8.9400e-003	2.1400e-003	2.0000e-005	0.0291	3.0000e-005	0.0292	3.0000e-003	3.0000e-005	3.0200e-003		2.6719	2.6719	2.5000e-004		2.6781
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0416	0.0278	0.2673	7.9000e-004	4.9442	5.8000e-004	4.9447	0.5058	5.3000e-004	0.5063		79.1132	79.1132	2.3800e-003		79.1727
Total	**0.0418**	**0.0367**	**0.2694**	**8.1000e-004**	**4.9733**	**6.1000e-004**	**4.9739**	**0.5088**	**5.6000e-004**	**0.5093**		**81.7851**	**81.7851**	**2.6300e-003**		**81.8508**

3.9 02 Access Road Construction/Refreshing - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0480	0.0000	0.0480	5.1800e-003	0.0000	5.1800e-003			0.0000			0.0000
Off-Road	1.3250	12.9684	7.4764	0.0195		0.5793	0.5793		0.5330	0.5330	0.0000	1,892.6562	1,892.6562	0.6121		1,907.9593
Total	**1.3250**	**12.9684**	**7.4764**	**0.0195**	**0.0480**	**0.5793**	**0.6273**	**5.1800e-003**	**0.5330**	**0.5381**	**0.0000**	**1,892.6562**	**1,892.6562**	**0.6121**		**1,907.9593**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.6000e-004	8.9400e-003	2.1400e-003	2.0000e-005	0.0291	3.0000e-005	0.0292	3.0000e-003	3.0000e-005	3.0200e-003		2.6719	2.6719	2.5000e-004		2.6781
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0416	0.0278	0.2673	7.9000e-004	4.9442	5.8000e-004	4.9447	0.5058	5.3000e-004	0.5063		79.1132	79.1132	2.3800e-003		79.1727
Total	**0.0418**	**0.0367**	**0.2694**	**8.1000e-004**	**4.9733**	**6.1000e-004**	**4.9739**	**0.5088**	**5.6000e-004**	**0.5093**		**81.7851**	**81.7851**	**2.6300e-003**		**81.8508**

3.10 03 Material Haul - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6250	7.0450	3.3901	7.6700e-003		0.3307	0.3307		0.3042	0.3042		742.8019	742.8019	0.2402		748.8078
Total	**0.6250**	**7.0450**	**3.3901**	**7.6700e-003**	**0.0000**	**0.3307**	**0.3307**	**0.0000**	**0.3042**	**0.3042**		**742.8019**	**742.8019**	**0.2402**		**748.8078**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0416	0.0278	0.2673	7.9000e-004	4.9442	5.8000e-004	4.9447	0.5058	5.3000e-004	0.5063		79.1132	79.1132	2.3800e-003		79.1727
Total	**0.0416**	**0.0278**	**0.2673**	**7.9000e-004**	**4.9442**	**5.8000e-004**	**4.9447**	**0.5058**	**5.3000e-004**	**0.5063**		**79.1132**	**79.1132**	**2.3800e-003**		**79.1727**

3.10 03 Material Haul - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6250	7.0450	3.3901	7.6700e-003		0.3307	0.3307		0.3042	0.3042	0.0000	742.8019	742.8019	0.2402		748.8078
Total	**0.6250**	**7.0450**	**3.3901**	**7.6700e-003**	**0.0000**	**0.3307**	**0.3307**	**0.0000**	**0.3042**	**0.3042**	**0.0000**	**742.8019**	**742.8019**	**0.2402**		**748.8078**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0416	0.0278	0.2673	7.9000e-004	4.9442	5.8000e-004	4.9447	0.5058	5.3000e-004	0.5063		79.1132	79.1132	2.3800e-003		79.1727
Total	**0.0416**	**0.0278**	**0.2673**	**7.9000e-004**	**4.9442**	**5.8000e-004**	**4.9447**	**0.5058**	**5.3000e-004**	**0.5063**		**79.1132**	**79.1132**	**2.3800e-003**		**79.1727**

3.11 04.1 Auger Holes, Direct Bury Poles - Seg 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.8200e-003	0.0000	6.8200e-003	7.4000e-004	0.0000	7.4000e-004			0.0000			0.0000
Off-Road	3.0035	28.3088	19.0510	0.0525		1.2097	1.2097		1.1248	1.1248		5,075.4727	5,075.4727	1.5492		5,114.2026
Total	**3.0035**	**28.3088**	**19.0510**	**0.0525**	**6.8200e-003**	**1.2097**	**1.2165**	**7.4000e-004**	**1.1248**	**1.1255**		**5,075.4727**	**5,075.4727**	**1.5492**		**5,114.2026**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.8000e-004	0.0201	4.8200e-003	5.0000e-005	0.0656	6.0000e-005	0.0656	6.7400e-003	6.0000e-005	6.8100e-003		6.0117	6.0117	5.6000e-004		6.0256
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	9.8883	1.1500e-003	9.8895	1.0116	1.0600e-003	1.0126		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.0837**	**0.0756**	**0.5393**	**1.6400e-003**	**9.9539**	**1.2100e-003**	**9.9551**	**1.0183**	**1.1200e-003**	**1.0194**		**164.2381**	**164.2381**	**5.3200e-003**		**164.3711**

3.11 04.1 Auger Holes, Direct Bury Poles - Seg 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.8200e-003	0.0000	6.8200e-003	7.4000e-004	0.0000	7.4000e-004			0.0000			0.0000
Off-Road	3.0035	28.3088	19.0510	0.0525		1.2097	1.2097		1.1248	1.1248	0.0000	5,075.4727	5,075.4727	1.5492		5,114.2026
Total	**3.0035**	**28.3088**	**19.0510**	**0.0525**	**6.8200e-003**	**1.2097**	**1.2165**	**7.4000e-004**	**1.1248**	**1.1255**	**0.0000**	**5,075.4727**	**5,075.4727**	**1.5492**		**5,114.2026**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.8000e-004	0.0201	4.8200e-003	5.0000e-005	0.0656	6.0000e-005	0.0656	6.7400e-003	6.0000e-005	6.8100e-003		6.0117	6.0117	5.6000e-004		6.0256
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	9.8883	1.1500e-003	9.8895	1.0116	1.0600e-003	1.0126		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.0837**	**0.0756**	**0.5393**	**1.6400e-003**	**9.9539**	**1.2100e-003**	**9.9551**	**1.0183**	**1.1200e-003**	**1.0194**		**164.2381**	**164.2381**	**5.3200e-003**		**164.3711**

3.12 05.1 Foundation Construction (Pier) - Seg 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3300e-003	0.0000	1.3300e-003	1.4000e-004	0.0000	1.4000e-004			0.0000			0.0000
Off-Road	1.2934	11.7070	10.1707	0.0213		0.5723	0.5723		0.5383	0.5383		2,054.1743	2,054.1743	0.5558		2,068.0692
Total	**1.2934**	**11.7070**	**10.1707**	**0.0213**	**1.3300e-003**	**0.5723**	**0.5736**	**1.4000e-004**	**0.5383**	**0.5384**		**2,054.1743**	**2,054.1743**	**0.5558**		**2,068.0692**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.4000e-004	0.0117	2.8100e-003	3.0000e-005	0.0382	4.0000e-005	0.0383	3.9300e-003	4.0000e-005	3.9700e-003		3.5068	3.5068	3.3000e-004		3.5149
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0416	0.0278	0.2673	7.9000e-004	4.9442	5.8000e-004	4.9447	0.5058	5.3000e-004	0.5063		79.1132	79.1132	2.3800e-003		79.1727
Total	**0.0419**	**0.0395**	**0.2701**	**8.2000e-004**	**4.9824**	**6.2000e-004**	**4.9830**	**0.5097**	**5.7000e-004**	**0.5103**		**82.6200**	**82.6200**	**2.7100e-003**		**82.6877**

3.12 05.1 Foundation Construction (Pier) - Seg 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3300e-003	0.0000	1.3300e-003	1.4000e-004	0.0000	1.4000e-004			0.0000			0.0000
Off-Road	1.2934	11.7070	10.1707	0.0213		0.5723	0.5723		0.5383	0.5383	0.0000	2,054.1743	2,054.1743	0.5558		2,068.0692
Total	**1.2934**	**11.7070**	**10.1707**	**0.0213**	**1.3300e-003**	**0.5723**	**0.5736**	**1.4000e-004**	**0.5383**	**0.5384**	**0.0000**	**2,054.1743**	**2,054.1743**	**0.5558**		**2,068.0692**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.4000e-004	0.0117	2.8100e-003	3.0000e-005	0.0382	4.0000e-005	0.0383	3.9300e-003	4.0000e-005	3.9700e-003		3.5068	3.5068	3.3000e-004		3.5149
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0416	0.0278	0.2673	7.9000e-004	4.9442	5.8000e-004	4.9447	0.5058	5.3000e-004	0.5063		79.1132	79.1132	2.3800e-003		79.1727
Total	**0.0419**	**0.0395**	**0.2701**	**8.2000e-004**	**4.9824**	**6.2000e-004**	**4.9830**	**0.5097**	**5.7000e-004**	**0.5103**		**82.6200**	**82.6200**	**2.7100e-003**		**82.6877**

3.13 11 AC Interference Mitigation System Installation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	3.4172	34.1305	22.9659	0.0689		1.3144	1.3144		1.2092	1.2092		6,670.3450	6,670.3450	2.1573		6,724.2781
Total	**3.4172**	**34.1305**	**22.9659**	**0.0689**	**0.0000**	**1.3144**	**1.3144**	**0.0000**	**1.2092**	**1.2092**		**6,670.3450**	**6,670.3450**	**2.1573**		**6,724.2781**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.1000e-004	3.6600e-003	8.8000e-004	1.0000e-005	2.3000e-004	1.0000e-005	2.4000e-004	6.0000e-005	1.0000e-005	7.0000e-005		1.0930	1.0930	1.0000e-004		1.0956
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0333	0.0222	0.2138	6.4000e-004	0.0657	4.6000e-004	0.0662	0.0174	4.2000e-004	0.0179		63.2906	63.2906	1.9100e-003		63.3382
Total	**0.0334**	**0.0259**	**0.2147**	**6.5000e-004**	**0.0660**	**4.7000e-004**	**0.0664**	**0.0175**	**4.3000e-004**	**0.0179**		**64.3836**	**64.3836**	**2.0100e-003**		**64.4338**

3.13 11 AC Interference Mitigation System Installation - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	3.4172	34.1305	22.9659	0.0689		1.3144	1.3144		1.2092	1.2092	0.0000	6,670.3450	6,670.3450	2.1573		6,724.2781
Total	**3.4172**	**34.1305**	**22.9659**	**0.0689**	**0.0000**	**1.3144**	**1.3144**	**0.0000**	**1.2092**	**1.2092**	**0.0000**	**6,670.3450**	**6,670.3450**	**2.1573**		**6,724.2781**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.1000e-004	3.6600e-003	8.8000e-004	1.0000e-005	2.3000e-004	1.0000e-005	2.4000e-004	6.0000e-005	1.0000e-005	7.0000e-005		1.0930	1.0930	1.0000e-004		1.0956
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0333	0.0222	0.2138	6.4000e-004	0.0657	4.6000e-004	0.0662	0.0174	4.2000e-004	0.0179		63.2906	63.2906	1.9100e-003		63.3382
Total	**0.0334**	**0.0259**	**0.2147**	**6.5000e-004**	**0.0660**	**4.7000e-004**	**0.0664**	**0.0175**	**4.3000e-004**	**0.0179**		**64.3836**	**64.3836**	**2.0100e-003**		**64.4338**

3.14 12.1 Micropile Foundation Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.6989	25.3353	16.9143	0.0433		1.1692	1.1692		1.1002	1.1002		4,172.2973	4,172.2973	1.1138		4,200.1411
Total	**2.6989**	**25.3353**	**16.9143**	**0.0433**	**0.0000**	**1.1692**	**1.1692**	**0.0000**	**1.1002**	**1.1002**		**4,172.2973**	**4,172.2973**	**1.1138**		**4,200.1411**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.1000e-004	7.2200e-003	1.7300e-003	2.0000e-005	4.5000e-004	2.0000e-005	4.7000e-004	1.2000e-004	2.0000e-005	1.5000e-004		2.1580	2.1580	2.0000e-004		2.1630
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	0.1643	1.1500e-003	0.1655	0.0436	1.0600e-003	0.0446		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.0833**	**0.0627**	**0.5362**	**1.6100e-003**	**0.1648**	**1.1700e-003**	**0.1659**	**0.0437**	**1.0800e-003**	**0.0448**		**160.3844**	**160.3844**	**4.9600e-003**		**160.5085**

3.14 12.1 Micropile Foundation Construction - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.6989	25.3353	16.9143	0.0433		1.1692	1.1692		1.1002	1.1002	0.0000	4,172.2973	4,172.2973	1.1138		4,200.1411
Total	**2.6989**	**25.3353**	**16.9143**	**0.0433**	**0.0000**	**1.1692**	**1.1692**	**0.0000**	**1.1002**	**1.1002**	**0.0000**	**4,172.2973**	**4,172.2973**	**1.1138**		**4,200.1411**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.1000e-004	7.2200e-003	1.7300e-003	2.0000e-005	4.5000e-004	2.0000e-005	4.7000e-004	1.2000e-004	2.0000e-005	1.5000e-004		2.1580	2.1580	2.0000e-004		2.1630
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	0.1643	1.1500e-003	0.1655	0.0436	1.0600e-003	0.0446		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.0833**	**0.0627**	**0.5362**	**1.6100e-003**	**0.1648**	**1.1700e-003**	**0.1659**	**0.0437**	**1.0800e-003**	**0.0448**		**160.3844**	**160.3844**	**4.9600e-003**		**160.5085**

3.15 04.2 Auger Holes, Direct Bury Poles - Seg 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3700e-003	0.0000	1.3700e-003	1.5000e-004	0.0000	1.5000e-004			0.0000			0.0000
Off-Road	3.0035	28.3088	19.0510	0.0525		1.2097	1.2097		1.1248	1.1248		5,075.4727	5,075.4727	1.5492		5,114.2026
Total	**3.0035**	**28.3088**	**19.0510**	**0.0525**	**1.3700e-003**	**1.2097**	**1.2111**	**1.5000e-004**	**1.1248**	**1.1249**		**5,075.4727**	**5,075.4727**	**1.5492**		**5,114.2026**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.6000e-004	9.0900e-003	2.1800e-003	2.0000e-005	0.0296	3.0000e-005	0.0296	3.0500e-003	3.0000e-005	3.0700e-003		2.7150	2.7150	2.5000e-004		2.7212
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	9.8883	1.1500e-003	9.8895	1.0116	1.0600e-003	1.0126		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.0834**	**0.0646**	**0.5367**	**1.6100e-003**	**9.9179**	**1.1800e-003**	**9.9191**	**1.0146**	**1.0900e-003**	**1.0157**		**160.9413**	**160.9413**	**5.0100e-003**		**161.0667**

3.15 04.2 Auger Holes, Direct Bury Poles - Seg 2 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3700e-003	0.0000	1.3700e-003	1.5000e-004	0.0000	1.5000e-004			0.0000			0.0000
Off-Road	3.0035	28.3088	19.0510	0.0525		1.2097	1.2097		1.1248	1.1248	0.0000	5,075.4727	5,075.4727	1.5492		5,114.2026
Total	**3.0035**	**28.3088**	**19.0510**	**0.0525**	**1.3700e-003**	**1.2097**	**1.2111**	**1.5000e-004**	**1.1248**	**1.1249**	**0.0000**	**5,075.4727**	**5,075.4727**	**1.5492**		**5,114.2026**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.6000e-004	9.0900e-003	2.1800e-003	2.0000e-005	0.0296	3.0000e-005	0.0296	3.0500e-003	3.0000e-005	3.0700e-003		2.7150	2.7150	2.5000e-004		2.7212
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	9.8883	1.1500e-003	9.8895	1.0116	1.0600e-003	1.0126		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.0834**	**0.0646**	**0.5367**	**1.6100e-003**	**9.9179**	**1.1800e-003**	**9.9191**	**1.0146**	**1.0900e-003**	**1.0157**		**160.9413**	**160.9413**	**5.0100e-003**		**161.0667**

3.16 06.1 Structure Installation and Assembly - Seg 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0110	0.0000	0.0110	1.1800e-003	0.0000	1.1800e-003			0.0000			0.0000
Off-Road	3.1076	28.3564	15.7325	0.0549		1.1048	1.1048		1.0164	1.0164		5,317.4604	5,317.4604	1.7198		5,360.4547
Total	**3.1076**	**28.3564**	**15.7325**	**0.0549**	**0.0110**	**1.1048**	**1.1158**	**1.1800e-003**	**1.0164**	**1.0176**		**5,317.4604**	**5,317.4604**	**1.7198**		**5,360.4547**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	9.8883	1.1500e-003	9.8895	1.0116	1.0600e-003	1.0126		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.0831**	**0.0555**	**0.5345**	**1.5900e-003**	**9.8883**	**1.1500e-003**	**9.8895**	**1.0116**	**1.0600e-003**	**1.0126**		**158.2264**	**158.2264**	**4.7600e-003**		**158.3455**

3.16 06.1 Structure Installation and Assembly - Seg 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0110	0.0000	0.0110	1.1800e-003	0.0000	1.1800e-003			0.0000			0.0000
Off-Road	3.1076	28.3564	15.7325	0.0549		1.1048	1.1048		1.0164	1.0164	0.0000	5,317.4604	5,317.4604	1.7198		5,360.4547
Total	**3.1076**	**28.3564**	**15.7325**	**0.0549**	**0.0110**	**1.1048**	**1.1158**	**1.1800e-003**	**1.0164**	**1.0176**	**0.0000**	**5,317.4604**	**5,317.4604**	**1.7198**		**5,360.4547**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	9.8883	1.1500e-003	9.8895	1.0116	1.0600e-003	1.0126		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.0831**	**0.0555**	**0.5345**	**1.5900e-003**	**9.8883**	**1.1500e-003**	**9.8895**	**1.0116**	**1.0600e-003**	**1.0126**		**158.2264**	**158.2264**	**4.7600e-003**		**158.3455**

3.17 10.1 Substation Work (San Marcos) below grade - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.7688	8.5937	4.1003	0.0144		0.3208	0.3208		0.2951	0.2951		1,398.4910	1,398.4910	0.4523		1,409.7985
Total	**0.7688**	**8.5937**	**4.1003**	**0.0144**	**0.0000**	**0.3208**	**0.3208**	**0.0000**	**0.2951**	**0.2951**		**1,398.4910**	**1,398.4910**	**0.4523**		**1,409.7985**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.4000e-004	0.0188	4.5000e-003	5.0000e-005	0.0992	6.0000e-005	0.0993	0.0101	6.0000e-005	0.0102		5.6109	5.6109	5.2000e-004		5.6239
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0333	0.0222	0.2138	6.4000e-004	6.4205	4.6000e-004	6.4210	0.6511	4.2000e-004	0.6516		63.2906	63.2906	1.9100e-003		63.3382
Total	**0.0338**	**0.0410**	**0.2183**	**6.9000e-004**	**6.5197**	**5.2000e-004**	**6.5203**	**0.6612**	**4.8000e-004**	**0.6617**		**68.9015**	**68.9015**	**2.4300e-003**		**68.9621**

3.17 10.1 Substation Work (San Marcos) below grade - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.7688	8.5937	4.1003	0.0144		0.3208	0.3208		0.2951	0.2951	0.0000	1,398.4910	1,398.4910	0.4523		1,409.7985
Total	**0.7688**	**8.5937**	**4.1003**	**0.0144**	**0.0000**	**0.3208**	**0.3208**	**0.0000**	**0.2951**	**0.2951**	**0.0000**	**1,398.4910**	**1,398.4910**	**0.4523**		**1,409.7985**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.4000e-004	0.0188	4.5000e-003	5.0000e-005	0.0992	6.0000e-005	0.0993	0.0101	6.0000e-005	0.0102		5.6109	5.6109	5.2000e-004		5.6239
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0333	0.0222	0.2138	6.4000e-004	6.4205	4.6000e-004	6.4210	0.6511	4.2000e-004	0.6516		63.2906	63.2906	1.9100e-003		63.3382
Total	**0.0338**	**0.0410**	**0.2183**	**6.9000e-004**	**6.5197**	**5.2000e-004**	**6.5203**	**0.6612**	**4.8000e-004**	**0.6617**		**68.9015**	**68.9015**	**2.4300e-003**		**68.9621**

3.18 08 Trenching for Installation of Undergound Cables - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.0800e-003	0.0000	1.0800e-003	1.2000e-004	0.0000	1.2000e-004			0.0000			0.0000
Off-Road	1.6350	16.2307	9.6153	0.0271		0.7245	0.7245		0.6665	0.6665		2,623.2328	2,623.2328	0.8484		2,644.4430
Total	**1.6350**	**16.2307**	**9.6153**	**0.0271**	**1.0800e-003**	**0.7245**	**0.7255**	**1.2000e-004**	**0.6665**	**0.6666**		**2,623.2328**	**2,623.2328**	**0.8484**		**2,644.4430**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0416	0.0278	0.2673	7.9000e-004	4.9442	5.8000e-004	4.9447	0.5058	5.3000e-004	0.5063		79.1132	79.1132	2.3800e-003		79.1727
Total	**0.0416**	**0.0278**	**0.2673**	**7.9000e-004**	**4.9442**	**5.8000e-004**	**4.9447**	**0.5058**	**5.3000e-004**	**0.5063**		**79.1132**	**79.1132**	**2.3800e-003**		**79.1727**

3.18 08 Trenching for Installation of Undergound Cables - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.0800e-003	0.0000	1.0800e-003	1.2000e-004	0.0000	1.2000e-004			0.0000			0.0000
Off-Road	1.6350	16.2307	9.6153	0.0271		0.7245	0.7245		0.6665	0.6665	0.0000	2,623.2328	2,623.2328	0.8484		2,644.4430
Total	**1.6350**	**16.2307**	**9.6153**	**0.0271**	**1.0800e-003**	**0.7245**	**0.7255**	**1.2000e-004**	**0.6665**	**0.6666**	**0.0000**	**2,623.2328**	**2,623.2328**	**0.8484**		**2,644.4430**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0416	0.0278	0.2673	7.9000e-004	4.9442	5.8000e-004	4.9447	0.5058	5.3000e-004	0.5063		79.1132	79.1132	2.3800e-003		79.1727
Total	**0.0416**	**0.0278**	**0.2673**	**7.9000e-004**	**4.9442**	**5.8000e-004**	**4.9447**	**0.5058**	**5.3000e-004**	**0.5063**		**79.1132**	**79.1132**	**2.3800e-003**		**79.1727**

3.19 10.2 Substation Work (San Marcos) above grade - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1471	10.6018	5.8220	0.0205		0.4096	0.4096		0.3769	0.3769		1,985.1659	1,985.1659	0.6420		2,001.2170
Total	**1.1471**	**10.6018**	**5.8220**	**0.0205**		**0.4096**	**0.4096**		**0.3769**	**0.3769**		**1,985.1659**	**1,985.1659**	**0.6420**		**2,001.2170**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.4000e-004	0.0188	4.5000e-003	5.0000e-005	0.0992	6.0000e-005	0.0993	0.0101	6.0000e-005	0.0102		5.6109	5.6109	5.2000e-004		5.6239
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1413	0.0944	0.9086	2.7000e-003	27.2872	1.9600e-003	27.2891	2.7674	1.8100e-003	2.7692		268.9849	268.9849	8.1000e-003		269.1873
Total	**0.1419**	**0.1132**	**0.9131**	**2.7500e-003**	**27.3864**	**2.0200e-003**	**27.3884**	**2.7775**	**1.8700e-003**	**2.7793**		**274.5958**	**274.5958**	**8.6200e-003**		**274.8112**

3.19 10.2 Substation Work (San Marcos) above grade - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1471	10.6018	5.8220	0.0205		0.4096	0.4096		0.3769	0.3769	0.0000	1,985.1659	1,985.1659	0.6420		2,001.2170
Total	**1.1471**	**10.6018**	**5.8220**	**0.0205**		**0.4096**	**0.4096**		**0.3769**	**0.3769**	**0.0000**	**1,985.1659**	**1,985.1659**	**0.6420**		**2,001.2170**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.4000e-004	0.0188	4.5000e-003	5.0000e-005	0.0992	6.0000e-005	0.0993	0.0101	6.0000e-005	0.0102		5.6109	5.6109	5.2000e-004		5.6239
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1413	0.0944	0.9086	2.7000e-003	27.2872	1.9600e-003	27.2891	2.7674	1.8100e-003	2.7692		268.9849	268.9849	8.1000e-003		269.1873
Total	**0.1419**	**0.1132**	**0.9131**	**2.7500e-003**	**27.3864**	**2.0200e-003**	**27.3884**	**2.7775**	**1.8700e-003**	**2.7793**		**274.5958**	**274.5958**	**8.6200e-003**		**274.8112**

3.20 05.2 Foundation Construction (Pier) - Seg 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0336	0.0000	0.0336	3.9900e-003	0.0000	3.9900e-003			0.0000			0.0000
Off-Road	1.2934	11.7070	10.1707	0.0213		0.5723	0.5723		0.5383	0.5383		2,054.1743	2,054.1743	0.5558		2,068.0692
Total	**1.2934**	**11.7070**	**10.1707**	**0.0213**	**0.0336**	**0.5723**	**0.6059**	**3.9900e-003**	**0.5383**	**0.5423**		**2,054.1743**	**2,054.1743**	**0.5558**		**2,068.0692**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0296	1.0278	0.2464	2.8100e-003	3.3495	3.3200e-003	3.3529	0.3446	3.1700e-003	0.3477		307.1423	307.1423	0.0285		307.8540
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0416	0.0278	0.2673	7.9000e-004	4.9442	5.8000e-004	4.9447	0.5058	5.3000e-004	0.5063		79.1132	79.1132	2.3800e-003		79.1727
Total	**0.0712**	**1.0556**	**0.5137**	**3.6000e-003**	**8.2937**	**3.9000e-003**	**8.2976**	**0.8503**	**3.7000e-003**	**0.8540**		**386.2555**	**386.2555**	**0.0309**		**387.0268**

3.20 05.2 Foundation Construction (Pier) - Seg 2 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0336	0.0000	0.0336	3.9900e-003	0.0000	3.9900e-003			0.0000			0.0000
Off-Road	1.2934	11.7070	10.1707	0.0213		0.5723	0.5723		0.5383	0.5383	0.0000	2,054.1743	2,054.1743	0.5558		2,068.0692
Total	**1.2934**	**11.7070**	**10.1707**	**0.0213**	**0.0336**	**0.5723**	**0.6059**	**3.9900e-003**	**0.5383**	**0.5423**	**0.0000**	**2,054.1743**	**2,054.1743**	**0.5558**		**2,068.0692**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0296	1.0278	0.2464	2.8100e-003	3.3495	3.3200e-003	3.3529	0.3446	3.1700e-003	0.3477		307.1423	307.1423	0.0285		307.8540
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0416	0.0278	0.2673	7.9000e-004	4.9442	5.8000e-004	4.9447	0.5058	5.3000e-004	0.5063		79.1132	79.1132	2.3800e-003		79.1727
Total	**0.0712**	**1.0556**	**0.5137**	**3.6000e-003**	**8.2937**	**3.9000e-003**	**8.2976**	**0.8503**	**3.7000e-003**	**0.8540**		**386.2555**	**386.2555**	**0.0309**		**387.0268**

3.21 04.3 Auger Holes, Direct Bury Poles - Seg 3 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3000e-003	0.0000	5.3000e-003	5.7000e-004	0.0000	5.7000e-004			0.0000			0.0000
Off-Road	3.0035	28.3088	19.0510	0.0525		1.2097	1.2097		1.1248	1.1248		5,075.4727	5,075.4727	1.5492		5,114.2026
Total	**3.0035**	**28.3088**	**19.0510**	**0.0525**	**5.3000e-003**	**1.2097**	**1.2150**	**5.7000e-004**	**1.1248**	**1.1253**		**5,075.4727**	**5,075.4727**	**1.5492**		**5,114.2026**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.0600e-003	0.1408	0.0338	3.8000e-004	0.4589	4.5000e-004	0.4594	0.0472	4.3000e-004	0.0476		42.0818	42.0818	3.9000e-003		42.1793
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	9.8883	1.1500e-003	9.8895	1.0116	1.0600e-003	1.0126		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.0872**	**0.1963**	**0.5683**	**1.9700e-003**	**10.3472**	**1.6000e-003**	**10.3489**	**1.0588**	**1.4900e-003**	**1.0603**		**200.3082**	**200.3082**	**8.6600e-003**		**200.5248**

3.21 04.3 Auger Holes, Direct Bury Poles - Seg 3 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3000e-003	0.0000	5.3000e-003	5.7000e-004	0.0000	5.7000e-004			0.0000			0.0000
Off-Road	3.0035	28.3088	19.0510	0.0525		1.2097	1.2097		1.1248	1.1248	0.0000	5,075.4727	5,075.4727	1.5492		5,114.2026
Total	**3.0035**	**28.3088**	**19.0510**	**0.0525**	**5.3000e-003**	**1.2097**	**1.2150**	**5.7000e-004**	**1.1248**	**1.1253**	**0.0000**	**5,075.4727**	**5,075.4727**	**1.5492**		**5,114.2026**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.0600e-003	0.1408	0.0338	3.8000e-004	0.4589	4.5000e-004	0.4594	0.0472	4.3000e-004	0.0476		42.0818	42.0818	3.9000e-003		42.1793
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	9.8883	1.1500e-003	9.8895	1.0116	1.0600e-003	1.0126		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.0872**	**0.1963**	**0.5683**	**1.9700e-003**	**10.3472**	**1.6000e-003**	**10.3489**	**1.0588**	**1.4900e-003**	**1.0603**		**200.3082**	**200.3082**	**8.6600e-003**		**200.5248**

3.22 06.2 Structure Installation and Assembly - Seg 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9800e-003	0.0000	9.9800e-003	1.0800e-003	0.0000	1.0800e-003			0.0000			0.0000
Off-Road	3.1076	28.3564	15.7325	0.0549		1.1048	1.1048		1.0164	1.0164		5,317.4604	5,317.4604	1.7198		5,360.4547
Total	**3.1076**	**28.3564**	**15.7325**	**0.0549**	**9.9800e-003**	**1.1048**	**1.1148**	**1.0800e-003**	**1.0164**	**1.0175**		**5,317.4604**	**5,317.4604**	**1.7198**		**5,360.4547**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.2000e-004	4.1400e-003	9.9000e-004	1.0000e-005	0.0135	1.0000e-005	0.0135	1.3900e-003	1.0000e-005	1.4000e-003		1.2377	1.2377	1.1000e-004		1.2406
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	9.8883	1.1500e-003	9.8895	1.0116	1.0600e-003	1.0126		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.0832**	**0.0597**	**0.5355**	**1.6000e-003**	**9.9018**	**1.1600e-003**	**9.9030**	**1.0130**	**1.0700e-003**	**1.0140**		**159.4641**	**159.4641**	**4.8700e-003**		**159.5861**

3.22 06.2 Structure Installation and Assembly - Seg 2 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9800e-003	0.0000	9.9800e-003	1.0800e-003	0.0000	1.0800e-003			0.0000			0.0000
Off-Road	3.1076	28.3564	15.7325	0.0549		1.1048	1.1048		1.0164	1.0164	0.0000	5,317.4604	5,317.4604	1.7198		5,360.4547
Total	**3.1076**	**28.3564**	**15.7325**	**0.0549**	**9.9800e-003**	**1.1048**	**1.1148**	**1.0800e-003**	**1.0164**	**1.0175**	**0.0000**	**5,317.4604**	**5,317.4604**	**1.7198**		**5,360.4547**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.2000e-004	4.1400e-003	9.9000e-004	1.0000e-005	0.0135	1.0000e-005	0.0135	1.3900e-003	1.0000e-005	1.4000e-003		1.2377	1.2377	1.1000e-004		1.2406
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	9.8883	1.1500e-003	9.8895	1.0116	1.0600e-003	1.0126		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.0832**	**0.0597**	**0.5355**	**1.6000e-003**	**9.9018**	**1.1600e-003**	**9.9030**	**1.0130**	**1.0700e-003**	**1.0140**		**159.4641**	**159.4641**	**4.8700e-003**		**159.5861**

3.23 07.1 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.8200e-003	0.0000	4.8200e-003	5.2000e-004	0.0000	5.2000e-004			0.0000			0.0000
Off-Road	2.6392	26.0468	15.1818	0.0494		1.0084	1.0084		0.9277	0.9277		4,786.9922	4,786.9922	1.5482		4,825.6975
Total	**2.6392**	**26.0468**	**15.1818**	**0.0494**	**4.8200e-003**	**1.0084**	**1.0132**	**5.2000e-004**	**0.9277**	**0.9283**		**4,786.9922**	**4,786.9922**	**1.5482**		**4,825.6975**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.5000e-004	5.1200e-003	1.2300e-003	1.0000e-005	0.0167	2.0000e-005	0.0167	1.7200e-003	2.0000e-005	1.7300e-003		1.5303	1.5303	1.4000e-004		1.5338
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	9.8883	1.1500e-003	9.8895	1.0116	1.0600e-003	1.0126		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.0833**	**0.0606**	**0.5357**	**1.6000e-003**	**9.9050**	**1.1700e-003**	**9.9062**	**1.0133**	**1.0800e-003**	**1.0144**		**159.7566**	**159.7566**	**4.9000e-003**		**159.8793**

3.23 07.1 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.8200e-003	0.0000	4.8200e-003	5.2000e-004	0.0000	5.2000e-004			0.0000			0.0000
Off-Road	2.6392	26.0468	15.1818	0.0494		1.0084	1.0084		0.9277	0.9277	0.0000	4,786.9922	4,786.9922	1.5482		4,825.6975
Total	**2.6392**	**26.0468**	**15.1818**	**0.0494**	**4.8200e-003**	**1.0084**	**1.0132**	**5.2000e-004**	**0.9277**	**0.9283**	**0.0000**	**4,786.9922**	**4,786.9922**	**1.5482**		**4,825.6975**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.5000e-004	5.1200e-003	1.2300e-003	1.0000e-005	0.0167	2.0000e-005	0.0167	1.7200e-003	2.0000e-005	1.7300e-003		1.5303	1.5303	1.4000e-004		1.5338
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	9.8883	1.1500e-003	9.8895	1.0116	1.0600e-003	1.0126		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.0833**	**0.0606**	**0.5357**	**1.6000e-003**	**9.9050**	**1.1700e-003**	**9.9062**	**1.0133**	**1.0800e-003**	**1.0144**		**159.7566**	**159.7566**	**4.9000e-003**		**159.8793**

3.24 12.2 Micropile Foundation Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.6989	25.3353	16.9143	0.0433		1.1692	1.1692		1.1002	1.1002		4,172.2973	4,172.2973	1.1138		4,200.1411
Total	**2.6989**	**25.3353**	**16.9143**	**0.0433**	**0.0000**	**1.1692**	**1.1692**	**0.0000**	**1.1002**	**1.1002**		**4,172.2973**	**4,172.2973**	**1.1138**		**4,200.1411**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.1000e-004	3.7600e-003	9.0000e-004	1.0000e-005	2.3000e-004	1.0000e-005	2.5000e-004	6.0000e-005	1.0000e-005	8.0000e-005		1.1222	1.1222	1.0000e-004		1.1248
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	0.1643	1.1500e-003	0.1655	0.0436	1.0600e-003	0.0446		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.0832**	**0.0593**	**0.5354**	**1.6000e-003**	**0.1645**	**1.1600e-003**	**0.1657**	**0.0436**	**1.0700e-003**	**0.0447**		**159.3486**	**159.3486**	**4.8600e-003**		**159.4703**

3.24 12.2 Micropile Foundation Construction - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.6989	25.3353	16.9143	0.0433		1.1692	1.1692		1.1002	1.1002	0.0000	4,172.2973	4,172.2973	1.1138		4,200.1411
Total	**2.6989**	**25.3353**	**16.9143**	**0.0433**	**0.0000**	**1.1692**	**1.1692**	**0.0000**	**1.1002**	**1.1002**	**0.0000**	**4,172.2973**	**4,172.2973**	**1.1138**		**4,200.1411**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.1000e-004	3.7600e-003	9.0000e-004	1.0000e-005	2.3000e-004	1.0000e-005	2.5000e-004	6.0000e-005	1.0000e-005	8.0000e-005		1.1222	1.1222	1.0000e-004		1.1248
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	0.1643	1.1500e-003	0.1655	0.0436	1.0600e-003	0.0446		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.0832**	**0.0593**	**0.5354**	**1.6000e-003**	**0.1645**	**1.1600e-003**	**0.1657**	**0.0436**	**1.0700e-003**	**0.0447**		**159.3486**	**159.3486**	**4.8600e-003**		**159.4703**

3.25 12.3 Micropile Foundation Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.6989	25.3353	16.9143	0.0433		1.1692	1.1692		1.1002	1.1002		4,172.2973	4,172.2973	1.1138		4,200.1411
Total	**2.6989**	**25.3353**	**16.9143**	**0.0433**	**0.0000**	**1.1692**	**1.1692**	**0.0000**	**1.1002**	**1.1002**		**4,172.2973**	**4,172.2973**	**1.1138**		**4,200.1411**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	7.4000e-004	0.0256	6.1400e-003	7.0000e-005	1.5900e-003	8.0000e-005	1.6700e-003	4.4000e-004	8.0000e-005	5.1000e-004		7.6512	7.6512	7.1000e-004		7.6690
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	0.1643	1.1500e-003	0.1655	0.0436	1.0600e-003	0.0446		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.0839**	**0.0811**	**0.5406**	**1.6600e-003**	**0.1659**	**1.2300e-003**	**0.1671**	**0.0440**	**1.1400e-003**	**0.0452**		**165.8776**	**165.8776**	**5.4700e-003**		**166.0145**

3.25 12.3 Micropile Foundation Construction - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.6989	25.3353	16.9143	0.0433		1.1692	1.1692		1.1002	1.1002	0.0000	4,172.2973	4,172.2973	1.1138		4,200.1411
Total	**2.6989**	**25.3353**	**16.9143**	**0.0433**	**0.0000**	**1.1692**	**1.1692**	**0.0000**	**1.1002**	**1.1002**	**0.0000**	**4,172.2973**	**4,172.2973**	**1.1138**		**4,200.1411**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	7.4000e-004	0.0256	6.1400e-003	7.0000e-005	1.5900e-003	8.0000e-005	1.6700e-003	4.4000e-004	8.0000e-005	5.1000e-004		7.6512	7.6512	7.1000e-004		7.6690
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	0.1643	1.1500e-003	0.1655	0.0436	1.0600e-003	0.0446		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.0839**	**0.0811**	**0.5406**	**1.6600e-003**	**0.1659**	**1.2300e-003**	**0.1671**	**0.0440**	**1.1400e-003**	**0.0452**		**165.8776**	**165.8776**	**5.4700e-003**		**166.0145**

3.26 05.3 Foundation Construction (Pier) - Seg 3 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0631	0.0000	0.0631	7.3300e-003	0.0000	7.3300e-003			0.0000			0.0000
Off-Road	1.2934	11.7070	10.1707	0.0213		0.5723	0.5723		0.5383	0.5383		2,054.1743	2,054.1743	0.5558		2,068.0692
Total	**1.2934**	**11.7070**	**10.1707**	**0.0213**	**0.0631**	**0.5723**	**0.6354**	**7.3300e-003**	**0.5383**	**0.5456**		**2,054.1743**	**2,054.1743**	**0.5558**		**2,068.0692**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0451	1.5619	0.3745	4.2700e-003	5.0899	5.0400e-003	5.0949	0.5236	4.8200e-003	0.5284		466.7251	466.7251	0.0433		467.8067
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0416	0.0278	0.2673	7.9000e-004	4.9442	5.8000e-004	4.9447	0.5058	5.3000e-004	0.5063		79.1132	79.1132	2.3800e-003		79.1727
Total	**0.0866**	**1.5896**	**0.6417**	**5.0600e-003**	**10.0340**	**5.6200e-003**	**10.0396**	**1.0294**	**5.3500e-003**	**1.0347**		**545.8383**	**545.8383**	**0.0456**		**546.9794**

3.26 05.3 Foundation Construction (Pier) - Seg 3 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0631	0.0000	0.0631	7.3300e-003	0.0000	7.3300e-003			0.0000			0.0000
Off-Road	1.2934	11.7070	10.1707	0.0213		0.5723	0.5723		0.5383	0.5383	0.0000	2,054.1743	2,054.1743	0.5558		2,068.0692
Total	**1.2934**	**11.7070**	**10.1707**	**0.0213**	**0.0631**	**0.5723**	**0.6354**	**7.3300e-003**	**0.5383**	**0.5456**	**0.0000**	**2,054.1743**	**2,054.1743**	**0.5558**		**2,068.0692**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0451	1.5619	0.3745	4.2700e-003	5.0899	5.0400e-003	5.0949	0.5236	4.8200e-003	0.5284		466.7251	466.7251	0.0433		467.8067
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0416	0.0278	0.2673	7.9000e-004	4.9442	5.8000e-004	4.9447	0.5058	5.3000e-004	0.5063		79.1132	79.1132	2.3800e-003		79.1727
Total	**0.0866**	**1.5896**	**0.6417**	**5.0600e-003**	**10.0340**	**5.6200e-003**	**10.0396**	**1.0294**	**5.3500e-003**	**1.0347**		**545.8383**	**545.8383**	**0.0456**		**546.9794**

3.27 06.3 Structure Installation and Assembly - Seg 3 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0189	0.0000	0.0189	2.0400e-003	0.0000	2.0400e-003			0.0000			0.0000
Off-Road	3.1076	28.3564	15.7325	0.0549		1.1048	1.1048		1.0164	1.0164		5,317.4604	5,317.4604	1.7198		5,360.4547
Total	**3.1076**	**28.3564**	**15.7325**	**0.0549**	**0.0189**	**1.1048**	**1.1237**	**2.0400e-003**	**1.0164**	**1.0185**		**5,317.4604**	**5,317.4604**	**1.7198**		**5,360.4547**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.5000e-004	0.0157	3.7500e-003	4.0000e-005	0.0510	5.0000e-005	0.0510	5.2500e-003	5.0000e-005	5.2900e-003		4.6758	4.6758	4.3000e-004		4.6866
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	9.8883	1.1500e-003	9.8895	1.0116	1.0600e-003	1.0126		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.0836**	**0.0712**	**0.5382**	**1.6300e-003**	**9.9393**	**1.2000e-003**	**9.9405**	**1.0168**	**1.1100e-003**	**1.0179**		**162.9021**	**162.9021**	**5.1900e-003**		**163.0321**

3.27 06.3 Structure Installation and Assembly - Seg 3 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0189	0.0000	0.0189	2.0400e-003	0.0000	2.0400e-003			0.0000			0.0000
Off-Road	3.1076	28.3564	15.7325	0.0549		1.1048	1.1048		1.0164	1.0164	0.0000	5,317.4604	5,317.4604	1.7198		5,360.4547
Total	**3.1076**	**28.3564**	**15.7325**	**0.0549**	**0.0189**	**1.1048**	**1.1237**	**2.0400e-003**	**1.0164**	**1.0185**	**0.0000**	**5,317.4604**	**5,317.4604**	**1.7198**		**5,360.4547**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.5000e-004	0.0157	3.7500e-003	4.0000e-005	0.0510	5.0000e-005	0.0510	5.2500e-003	5.0000e-005	5.2900e-003		4.6758	4.6758	4.3000e-004		4.6866
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	9.8883	1.1500e-003	9.8895	1.0116	1.0600e-003	1.0126		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.0836**	**0.0712**	**0.5382**	**1.6300e-003**	**9.9393**	**1.2000e-003**	**9.9405**	**1.0168**	**1.1100e-003**	**1.0179**		**162.9021**	**162.9021**	**5.1900e-003**		**163.0321**

3.28 10.3 Substation Work (Escondido) below grade - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.7688	8.5937	4.1003	0.0144		0.3208	0.3208		0.2951	0.2951		1,398.4910	1,398.4910	0.4523		1,409.7985
Total	**0.7688**	**8.5937**	**4.1003**	**0.0144**	**0.0000**	**0.3208**	**0.3208**	**0.0000**	**0.2951**	**0.2951**		**1,398.4910**	**1,398.4910**	**0.4523**		**1,409.7985**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.4000e-004	0.0188	4.5000e-003	5.0000e-005	0.0992	6.0000e-005	0.0993	0.0101	6.0000e-005	0.0102		5.6109	5.6109	5.2000e-004		5.6239
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0333	0.0222	0.2138	6.4000e-004	6.4205	4.6000e-004	6.4210	0.6511	4.2000e-004	0.6516		63.2906	63.2906	1.9100e-003		63.3382
Total	**0.0338**	**0.0410**	**0.2183**	**6.9000e-004**	**6.5197**	**5.2000e-004**	**6.5203**	**0.6612**	**4.8000e-004**	**0.6617**		**68.9015**	**68.9015**	**2.4300e-003**		**68.9621**

3.28 10.3 Substation Work (Escondido) below grade - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.7688	8.5937	4.1003	0.0144		0.3208	0.3208		0.2951	0.2951	0.0000	1,398.4910	1,398.4910	0.4523		1,409.7985
Total	**0.7688**	**8.5937**	**4.1003**	**0.0144**	**0.0000**	**0.3208**	**0.3208**	**0.0000**	**0.2951**	**0.2951**	**0.0000**	**1,398.4910**	**1,398.4910**	**0.4523**		**1,409.7985**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.4000e-004	0.0188	4.5000e-003	5.0000e-005	0.0992	6.0000e-005	0.0993	0.0101	6.0000e-005	0.0102		5.6109	5.6109	5.2000e-004		5.6239
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0333	0.0222	0.2138	6.4000e-004	6.4205	4.6000e-004	6.4210	0.6511	4.2000e-004	0.6516		63.2906	63.2906	1.9100e-003		63.3382
Total	**0.0338**	**0.0410**	**0.2183**	**6.9000e-004**	**6.5197**	**5.2000e-004**	**6.5203**	**0.6612**	**4.8000e-004**	**0.6617**		**68.9015**	**68.9015**	**2.4300e-003**		**68.9621**

3.29 10.4 Substation Work (Escondido) above grade - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1510	10.5024	5.8268	0.0203		0.4092	0.4092		0.3765	0.3765		1,969.4298	1,969.4298	0.6370		1,985.3536
Total	**1.1510**	**10.5024**	**5.8268**	**0.0203**		**0.4092**	**0.4092**		**0.3765**	**0.3765**		**1,969.4298**	**1,969.4298**	**0.6370**		**1,985.3536**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.4000e-004	0.0188	4.5000e-003	5.0000e-005	0.0992	6.0000e-005	0.0993	0.0101	6.0000e-005	0.0102		5.6109	5.6109	5.2000e-004		5.6239
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1413	0.0944	0.9086	2.7000e-003	27.2872	1.9600e-003	27.2891	2.7674	1.8100e-003	2.7692		268.9849	268.9849	8.1000e-003		269.1873
Total	**0.1419**	**0.1132**	**0.9131**	**2.7500e-003**	**27.3864**	**2.0200e-003**	**27.3884**	**2.7775**	**1.8700e-003**	**2.7793**		**274.5958**	**274.5958**	**8.6200e-003**		**274.8112**

3.29 10.4 Substation Work (Escondido) above grade - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1510	10.5024	5.8268	0.0203		0.4092	0.4092		0.3765	0.3765	0.0000	1,969.4298	1,969.4298	0.6370		1,985.3536
Total	**1.1510**	**10.5024**	**5.8268**	**0.0203**		**0.4092**	**0.4092**		**0.3765**	**0.3765**	**0.0000**	**1,969.4298**	**1,969.4298**	**0.6370**		**1,985.3536**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.4000e-004	0.0188	4.5000e-003	5.0000e-005	0.0992	6.0000e-005	0.0993	0.0101	6.0000e-005	0.0102		5.6109	5.6109	5.2000e-004		5.6239
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1413	0.0944	0.9086	2.7000e-003	27.2872	1.9600e-003	27.2891	2.7674	1.8100e-003	2.7692		268.9849	268.9849	8.1000e-003		269.1873
Total	**0.1419**	**0.1132**	**0.9131**	**2.7500e-003**	**27.3864**	**2.0200e-003**	**27.3884**	**2.7775**	**1.8700e-003**	**2.7793**		**274.5958**	**274.5958**	**8.6200e-003**		**274.8112**

3.30 07.2 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0244	0.0000	0.0244	2.6400e-003	0.0000	2.6400e-003			0.0000			0.0000
Off-Road	2.6392	26.0468	15.1818	0.0494		1.0084	1.0084		0.9277	0.9277		4,786.9922	4,786.9922	1.5482		4,825.6975
Total	**2.6392**	**26.0468**	**15.1818**	**0.0494**	**0.0244**	**1.0084**	**1.0328**	**2.6400e-003**	**0.9277**	**0.9304**		**4,786.9922**	**4,786.9922**	**1.5482**		**4,825.6975**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.9000e-004	0.0171	4.0900e-003	5.0000e-005	0.0556	6.0000e-005	0.0557	5.7200e-003	5.0000e-005	5.7700e-003		5.1008	5.1008	4.7000e-004		5.1126
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	9.8883	1.1500e-003	9.8895	1.0116	1.0600e-003	1.0126		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.0836**	**0.0726**	**0.5386**	**1.6400e-003**	**9.9439**	**1.2100e-003**	**9.9452**	**1.0173**	**1.1100e-003**	**1.0184**		**163.3272**	**163.3272**	**5.2300e-003**		**163.4581**

3.30 07.2 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 2 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0244	0.0000	0.0244	2.6400e-003	0.0000	2.6400e-003			0.0000			0.0000
Off-Road	2.6392	26.0468	15.1818	0.0494		1.0084	1.0084		0.9277	0.9277	0.0000	4,786.9922	4,786.9922	1.5482		4,825.6975
Total	**2.6392**	**26.0468**	**15.1818**	**0.0494**	**0.0244**	**1.0084**	**1.0328**	**2.6400e-003**	**0.9277**	**0.9304**	**0.0000**	**4,786.9922**	**4,786.9922**	**1.5482**		**4,825.6975**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.9000e-004	0.0171	4.0900e-003	5.0000e-005	0.0556	6.0000e-005	0.0557	5.7200e-003	5.0000e-005	5.7700e-003		5.1008	5.1008	4.7000e-004		5.1126
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	9.8883	1.1500e-003	9.8895	1.0116	1.0600e-003	1.0126		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.0836**	**0.0726**	**0.5386**	**1.6400e-003**	**9.9439**	**1.2100e-003**	**9.9452**	**1.0173**	**1.1100e-003**	**1.0184**		**163.3272**	**163.3272**	**5.2300e-003**		**163.4581**

3.31 09.1 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 1 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.1160	20.0741	13.5649	0.0337		0.9143	0.9143		0.8411	0.8411		3,259.8302	3,259.8302	1.0543		3,286.1876
Total	**2.1160**	**20.0741**	**13.5649**	**0.0337**	**0.0000**	**0.9143**	**0.9143**	**0.0000**	**0.8411**	**0.8411**		**3,259.8302**	**3,259.8302**	**1.0543**		**3,286.1876**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.4000e-004	8.2800e-003	1.9900e-003	2.0000e-005	0.0270	3.0000e-005	0.0270	2.7800e-003	3.0000e-005	2.8000e-003		2.4754	2.4754	2.3000e-004		2.4811
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	9.8883	1.1500e-003	9.8895	1.0116	1.0600e-003	1.0126		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.0834**	**0.0638**	**0.5365**	**1.6100e-003**	**9.9153**	**1.1800e-003**	**9.9165**	**1.0143**	**1.0900e-003**	**1.0154**		**160.7018**	**160.7018**	**4.9900e-003**		**160.8266**

3.31 09.1 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 1 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.1160	20.0741	13.5649	0.0337		0.9143	0.9143		0.8411	0.8411	0.0000	3,259.8302	3,259.8302	1.0543		3,286.1876
Total	**2.1160**	**20.0741**	**13.5649**	**0.0337**	**0.0000**	**0.9143**	**0.9143**	**0.0000**	**0.8411**	**0.8411**	**0.0000**	**3,259.8302**	**3,259.8302**	**1.0543**		**3,286.1876**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.4000e-004	8.2800e-003	1.9900e-003	2.0000e-005	0.0270	3.0000e-005	0.0270	2.7800e-003	3.0000e-005	2.8000e-003		2.4754	2.4754	2.3000e-004		2.4811
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	9.8883	1.1500e-003	9.8895	1.0116	1.0600e-003	1.0126		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.0834**	**0.0638**	**0.5365**	**1.6100e-003**	**9.9153**	**1.1800e-003**	**9.9165**	**1.0143**	**1.0900e-003**	**1.0154**		**160.7018**	**160.7018**	**4.9900e-003**		**160.8266**

3.32 07.3 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 3 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.3900e-003	0.0000	7.3900e-003	8.0000e-004	0.0000	8.0000e-004			0.0000			0.0000
Off-Road	2.6392	26.0468	15.1818	0.0494		1.0084	1.0084		0.9277	0.9277		4,786.9922	4,786.9922	1.5482		4,825.6975
Total	**2.6392**	**26.0468**	**15.1818**	**0.0494**	**7.3900e-003**	**1.0084**	**1.0158**	**8.0000e-004**	**0.9277**	**0.9285**		**4,786.9922**	**4,786.9922**	**1.5482**		**4,825.6975**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.5000e-004	8.5300e-003	2.0500e-003	2.0000e-005	0.0278	3.0000e-005	0.0278	2.8600e-003	3.0000e-005	2.8900e-003		2.5504	2.5504	2.4000e-004		2.5563
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	9.8883	1.1500e-003	9.8895	1.0116	1.0600e-003	1.0126		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.0834**	**0.0641**	**0.5365**	**1.6100e-003**	**9.9161**	**1.1800e-003**	**9.9173**	**1.0144**	**1.0900e-003**	**1.0155**		**160.7768**	**160.7768**	**5.0000e-003**		**160.9018**

3.32 07.3 Stringing Activities/Transfer Conductor/Sagging Activities - Seg 3 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.3900e-003	0.0000	7.3900e-003	8.0000e-004	0.0000	8.0000e-004			0.0000			0.0000
Off-Road	2.6392	26.0468	15.1818	0.0494		1.0084	1.0084		0.9277	0.9277	0.0000	4,786.9922	4,786.9922	1.5482		4,825.6975
Total	**2.6392**	**26.0468**	**15.1818**	**0.0494**	**7.3900e-003**	**1.0084**	**1.0158**	**8.0000e-004**	**0.9277**	**0.9285**	**0.0000**	**4,786.9922**	**4,786.9922**	**1.5482**		**4,825.6975**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.5000e-004	8.5300e-003	2.0500e-003	2.0000e-005	0.0278	3.0000e-005	0.0278	2.8600e-003	3.0000e-005	2.8900e-003		2.5504	2.5504	2.4000e-004		2.5563
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	9.8883	1.1500e-003	9.8895	1.0116	1.0600e-003	1.0126		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.0834**	**0.0641**	**0.5365**	**1.6100e-003**	**9.9161**	**1.1800e-003**	**9.9173**	**1.0144**	**1.0900e-003**	**1.0155**		**160.7768**	**160.7768**	**5.0000e-003**		**160.9018**

3.33 09.3 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 3 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.1160	20.0741	13.5649	0.0337		0.9143	0.9143		0.8411	0.8411		3,259.8302	3,259.8302	1.0543		3,286.1876
Total	**2.1160**	**20.0741**	**13.5649**	**0.0337**	**0.0000**	**0.9143**	**0.9143**	**0.0000**	**0.8411**	**0.8411**		**3,259.8302**	**3,259.8302**	**1.0543**		**3,286.1876**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.8000e-004	6.2600e-003	1.5000e-003	2.0000e-005	0.0204	2.0000e-005	0.0204	2.1000e-003	2.0000e-005	2.1200e-003		1.8703	1.8703	1.7000e-004		1.8746
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	9.8883	1.1500e-003	9.8895	1.0116	1.0600e-003	1.0126		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.0833**	**0.0618**	**0.5360**	**1.6100e-003**	**9.9087**	**1.1700e-003**	**9.9099**	**1.0137**	**1.0800e-003**	**1.0147**		**160.0967**	**160.0967**	**4.9300e-003**		**160.2201**

3.33 09.3 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 3 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.1160	20.0741	13.5649	0.0337		0.9143	0.9143		0.8411	0.8411	0.0000	3,259.8302	3,259.8302	1.0543		3,286.1876
Total	**2.1160**	**20.0741**	**13.5649**	**0.0337**	**0.0000**	**0.9143**	**0.9143**	**0.0000**	**0.8411**	**0.8411**	**0.0000**	**3,259.8302**	**3,259.8302**	**1.0543**		**3,286.1876**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.8000e-004	6.2600e-003	1.5000e-003	2.0000e-005	0.0204	2.0000e-005	0.0204	2.1000e-003	2.0000e-005	2.1200e-003		1.8703	1.8703	1.7000e-004		1.8746
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	9.8883	1.1500e-003	9.8895	1.0116	1.0600e-003	1.0126		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.0833**	**0.0618**	**0.5360**	**1.6100e-003**	**9.9087**	**1.1700e-003**	**9.9099**	**1.0137**	**1.0800e-003**	**1.0147**		**160.0967**	**160.0967**	**4.9300e-003**		**160.2201**

3.34 09.2 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.1160	20.0741	13.5649	0.0337		0.9143	0.9143		0.8411	0.8411		3,259.8302	3,259.8302	1.0543		3,286.1876
Total	**2.1160**	**20.0741**	**13.5649**	**0.0337**	**0.0000**	**0.9143**	**0.9143**	**0.0000**	**0.8411**	**0.8411**		**3,259.8302**	**3,259.8302**	**1.0543**		**3,286.1876**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.5000e-004	8.5300e-003	2.0500e-003	2.0000e-005	0.0278	3.0000e-005	0.0278	2.8600e-003	3.0000e-005	2.8900e-003		2.5504	2.5504	2.4000e-004		2.5563
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	9.8883	1.1500e-003	9.8895	1.0116	1.0600e-003	1.0126		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.0834**	**0.0641**	**0.5365**	**1.6100e-003**	**9.9161**	**1.1800e-003**	**9.9173**	**1.0144**	**1.0900e-003**	**1.0155**		**160.7768**	**160.7768**	**5.0000e-003**		**160.9018**

3.34 09.2 Demobilization/ROW Restoration and Cleanup/Road Refreshing - Seg 2 - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.1160	20.0741	13.5649	0.0337		0.9143	0.9143		0.8411	0.8411	0.0000	3,259.8302	3,259.8302	1.0543		3,286.1876
Total	**2.1160**	**20.0741**	**13.5649**	**0.0337**	**0.0000**	**0.9143**	**0.9143**	**0.0000**	**0.8411**	**0.8411**	**0.0000**	**3,259.8302**	**3,259.8302**	**1.0543**		**3,286.1876**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.5000e-004	8.5300e-003	2.0500e-003	2.0000e-005	0.0278	3.0000e-005	0.0278	2.8600e-003	3.0000e-005	2.8900e-003		2.5504	2.5504	2.4000e-004		2.5563
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.0555	0.5345	1.5900e-003	9.8883	1.1500e-003	9.8895	1.0116	1.0600e-003	1.0126		158.2264	158.2264	4.7600e-003		158.3455
Total	**0.0834**	**0.0641**	**0.5365**	**1.6100e-003**	**9.9161**	**1.1800e-003**	**9.9173**	**1.0144**	**1.0900e-003**	**1.0155**		**160.7768**	**160.7768**	**5.0000e-003**		**160.9018**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Helicopter Criteria Pollutant and GHG calculations

Assumptions and Variables

Constant		*value*	*units*	*source*		
Total running time		24	poles			
		10.0	minutes per pole			
		240	minutes of work per day			
		2	days of work			
		480	total minutes of work			
Fraction of time in idle		0.1				
Fraction of time in Climbout/Approach		0.9				
Jet Fuel Density (at 15 degrees C) -- equiv. to 820 km/m3		6.84	lbs/gallon	air BP Handbook of Products, page 11 (Jet A fuel)		
GHGs for Jet Fuel:						
	CO2	9.75	kg per gallon	The Climate Registry 2017 Default Emission Factors (Table 13.1 - US Default CO2 Emission Factors for Transport Fuels)	convert to kg/gallon for calcs	
	CH4	0	g per gallon	The Climate Registry 2017 Default Emission Factors (Table 13.7 - US Default CH4 and N2O Emission Factors for Non-Highway Vehicles)	0 kg per gallon	
	N2O	0.31	g per gallon	The Climate Registry 2017 Default Emission Factors (Table 13.7 - US Default CH4 and N2O Emission Factors for Non-Highway Vehicles)	0.00031 kg per gallon	
Global Warming Potential of GHGs						
		1	CO2	IPCC, Fourth Assessment Report, 2007		
		25	CH4	IPCC, Fourth Assessment Report, 2007		
		298	N2O	IPCC, Fourth Assessment Report, 2007		
Jet Fuel Usage - Idle		142	lbs/hr	EPA, Air Pollutant Emission Factors for Military and Civili Aircraft,1978		
Jet Fuel Usage - Climbout/Approach		679	lbs/hr	EPA, Air Pollutant Emission Factors for Military and Civili Aircraft,1978		
PM2.5 fraction of PM10		0.991	for Jet Fuel	County of San Diego		
Conversions		0.001	kg to metric ton			
		0.001	g to kg			

Emission Calculations

Criteria Pollutants

					Emission Factors (lbs/hr)					Emissions (lbs/day)					
Mode	**Fraction of time in mode**	**total operating minutes per day**	**Daily Minutes in Mode**	**Daily Hours in Mode**	**ROG**	**NOx**	**CO**	**SOx**	**PM**	**ROG**	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
idle	0.1	240	24	0.4	9	0.2	4.2	0.14	0.1	3.6	0.08	1.68	0.056	0.04	0.03964
app/climb	0.9		216	3.6	0.2	5	2	0.68	0.8	0.72	18	7.2	2.448	2.88	2.85408
total	1		240	4						4.32	18.08	8.88	2.504	2.92	2.89372

Greenhouse Gases

							Emission Factor (kg per gallon)			Emissions (kg per year)			Emissions (metric tons per year)			
Mode	**Fraction of time in mode**	**Jet Fuel Usage (lbs/hr)**	**Jet Fuel Usage (adjusted to gal/hr)**	**Total Minutes of Use**	**Total Hours of Use in Mode**	**Total Fuel Used (gallons)**	**CO2**	**CH4**	**N2O**	**CO2**	**CH4**	**N2O**	**CO2**	**CH4**	**N2O**	**CO2e**
idle	0.1	142	20.76	48	0.8	16.60818713	9.75	0	0.00031	161.9298	0	0.005149	0.16193	0	5.15E-06	0.163464
app/climb	0.9	679	99.27	432	7.2	714.7368421	9.75	0	0.00031	6968.684	0	0.221568	6.968684	0	0.000222	7.034712
total	1.00		120.03	480.00	8	731.35				7130.614	0	0.226717	7.130614	0	0.000227	**7.198 Total GHGs**

C.2 Fuel Use Estimates

San Marcos-Escondido TL 6975 69kV Project Fuel Use

CO_2 emissions from AQ Calculations:

Conversion	1 MT =	1000	kg

Diesel Sources	CO_2 Emissions	
Off road equipment	1725.0758	MT
Haul trucks	17.24	MT
TOTAL Diesel Sources =	**1742.32**	**MT**
Convert to kilograms	1.74E+06	kg

Diesel fuel combustion[a] = 10.21 kg CO2/gallon

Diesel Consumption = 170647.99 gallons (over approx. 10 month construction period)

Gasoline Sources	CO_2 Emissions	
Construction workers	59.7926	MT
Convert to kilograms	5.98E+04	kg

Gasoline fuel combustion[a] = 8.78 kg CO2/gallon

Gasoline consumption = 6810.09 gallons (over approx. 10 month construction period)

Jet Fuel Sources	CO_2 Emissions	
Helicopter	7.130614	MT
Convert to kilograms	7.13E+03	kg

Jet fuel combustion[a] = 9.75 kg CO2/gallon

Jet fuel consumption = 731.35 gallons (over approx. 10 month construction period)

Notes:

[a] Emissions factors per The Climate Registry 2017 Default Emission Factors (Table 13.1 - US Default CO_2 Emission Factors for Transport Fuels)

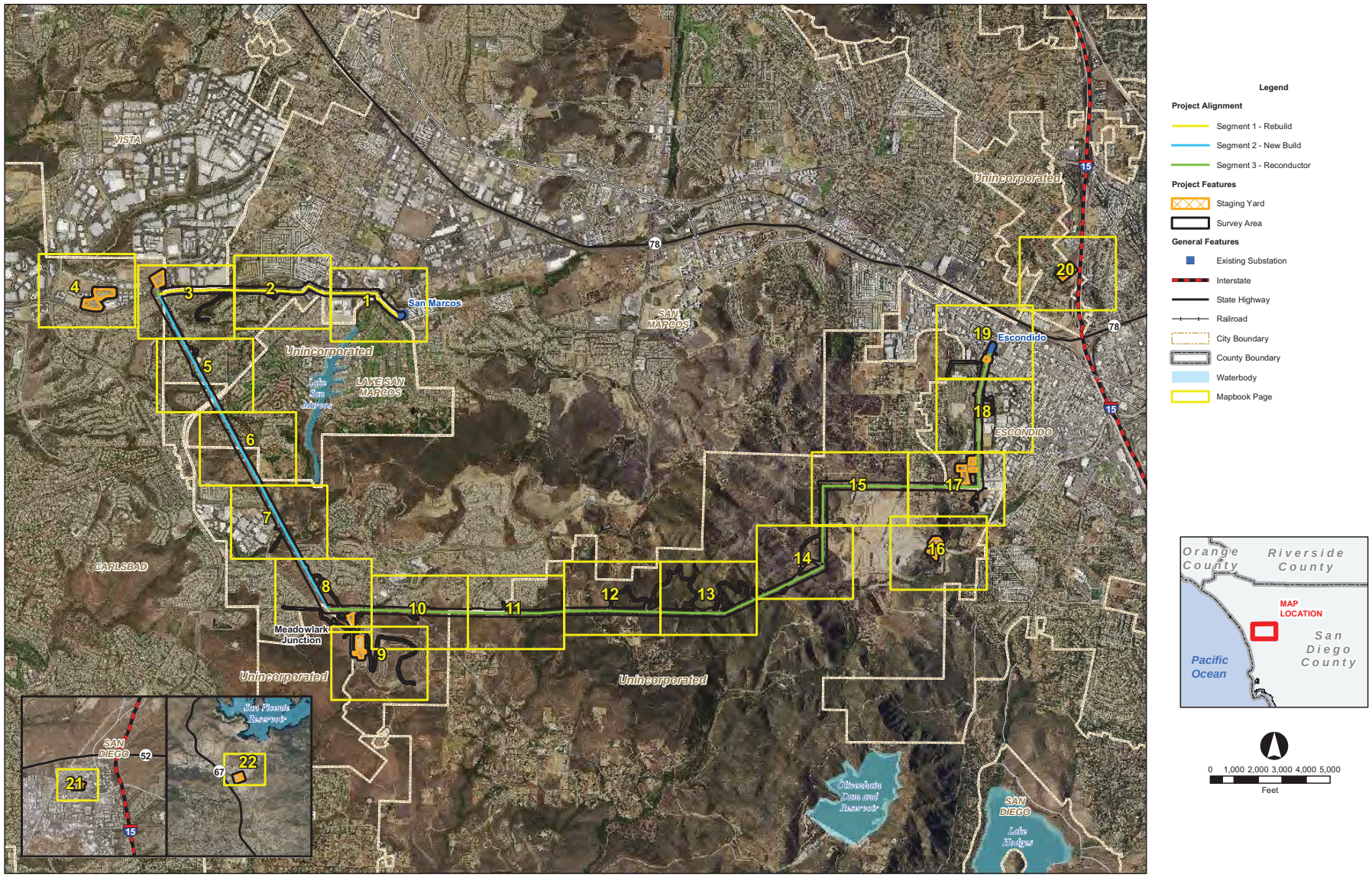
Appendix D
Biological Resources

D.1 Vegetation Community Maps

D.2 Biological Technical Report

D.3 1995 Subregional NCCP

D.1 Vegetation Community Maps



D120812.05 - CPUC SDGE TL6975/05 Graphics-GIS-Modeling/Illustrator

SOURCE: SDG&E, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.4-1
Vegetation Communities

ESA

SOURCE: SDG&E, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.4-1.1
Vegetation Communities

ESA

D120812.05 - CPUC SDGE TL6975/05 Graphics-GIS-Modeling/Illustrator

SOURCE: SDG&E, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.4-1.2
Vegetation Communities

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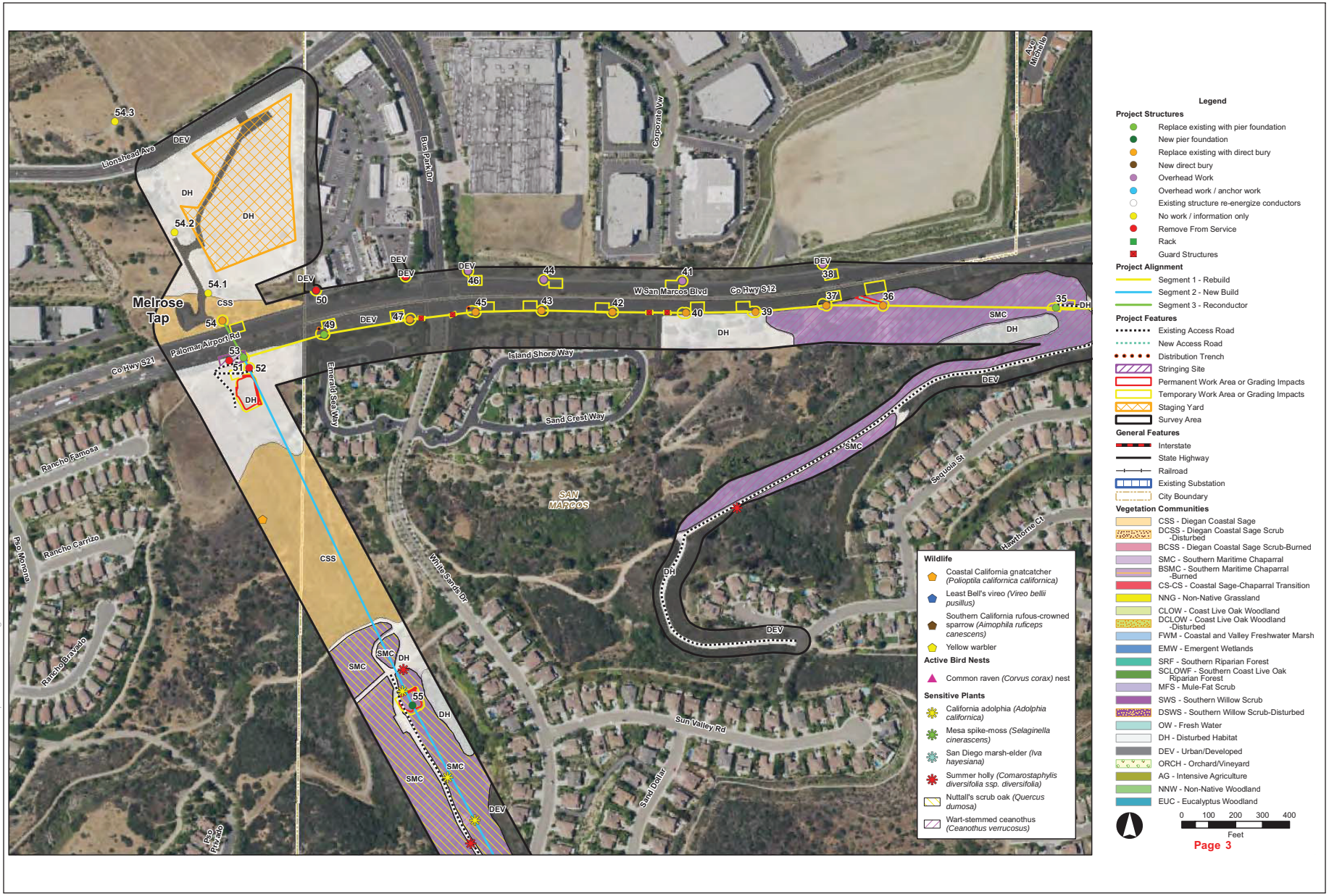

D120812.05 - CPUC SDGE TL6975/05 Graphics-GIS-Modeling/Illustrator

SOURCE: SDG&E, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.4-1.3
Vegetation Communities

ESA

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SOURCE: SDG&E, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.4-1.4
Vegetation Communities

ESA

SOURCE: SDG&E, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.4-1.5
Vegetation Communities

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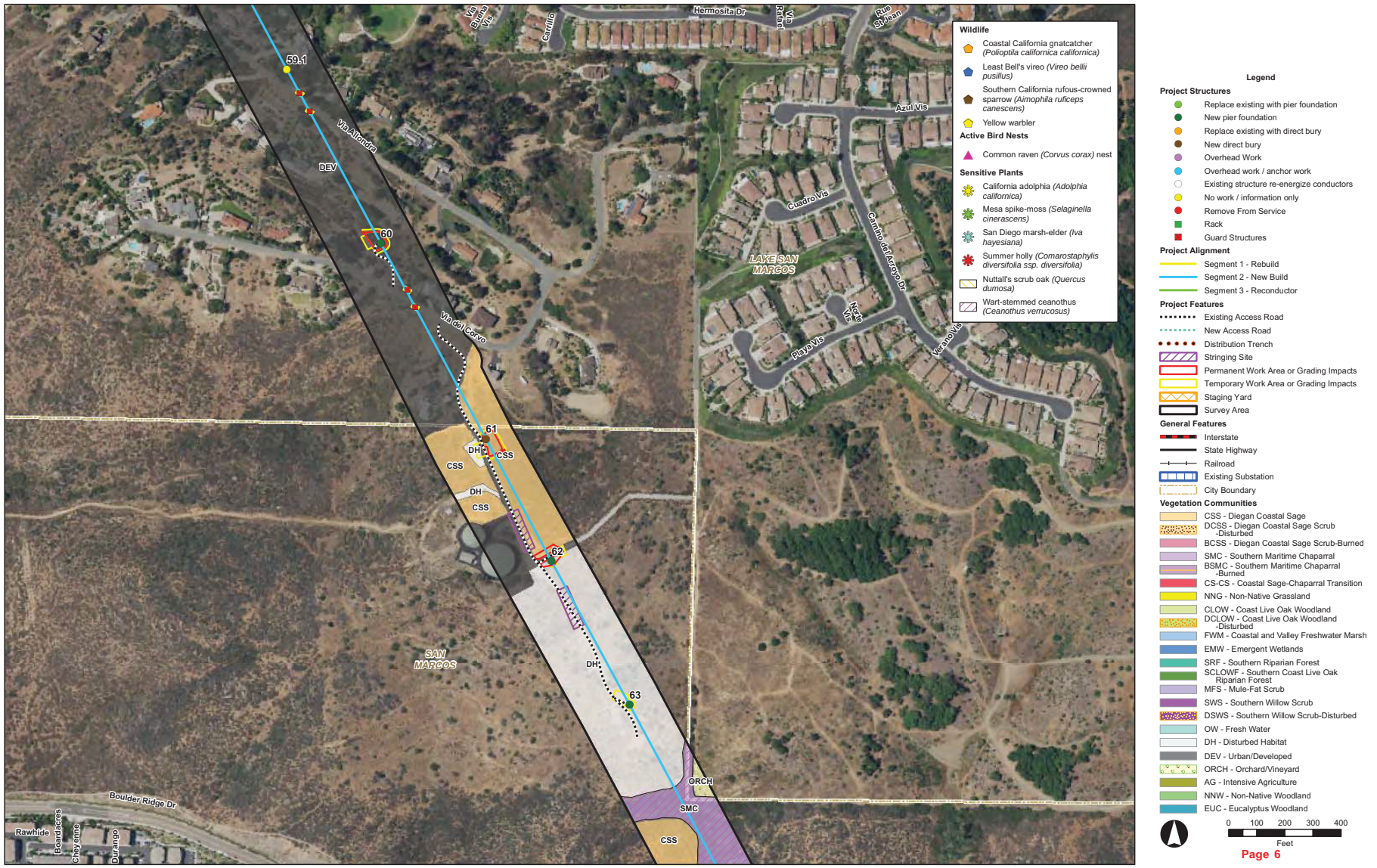


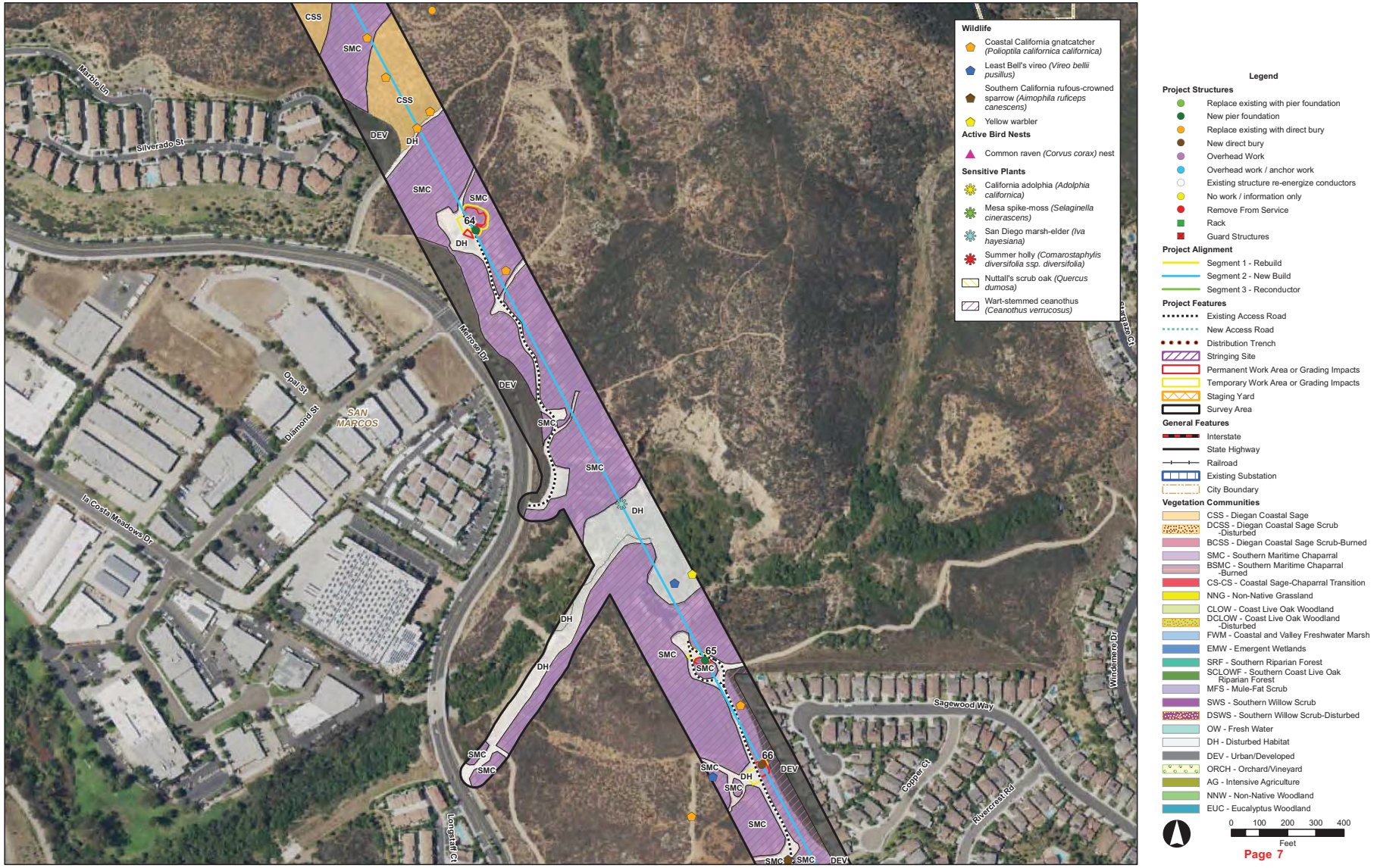
D120812.05 - CPUC SDGE TL6975/05 Graphics-GIS-Modeling/Illustrator

SOURCE: SDG&E, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.4-1.6
Vegetation Communities

ESA



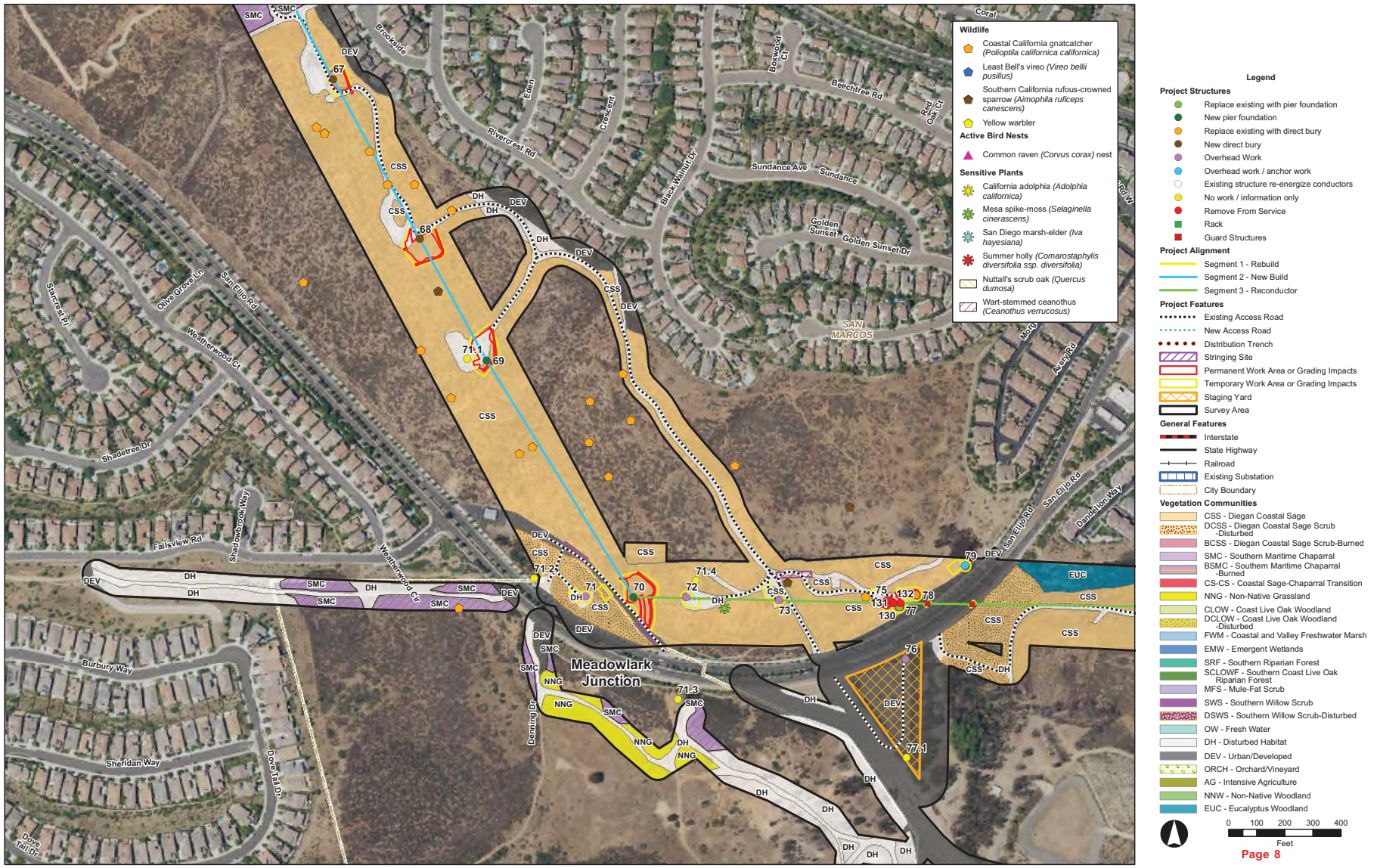
D120812.05 - CPUC SDGE TL6975/05 Graphics-GIS-Modeling/Illustrator

SOURCE: SDG&E, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.4-1.7
Vegetation Communities

ESA



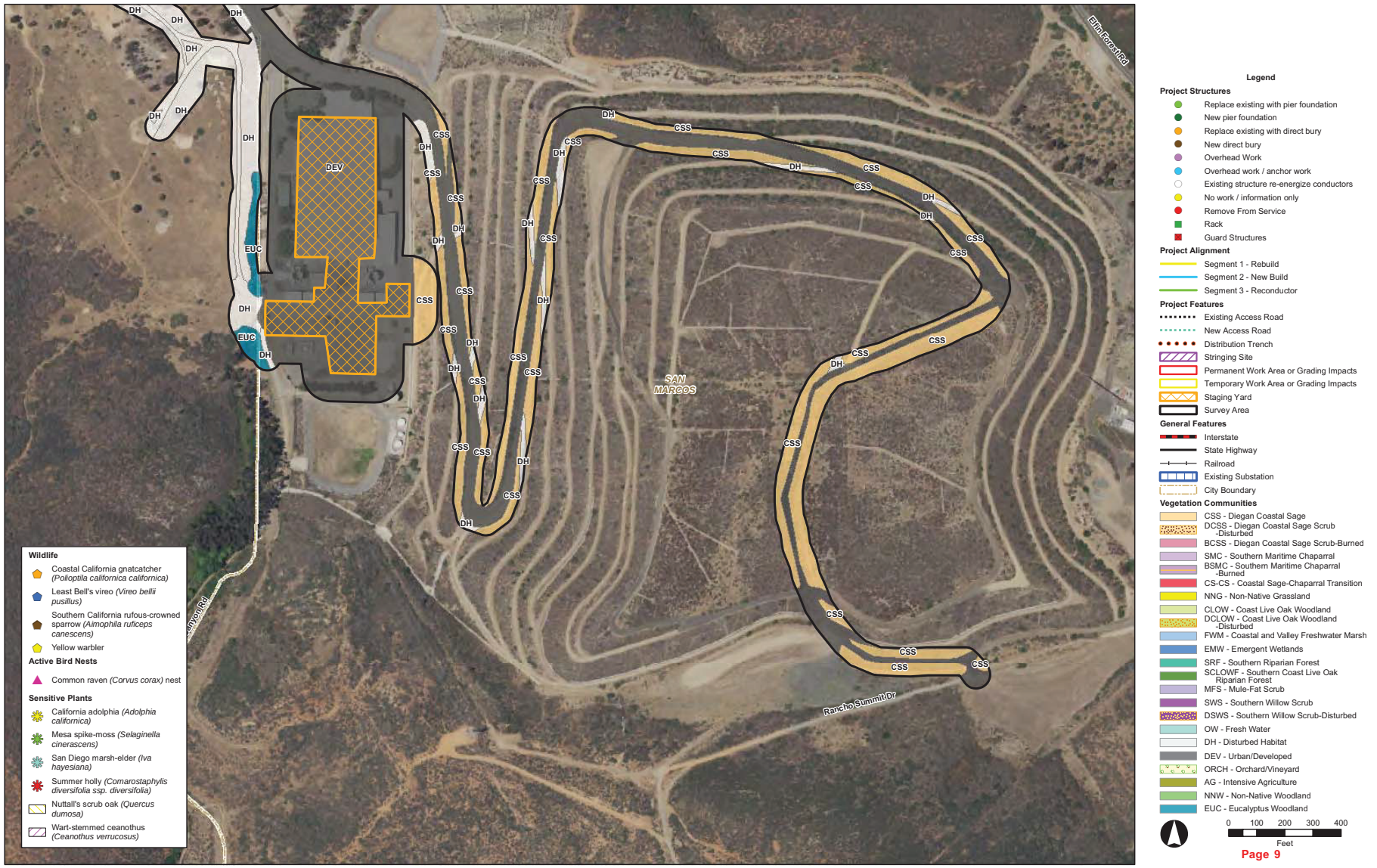
D120812.05 - CPUC SDGE TL6975/05 Graphics-GIS-Modeling/Illustrator

SOURCE: SDG&E, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.4-1.8
Vegetation Communities

ESA



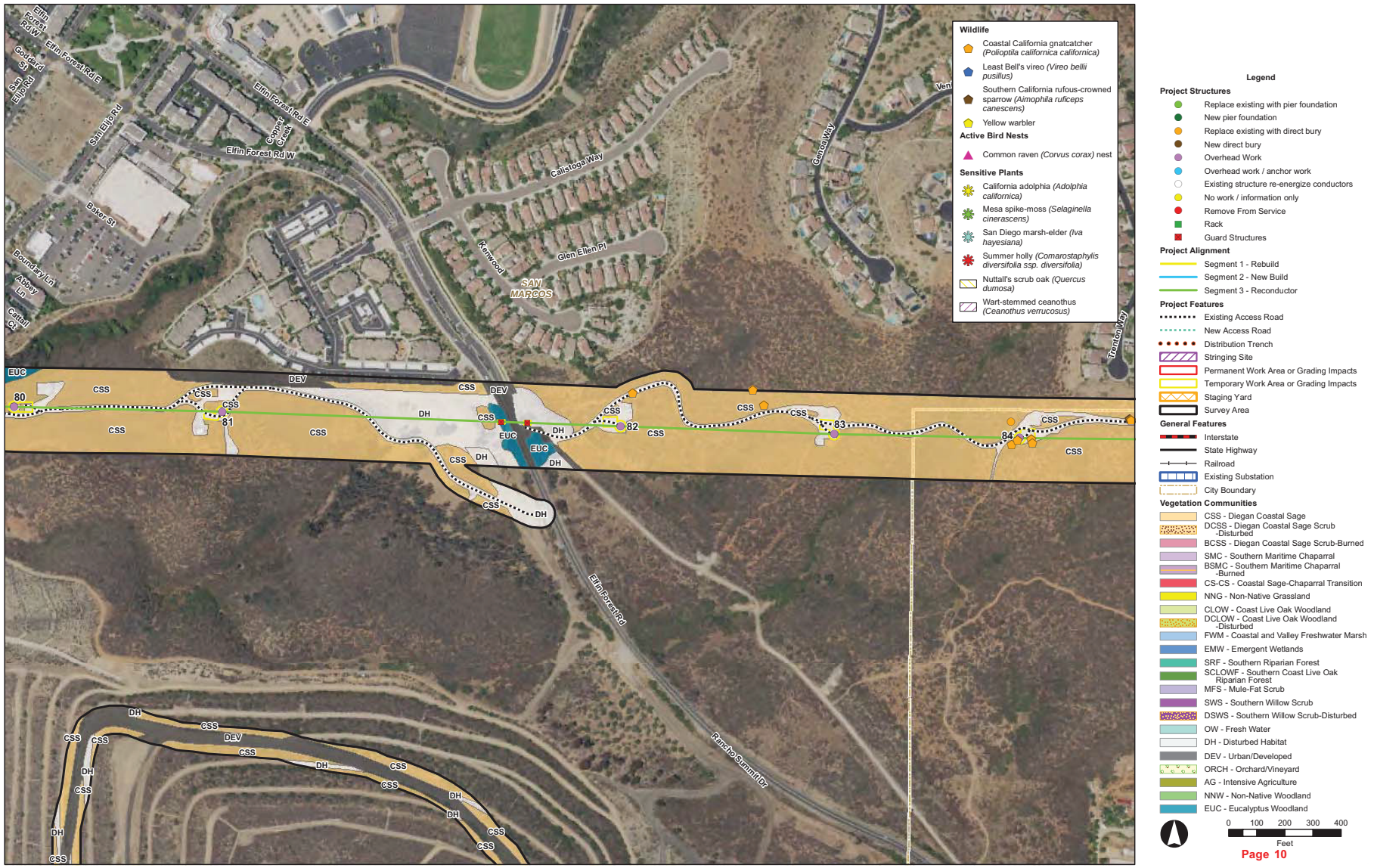
D120812.05 - CPUC SDGE TL6975/05 Graphics-GIS-Modeling/Illustrator

SOURCE: SDG&E, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.4-1.9
Vegetation Communities

ESA



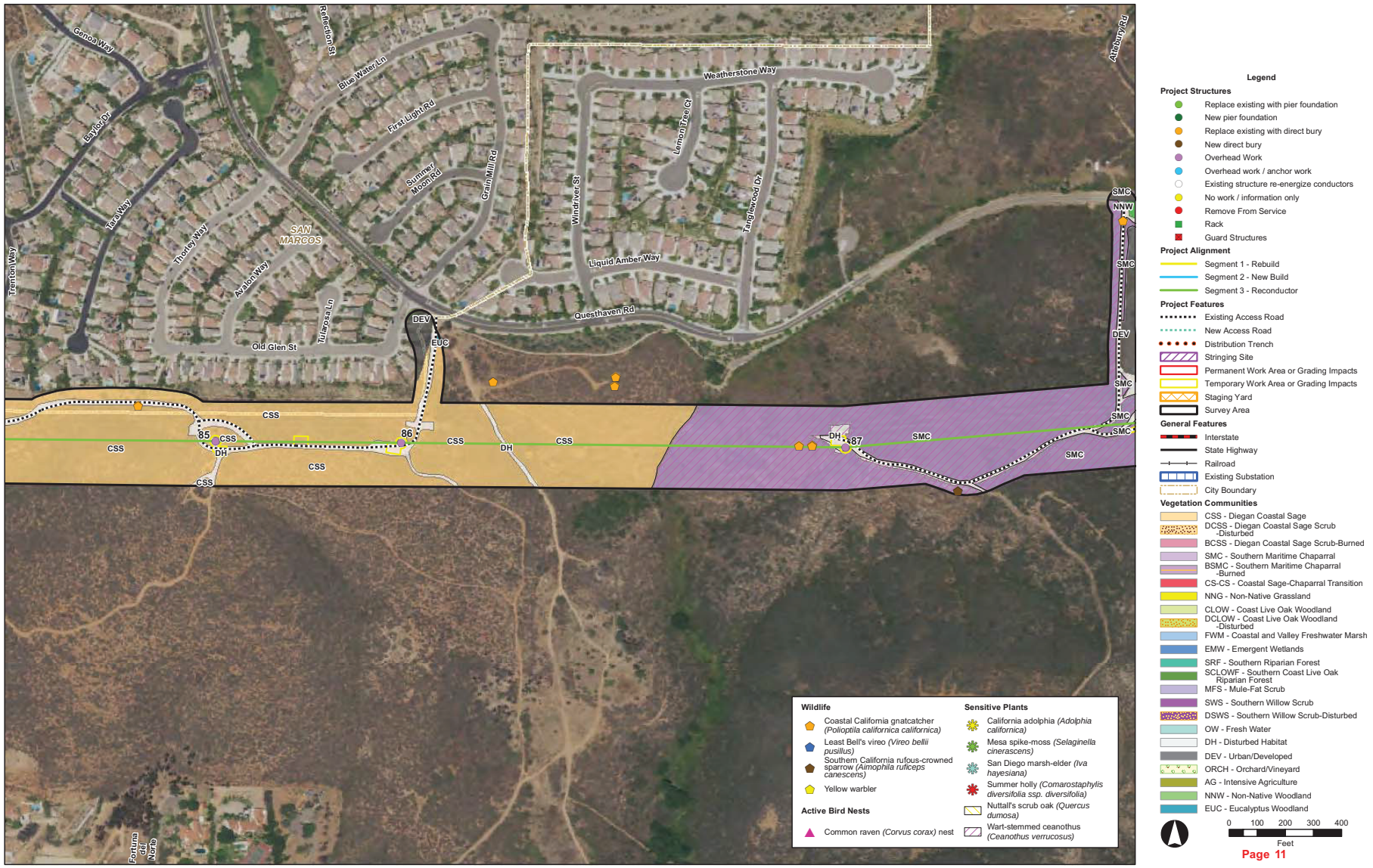
SOURCE: SDG&E, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.4-1.10
Vegetation Communities

ESA

D120812.05 - CPUC SDGE TL6975/05 Graphics-GIS-Modeling/Illustrator



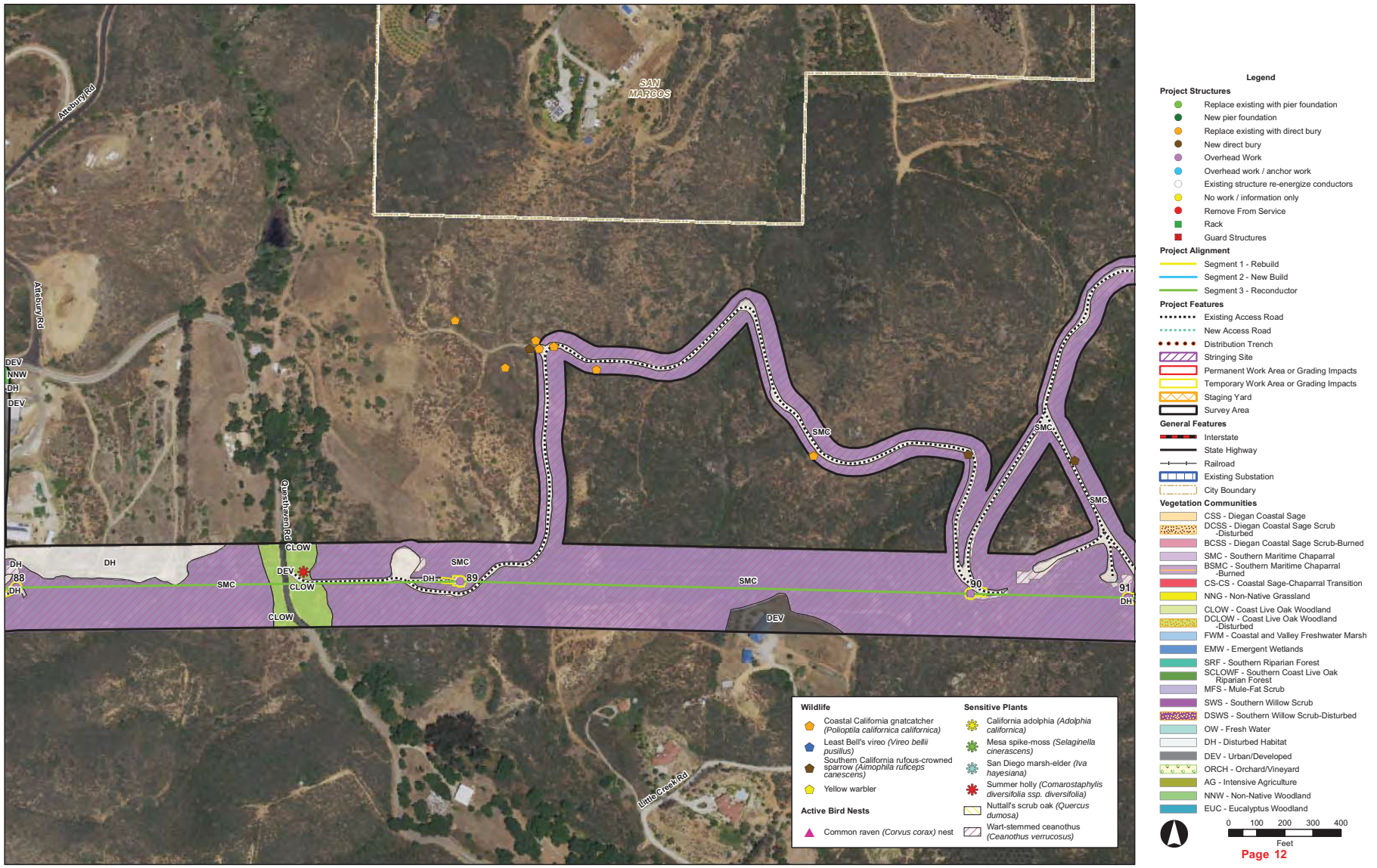
D120812.05 - CPUC SDGE TL6975/05 Graphics-GIS-Modeling/Illustrator

SOURCE: SDG&E, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.4-1.11
Vegetation Communities

ESA



D120812.05 - CPUC SDGE TL6975/05 Graphics-GIS-Modeling/Illustrator

SOURCE: SDG&E, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.4-1.12
Vegetation Communities

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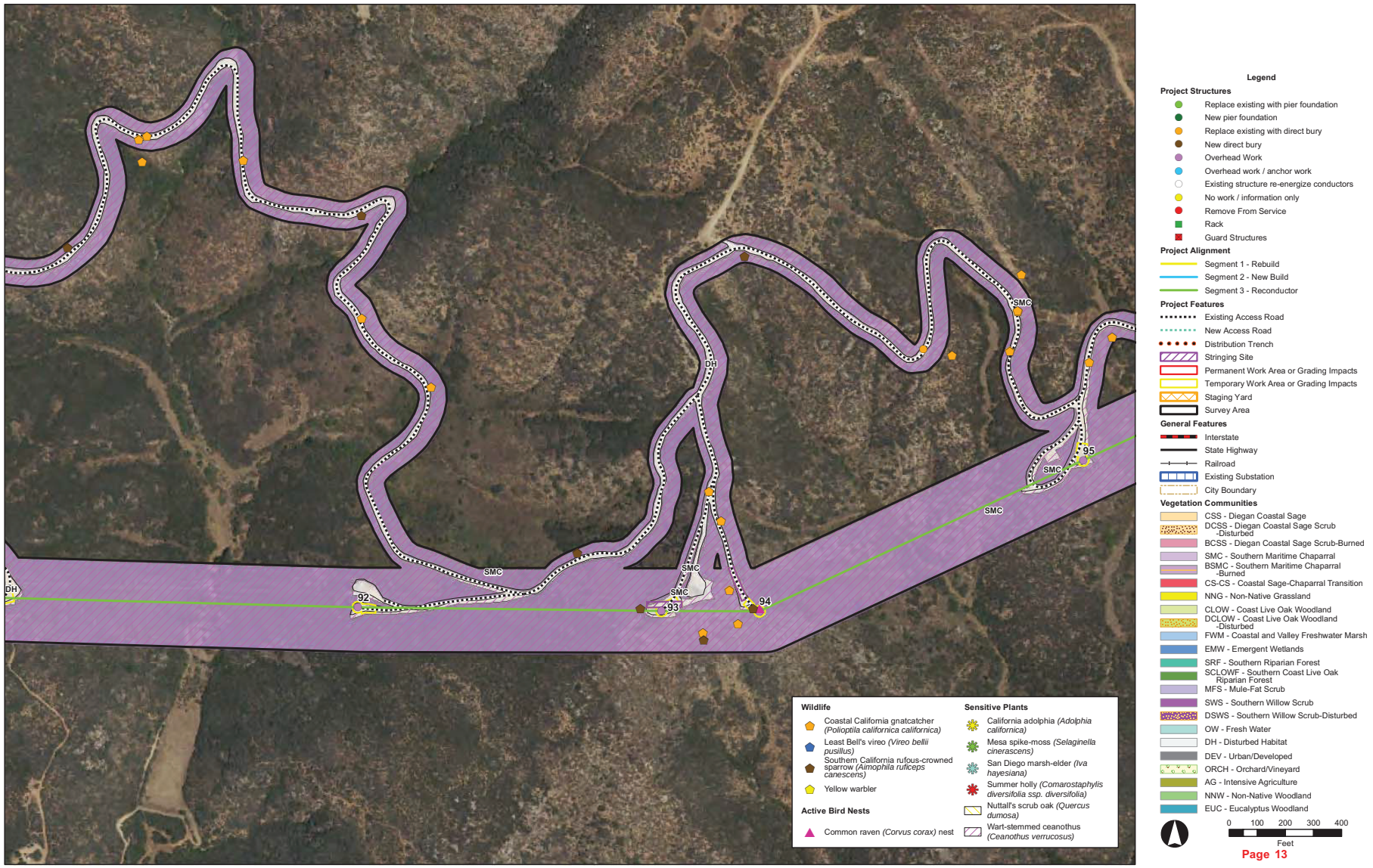


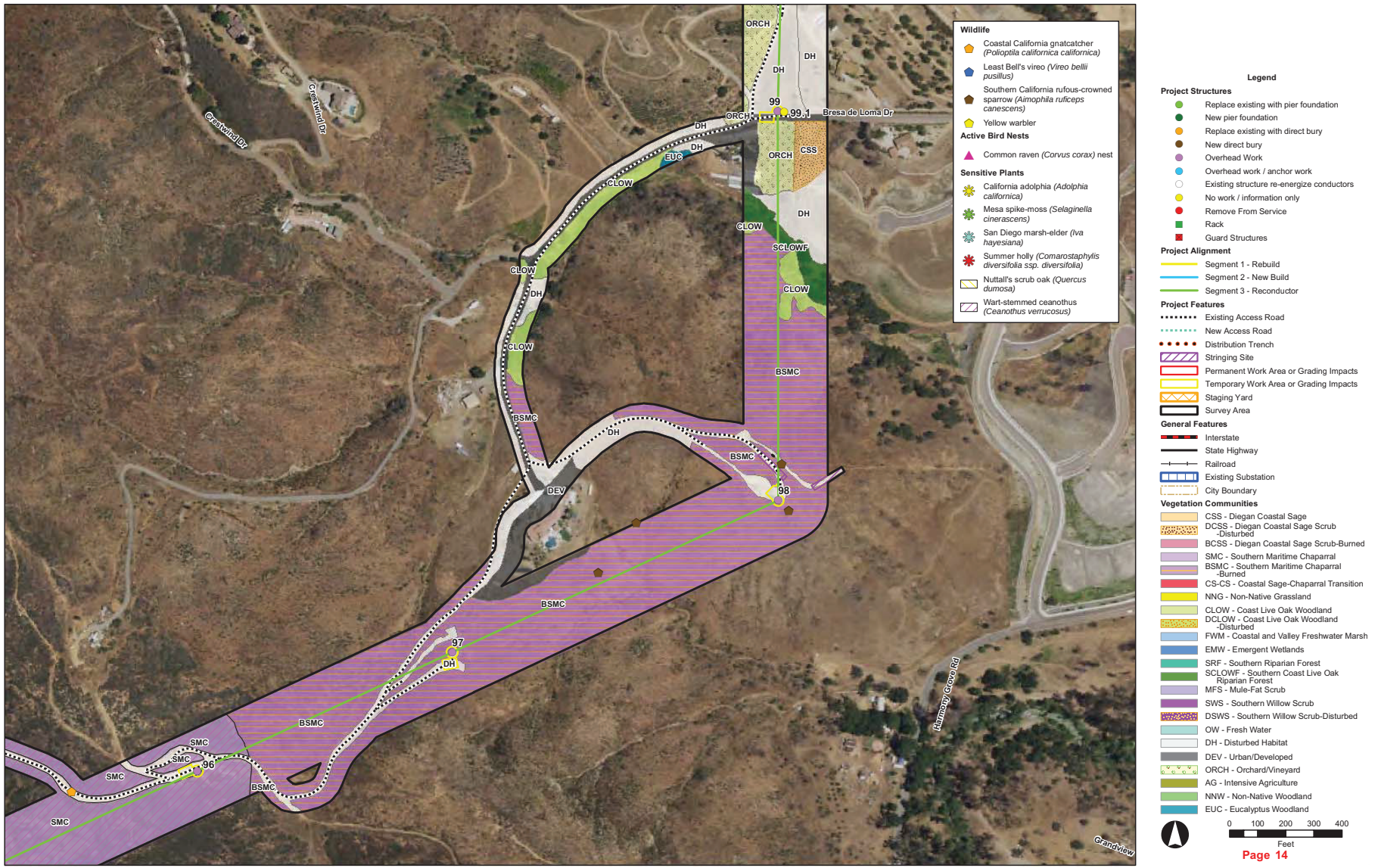
D120812.05 - CPUC SDGE TL6975/05 Graphics-GIS-Modeling/Illustrator

SOURCE: SDG&E, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.4-1.13
Vegetation Communities

ESA



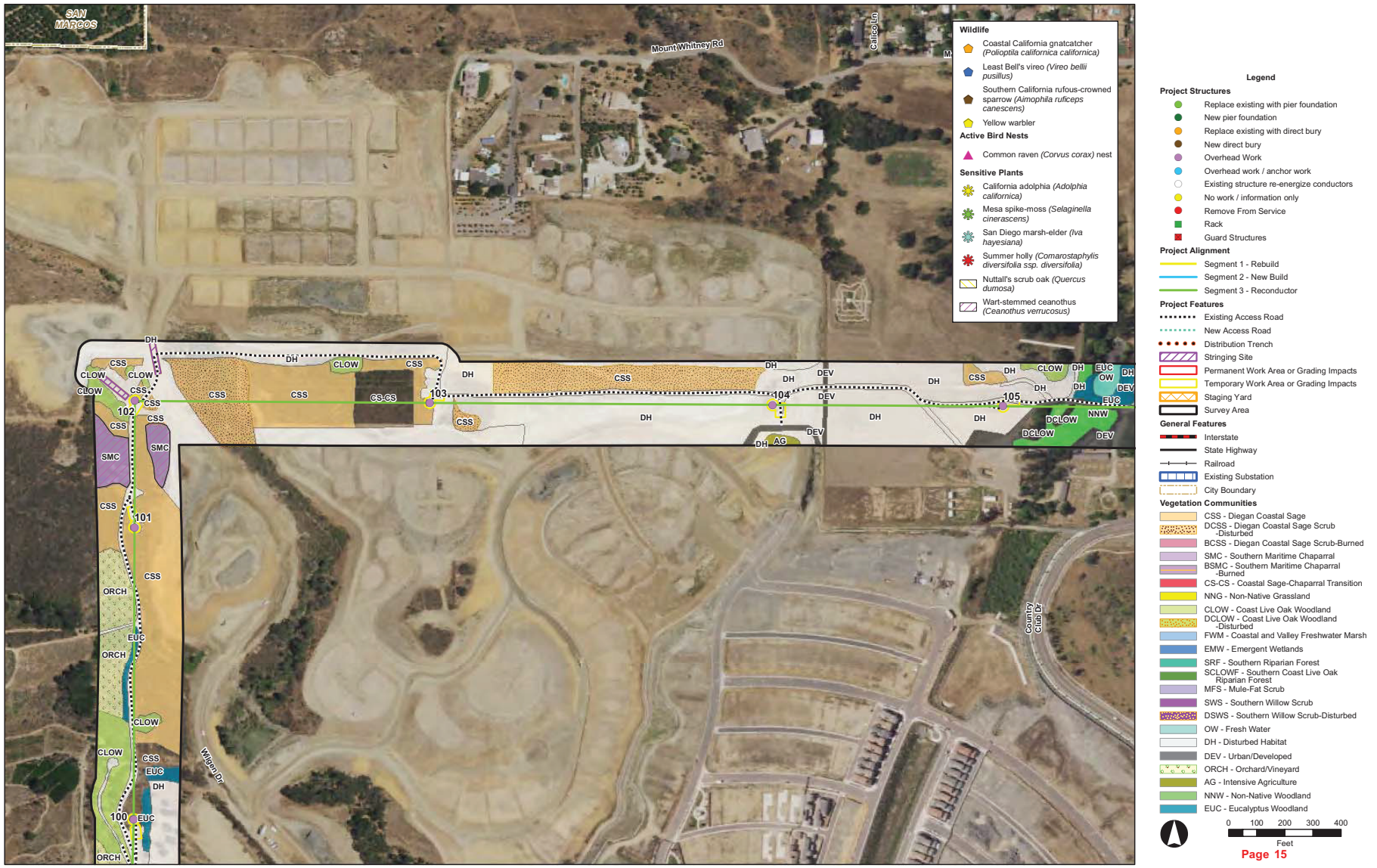
D120812.05 - CPUC SDGE TL6975/05 Graphics-GIS-Modeling/Illustrator

SOURCE: SDG&E, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.4-1.14
Vegetation Communities

ESA



D120812.05 - CPUC SDGE TL6975/05 Graphics-GIS-Modeling/Illustrator

SOURCE: SDG&E, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.4-1.15
Vegetation Communities

ESA

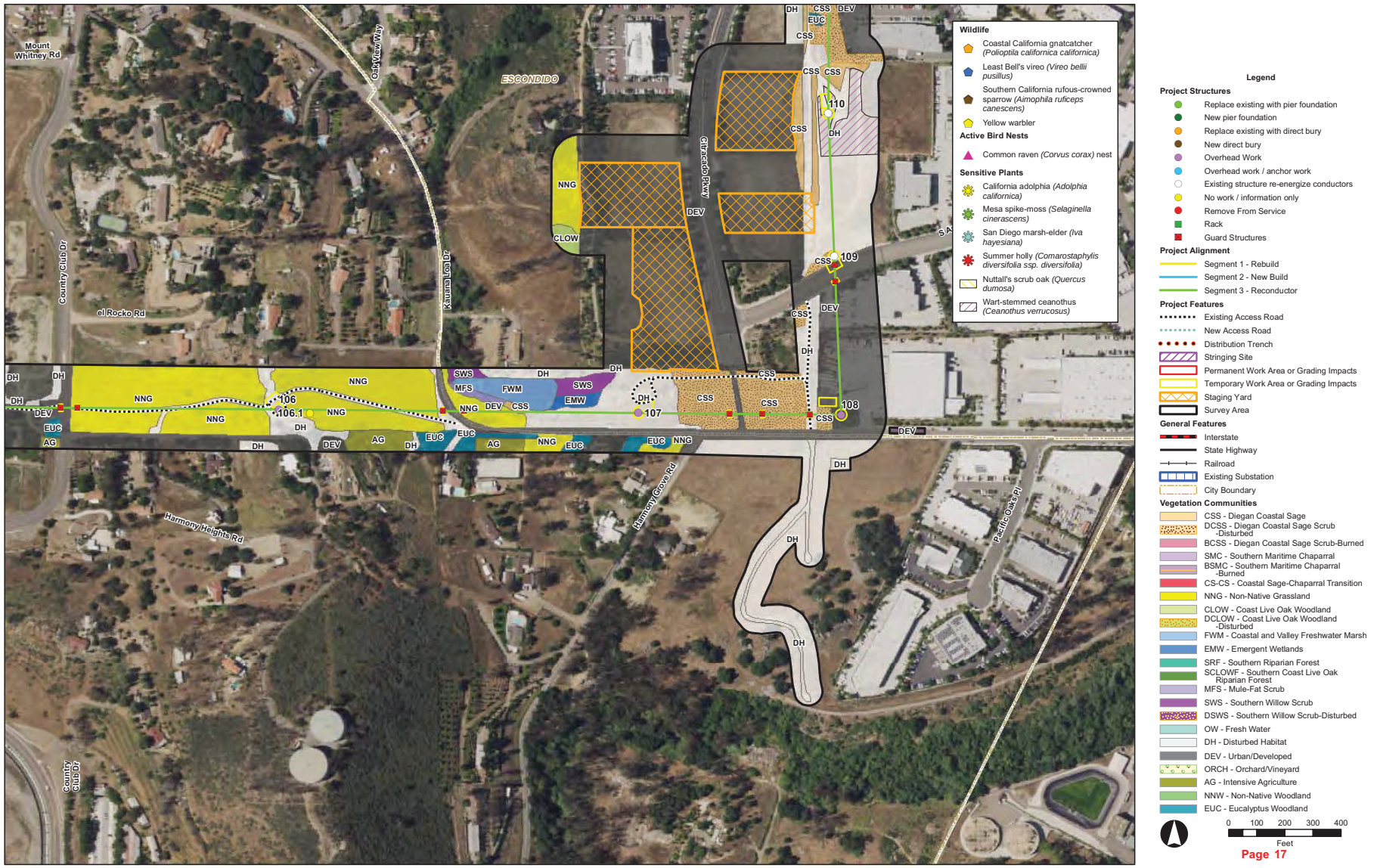
D120812.05 - CPUC SDGE TL6975/05 Graphics-GIS-Modeling/Illustrator

SOURCE: SDG&E, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.4-1.16
Vegetation Communities

ESA



D120812.05 - CPUC SDGE TL6975/05 Graphics-GIS-Modeling/Illustrator

SOURCE: SDG&E, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.4-1.17
Vegetation Communities

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SOURCE: SDG&E, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.4-1.18
Vegetation Communities

ESA

D120812.05 - CPUC SDGE TL6975/05 Graphics-GIS-Modeling/Illustrator

SOURCE: SDG&E, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.4-1.19
Vegetation Communities

ESA

SOURCE: SDG&E, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.4-1.20
Vegetation Communities

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D120812.05 - CPUC SDGE TL6975/05 Graphics-GIS-Modeling/Illustrator

SOURCE: SDG&E, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.4-1.21
Vegetation Communities

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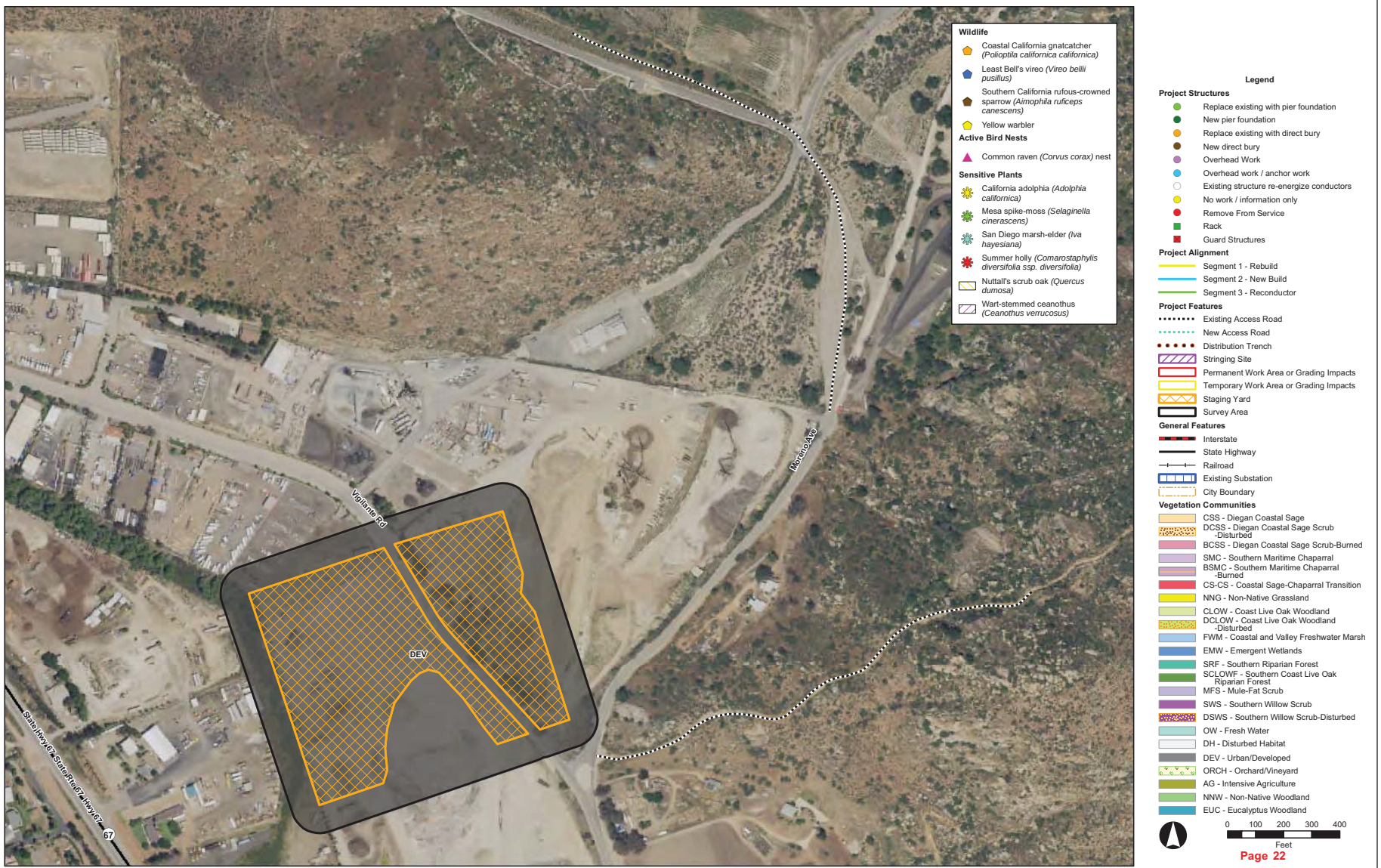

D120812.05 - CPUC SDGE TL6975/05 Graphics-GIS-Modeling/Illustrator

SOURCE: SDG&E, 2018

TL 6975 San Marcos to Escondido Project

Figure 3.4-1.22
Vegetation Communities

ESA

D.2 Biological Technical Report

TL 6975 San Marcos to Escondido Project, San Diego County, California

BIOLOGICAL TECHNICAL REPORT

Prepared for:

San Diego Gas & Electric
8315 Century Park Court
San Diego, CA 92123

Prepared by:

ICF
525 B Street, Suite 1700
San Diego, California 92101

September 2017

SDG&E. 2017. Biological Technical Report: TL 6975 San Marcos to Escondido New 69 kV Project, San Diego County, California. September.

Table of Contents

1. INTRODUCTION 1-1
1.1 Project Description 1-1
1.2 Project Area 1-1
1.3 Project Components 1-2
2. METHODS 2-1
2.1 Literature Review 2-1
2.2 Vegetation Communities 2-3
2.3 Special-Status Plants 2-3
2.4 Special-Status Wildlife 2-4
2.4.1 Coastal California Gnatcatcher Surveys 2-4
2.4.2 Least Bell's Vireo Surveys 2-5
2.4.3 Southwestern Willow Flycatcher Surveys 2-5
2.5 Jurisdictional Delineation 2-5
2.5.1 U.S. Army Corps of Engineers and Regional Water Quality Control Board Jurisdictional Delineations 2-6
2.5.2 CDFW Jurisdictional Delineation 2-6
3. EXISTING CONDITIONS 3-1
3.1 Regulatory Setting 3-1
3.1.1 Federal 3-1
3.1.2 State 3-3
3.2 Local 3-5
3.3 Biological Resource Setting 3-8
3.4 Vegetation Communities 3-9
3.4.1 Disturbed Habitat 3-9
3.4.2 Urban/Developed 3-9
3.4.3 Orchard/Vineyard 3-9
3.4.4 Intensive Agriculture 3-9
3.4.5 Diegan Coastal Sage Scrub 3-10
3.4.6 Coastal Sage-Chaparral Transition 3-11
3.4.7 Southern Maritime Chaparral 3-11
3.4.8 Non-native Grassland 3-12
3.4.9 Emergent Wetlands 3-12
3.4.10 Coastal and Valley Freshwater Marsh 3-12
3.4.11 Southern Riparian Forest 3-13
3.4.12 Southern Coast Live Oak Riparian Forest 3-13
3.4.13 Mule Fat Scrub 3-13
3.4.14 Southern Willow Scrub 3-13
3.4.15 Fresh Water 3-14
3.4.16 Coast Live Oak Woodland 3-14
3.4.17 Non-native Woodland 3-14
3.4.18 Eucalyptus Woodland 3-14
3.5 Special-Status Plants 3-15

3.5.1 Thread-leaved Brodiaea 3-15
3.5.2 Ashy Spike-Moss 3-16
3.5.3 California Adolphia 3-16
3.5.4 Golden-Rayed Pentachaeta 3-16
3.5.5 Nuttall's Scrub Oak 3-16
3.5.6 Orcutt's Brodiaea 3-16
3.5.7 Palmer's Grapplinghook 3-17
3.5.8 San Diego Marsh-Elder 3-17
3.5.9 San Diego Sagewort 3-17
3.5.10 San Diego Sunflower 3-17
3.5.11 Small-Flowered Microseris 3-17
3.5.12 Summer Holly 3-18
3.5.13 Wart-Stemmed Ceanothus 3-18
3.5.14 Western Dichondra 3-18
3.6 Special-Status Wildlife 3-18
3.6.1 Federally-Listed Wildlife Species 3-19
3.6.2 State-Listed Wildlife Species 3-20
3.6.3 Other Special-Status Wildlife Species 3-21
3.7 Jurisdictional Delineation 3-25
3.7.1 Wetlands/Riparian Vegetation 3-25
3.7.2 Streams 3-25
3.8 Wildlife Migration Corridors 3-26
3.8.1 Terrestrial Species 3-26
3.9 USFWS Critical Habitat Areas 3-27
4. IMPACTS 4-1
4.1 Impact Summary 4-1
4.2.1 Permanent Impacts 4-2
4.2.2 Temporary Impacts 4-3
4.2.3 Operations and Maintenance Impacts 4-4
4.3 Vegetation Communities 4-5
4.3.1 Direct Impacts 4-6
4.3.2 Indirect Impacts 4-6
4.4 Special-Status Plant Species 4-8
4.4.1 Direct Impacts 4-8
4.4.2 Indirect Impacts 4-9
4.5 Special-Status Wildlife Species 4-10
4.5.1 Special-Status Reptile Species 4-10
4.5.2 Special-Status and Nesting Avian Species 4-11
4.5.3 Special-Status Mammal Species 4-13
4.6 Jurisdictional Resources 4-15
4.7 Preserve Lands 4-15
4.8 Wildlife Migration Corridors 4-16
4.9 USFWS Critical Habitat Areas 4-17
5. REFERENCES 5-1

Appendices

Appendix A Figures
Appendix B 2016 Coastal California Gnatcatcher, Least Bell's Vireo, and Southwestern Willow Flycatcher Survey Report
Appendix C Jurisdictional Delineation Report for the SDG&E TL 6975 Escondido to San Marcos New 69 kV Project
Appendix D Special-Status Plant and Wildlife Species Known or with Potential to Occur in the Survey Area
Appendix E 2016 Field Habitat Assessment for Arroyo Toad (*Anaxyrus californicus*) for SDG&E TL 6975
Appendix F SDG&E Natural Communities Conservation Plan Operational Protocols

Figures (Appendix A)

Figure 1: Project Location A-1
Figure 2: Project Vicinity A-3
Figure 3: Preserves and Critical Habitat A-5
Figure 4: Vegetation and Special-Status Species A-7

Tables

Table **Page**
Table 1: Criteria for Evaluating Special-Status Species Potential to Occur 2-2
Table 2: Survey Personnel and Dates 2-3
Table 3: Vegetation Communities within the PSA 3-10
Table 4: Potential Impacts Resulting from the Proposed Project 4-2
Table 5: Potential Impacts on Vegetation Communities 4-7
Table 6: Impacts on Special-Status Plant Species 4-9

Acronyms

ACSR/AW	aluminum-clad conductor steel-reinforced
AMSL	above mean sea level
APLIC	Avian Power Line Interaction Committee
BGEPA	Bald and Golden Eagle Protection Act
BMPs	best management practices
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society's
COS	Conservation and Open Space
CPUC	California Public Utilities Commission
CRPR	California Rare Plant Rank
CWA	Clean Water Act
FESA	Federal Endangered Species Act
FR	*Federal Register*
FP	fully protected
GIS	geographic information system
GPS	global positioning system
HCP	habitat conservation plan
I-15	Interstate 15
kV	kilovolt
MHCP	Multiple Habitat Conservation Program
MSCP	Multiple Species Conservation Program
NCCP	Natural Communities Conservation Plan
NERC	North American Electric Reliability Corporation
NOAA	National Oceanic and Atmospheric Administration's
North County Plan	North County Multiple Species Conservation Plan
NRCS	Natural Resources Conservation Service
OHWM	ordinary high water mark
PAMAs	pre-approved mitigation areas
Proposed Project	SDG&E Escondido Substation and San Marcos Substation

PSA	Project Study Area
ROW	right-of-way
RWQCB	Regional Water Quality Control Board
SDG&E	San Diego Gas and Electric Company
SSC	Species of Special Concern
TL	Tie-Line
U.S.	United States
USC	United States Code
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1. INTRODUCTION

1.1 PROJECT DESCRIPTION

San Diego Gas and Electric Company (SDG&E) proposes to construct, reconductor, and operate a new, approximately 12-mile 69 kilovolt (kV) overhead electric power line between the existing SDG&E Escondido Substation and San Marcos Substation (Proposed Project) to support existing and future area load and to prevent potentially long outages or disruption of service to existing and new customers in the communities and the surrounding area. The Proposed Project will be a combination of new overhead single circuit electric power line structures, rebuild of existing structures from single circuit to double circuit, and reconductor and re-energizing of existing conductors. The rebuilt and reconductored portions of the power line would be entirely within existing ROWs, with a small portion of the Segment 1 Rebuild requiring approximately 1.2 acres of new ROW where the existing ROW would be widened. In the Segment 1 Rebuild section, the existing distribution underbuilt line currently co-located with the Proposed Project would be reconductored and some trenching would be involved to intercept existing underground conduit and reroute to the new pole. At Meadowlark Junction the existing distribution line would be reconfigured and rerouted to the new pole locations along with an extended access road. In the portion of the Proposed Project where the existing powerline would be reconductored and re-energized all modifications would occur on the existing structures. No new substations are proposed.

The Proposed Project is intended to meet the following objectives: 1) Eliminate the existing congestion in the Escondido/San Marcos area; 2) Eliminate North American Electric Reliability Corporation (NERC) Category P0 (Cat A) and Category P1 (Cat B) violation on Tie-Line (TL) 680C (San Marcos–Melrose Tap); and 3) Improve reliability by providing an additional feed to San Marcos Substation.

1.2 PROJECT AREA

The Proposed Project components are located in the northern portion of San Diego County in the cities of Carlsbad, Escondido, and San Marcos, and in unincorporated San Diego County, California. The City of Carlsbad is 1.85 miles from San Marcos Substation and the City of Vista is 5.28 miles from Escondido Substation; the Proposed Project is approximately 25 miles north of downtown San Diego. The Proposed Project is located west of Interstate 15 (I-15), south of California Highway 78, and north of Elfin Forest Recreational Area and can be found on the United States Geological Survey (USGS) San Marcos, Rancho Santa Fe, and Escondido 7.5-minute quadrangles (Appendix A, Figure 1: Project Location). The California State University at San Marcos is situated between the existing substations, and a portion of the Proposed Project traverses along San Marcos Boulevard/County Highway S12 and crosses Rancho Santa Fe Road/County Highway S10, as well as other local existing roadways. The areas in and around the Proposed Project include land uses such as residential neighborhoods, industrial facilities, open space and preserves, and commercial and vacant lands. The existing San Marcos Substation is located on the south side of Highway 78, just south of County Highway S12/San

Marcos Boulevard, within the City of San Marcos. The existing Escondido Substation is also located on the south side of Highway 78, just north of Auto Park Way, within the City of Escondido.

The Proposed Project Study Area (PSA) is defined as a 150-foot-wide buffer (300-foot survey corridor) around the TL alignment, stringing sites, and road widening work sites, a 100-foot buffer around staging yards, and a 20-foot buffer around proposed access roads (Appendix A, Figure 2: Project Vicinity). The buffer was surveyed to address the potential for indirect impacts to result from Proposed Project construction activities and to provide SDG&E with constraints information to use when finalizing temporary and permanent impact areas, as summarized in Section 4.1, Impact Summary.

1.3 PROJECT COMPONENTS

The Proposed Project includes the following components broken out by segments:

- Segment 1 Rebuild: Rebuilding approximately 2.0 miles of an existing 69 kV circuit power line near San Marcos Substation to create a double circuit 69 kV line. This would consist of rebuilding an existing 69 kV circuit (TL 680C) from a single circuit structure line into a double circuit structure line supporting both the existing TL 680C and proposed TL 6975. All wood structures would be replaced with steel poles; all porcelain insulators would be replaced with polymer; and TL 680C would be reconductored. The line would be rebuilt from San Marcos Substation, along San Marcos Boulevard and Palomar Airport Road until reaching the existing 150-foot-wide SDG&E corridor approximately 800 feet west of White Sands Drive, at which TL 680C would continue on its existing alignment north within the SDG&E corridor, while TL 6975 would split off to the south on its own new 69 kV single circuit structures toward Meadowlark Junction. The existing distribution underbuilt would be reconductored. Based on new pole positions, some trenching would be involved to intercept existing underground conduit and reroute to the new pole. A new power line would be added at San Marcos Substation and reconductoring would occur near San Marcos Substation of the existing TL 680C line with ACSR/AW and the new TL 6975 line would have 636 ACSS/AW. The work at San Marcos Substation would occur at the same as structure installation for Segment 1. At Escondido Substation, existing overhead conductor would be transferred from the 138 kV rack to an existing 69 kV bay position for the new TL 6975.
- Segment 2 New Build: Addition of approximately 2.8 miles of a new single circuit 69 kV overhead power line from the end of Segment 1to the existing Meadowlark Junction within an existing SDG&E utility corridor. This new segment would be constructed on new steel poles starting near Palomar Airport Road and traveling south to the existing Meadowlark Junction (north of San Elijo Road and Hidden Canyon Road), and be located adjacent to the existing TL 13811/13825 power line. The new single circuit 69 kV steel poles would be constructed within the SDG&E corridor approximately 50 feet east of centerline of the existing structures. All of the new steel poles would have graded roads and access/maintenance pads built to them in order to facilitate construction and provide long-term maintenance access. At Meadowlark Junction the existing 12 kV distribution line

would be reconfigured. Two wood poles would be removed, two steel poles would be installed, and one wood pole would be replaced with steel and include anchoring. The existing access road would be extended and widened to provide access to the new steel poles.

- Segment 3 Reconductoring/Re-Energizing: Reconductoring approximately 7.4 miles of a de-energized transmission line segment to the existing Escondido Substation. Minor work would occur at the existing Escondido Substation to accommodate this new circuit. From Meadowlark Junction to Escondido the new power line would transition to existing steel lattice towers that contain a segment of overhead conductor that is currently de-energized. An approximately 7.4-mile reconductor is required for the de-energized segment that is on the existing lattice towers. The existing lattice tower and steel pole line contains conductor, hardware, and insulators on both sides of the double circuit structures. For this project the 250 thousand circular mils (MCM) copper conductor and porcelain insulators on the north side of the towers would be removed and replaced with polymer insulators and new 636 ACSS/AW conductor. The reconductor would be between Meadowlark Junction and a structure on Harmony Grove Road approximately 500 feet east of Kauana Loa Drive. From this point to the Escondido substation, the existing 900 ACSS/AW conductor would remain in place.

The Proposed Project includes the following main components:

- Removal of approximately 19 poles.
- Replacement of approximately 40 wooden power line poles with 40 weathered steel poles that would be direct buried or supported by foundations.
- Installation of approximately 18 new steel weathered poles that would be either supported by foundations or direct-bury
- Pole-top work reconductoring/re-energizing at approximately 43 structures. Poles would not be replaced, however two of these structures would have anchor work occur.
- Reconductoring near San Marcos Substation of the existing TL 680C 69 kV line with 636 aluminum-clad conductor steel-reinforced (ACSR/AW) wires. The new TL 6975 line would have 636 ACSS/AW.
- Reconductor the existing distribution underbuild.
- Reconductoring near Meadowlark Junction of the existing lattice tower and steel pole line with 636 ACSS/AW conductor.
- No new access roads will be installed, with the exception of four spur roads. Road-widening work in one existing access road area to provide access to the new steel poles and distribution line area at Meadowlark Junction.
- Installation of approximately 50 temporary guard structures.
- Use of approximately 21 stringing sites (12 stringing sections).
- Potential use of 10 staging yards. At Escondido Substation existing overhead conductor would be transferred from the 138 kV rack to an existing 69 kV bay position for the new TL

6975. Three existing 69 kV circuits would be transferred to different bay positions. The last overhead spans (drop spans) of existing power lines TL 6908, TL 6934, and TL 689 would be relocated to available bay positions. New steel poles and replacement guys and anchors would be required to accomplish these relocations.

- Interception of 360 feet of primary and secondary underground conduit from existing poles to new pole positions.
- Rack locations would include approximately 7 areas within the San Marcos and Escondido Substations
- Fifteen structure along the alignment were identified as not requiring work.
- 4 structure areas were identified for possible work.

2. METHODS

2.1 LITERATURE REVIEW

Prior to conducting field surveys, ICF conducted a literature and records search for information on special-status species occurrences within the PSA. The following databases/resources were reviewed for occurrences within 5 miles of the PSA:

- A Biological Constraints Analysis report (KP Environmental 2015) conducted for the project PSA.
- The California Department of Fish and Wildlife (CDFW) Special Animals List (CDFW 2017).
- California Natural Diversity Data Base (CNDDB) (CDFW 2016) element occurrences.
- California Native Plant Society's (CNPS) Online Inventory of Rare and Endangered Plants, 8th Edition (CNPS 2016).
- National Wetlands Inventory database.
- USGS 7.5-minute topographical maps of the PSA and vicinity (USGS 2016).
- U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Soil Survey maps (2016).
- Critical Habitat for Threatened and Endangered Species online mapper (USFWS 2017).

For the purposes of this report, species are considered to have special-status if they meet at least one of the following criteria:

- Species listed or proposed for listing as threatened or endangered under the Federal Endangered Species Act (FESA) (Code of Federal Regulations [CFR], Title 50, Section 17.12 [listed plants]).
- 50 CFR 17.11 (listed animals); and various notices in the *Federal Register* (FR) (proposed species).
- Species that are candidates for possible future listing as threatened or endangered under the FESA (79 FR 72450, December 5, 2014).
- Species listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (CESA) (14 California Code of Regulations [CCR] 670.5).
- Plant species listed as rare under the California Native Plant Protection Act (California Fish and Game Code 1900, et seq.).
- Species that meet the definitions of *rare* or *endangered* under the California Environmental Quality Act (CEQA) (Sections 15380 and 15125).

- Wildlife species of special concern to the CDFW.
- Wildlife species that are fully protected in California (California Fish and Game Code [CFGC] Sections 3511 [birds], 4,700 [mammals], 5050 [amphibians and reptiles], and 5515 [fish]).
- Species listed as having a California Rare Plant Rank (CRPR) as 1A (presumed extinct in California), 1B (rare, threatened, and endangered in California and elsewhere), or 2 (rare, threatened, or endangered in California, but more common elsewhere) (CNPS 2016). CRPR List 1A, 1B, 2, and 3 species are considered special-status plant species as defined in the Native Plant Protection Act, CFGC Section 1901, or the CESA, CFGC Sections 2050 through 2098.
- CRPR 3 (plants for which more information is needed [a review list]), or 4 (plants of limited distribution [watch list]) (CNPS 2016). Many CRPR 4 species do not meet the definitions of special-status as defined in the Native Plant Protection Act, CFGC Section 1901, or the CESA, CFGC Sections 2050 through 2098 but are strongly recommended for consideration under CEQA (CNPS 2001).

The results of the literature review were compiled into a list of potentially occurring plant and wildlife species, and each species was analyzed for their potential to occur within the PSA.

Table 1: Criteria for Evaluating Special-Status Species Potential to Occur

Potential	Criteria
Not Expected	Species is restricted to habitats or environmental conditions that do not occur within the PSA, or a plant was not observed during focused rare plant surveys that would have been observed if present in the PSA (i.e., a conspicuous perennial, shrub or tree).
Low	Records for this species exist within 5 miles of the PSA but habitats or environmental conditions needed to support the species do not exist, are very limited, are isolated, or are highly disturbed within the PSA. Low potential to occur may also be used when species records are very old (pre-1980s), regardless of habitat conditions within the PSA. For special-status plants, low potential may also be used when the plant was not observed during special-status plant surveys and its lack of detectability may be due to environmental limitations such as drought or annual variability in germination (i.e., bulbiferous perennials, annuals).
Moderate	Records for this species exist within 1-5 miles of the PSA, however habitats or environmental conditions needed to support the species are limited within the PSA. Species records indicate few previously documented occurrences within 1 mile of the PSA.
High	Records for this species exist within 1 mile of the PSA and habitats or environmental conditions needed to support the species exists within the PSA. Species records indicate previously documented occurrences within 1 mile of the PSA.
Present	Species was detected within or near the PSA during Proposed Project surveys.

2.2 VEGETATION COMMUNITIES

Vegetation communities were mapped within the PSA in 2015 and in 2017 for the staging yards. Vegetation community classification followed Holland (1986), as updated by Oberbauer (2008). The vegetation communities present within the survey area were mapped using a minimum mapping unit of 1.0 acre for upland vegetation communities and 0.5 acre for riparian vegetation communities.

2.3 SPECIAL-STATUS PLANTS

Based on information obtained through the literature review and reconnaissance surveys, surveys for special-status plants were deemed necessary. All suitable habitat within the PSA was surveyed except between structures 103 and 104 due to non-SDG&E active construction precluding access at the time of the surveys. The total survey area was 322 acres and did not include areas mapped as developed, disturbed, intensive agriculture, or orchard vineyard. Focused rare plant surveys were performed in accordance with survey protocols set forth by *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants* (USFWS 2000a); *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFG 2009); and *CNPS Botanical Survey Guidelines* (CNPS 2001).

Surveys were conducted in March, April, and May 2016 (Table 2: Survey Personnel and Dates). All plant species observed within the survey area were recorded and identified to species, subspecies, or variety as applicable using *The Jepson Manual Vascular Plants of California Second Edition* (Baldwin et al. 2012). Plant taxonomy and nomenclature followed the *Checklist of The Vascular Plants of San Diego County Fifth Edition* (Rebman and Simpson 2014).

Table 2: Biological Surveys

Survey	Date			Personnel
2016				
California gnatcatcher (PSA)	March 15 March 17 March 22 March 29 March 30 April 1* April 12**† April 13*‡ April 14	April 16 April 25*‡ April 27 April 28 May 3* May 9* May 10† May 12 June 5	June 7♣ June 8† June 12	Kimberly Ferree * with Ryan Layden ** with Camilla Estes, † with Nicole Salas, ‡ with Julia Vandergarder, ♣ with Courtney Casey
Least Bell's vireo (PSA)	May 8* May 21 June 1 June 13	June 24 July 5 July 16 July 30		K. Ferree * with C. Estes

Survey	Date		Personnel
Southern Willow Flycatcher (PSA)	May 21 June 1 June 13	June 24 July 5	K. Ferree
Vegetation mapping and rare plant surveys (PSA)	March 23* March 24* March 25 March 28* March 29	March 30 April 29 May 2 May 13*	Lance Woolley * with Keoni Calantas
2017			
Vegetation mapping and rare plant surveys (Staging Yards)	March 16 April 13		L. Woolley, Brett Bowen

The location of special-status plants was mapped with a hand-held, submeter-accuracy global positioning system (GPS) unit. Subsequent to the field survey, data were downloaded from the GPS unit, post-processed, and brought into a geographic information system (GIS) for analysis.

2.4 SPECIAL-STATUS WILDLIFE

Based on the results from the literature review, protocol surveys were deemed necessary to determine the presence/absence of the following special-status species within the PSA: coastal California gnatcatcher (*Polioptila californica californica*), least Bell's vireo (*Vireo bellii pusillus*), and southwestern willow flycatcher (*Empidonax traillii extimus*). The methodology for these protocol surveys is summarized below. A complete description of the methods used to perform these surveys is provided in Appendix B 2016 Coastal California Gnatcatcher, Least Bell's Vireo, and Southwestern Willow Flycatcher.

2.4.1 Coastal California Gnatcatcher Surveys

Due to the presence of suitable habitat for coastal California gnatcatcher, including coastal sage scrub habitat, presence/absence surveys were conducted in accordance with the U.S. Fish and Wildlife Service (USFWS) protocol (USFWS 1997). Six protocol surveys were conducted at least one week apart between March 15 and June 12, 2016. During the first survey, all potentially suitable gnatcatcher habitat, including coastal sage scrub, chaparral, and grassland vegetation communities, was surveyed throughout the entire PSA. After the initial survey, six survey areas were determined to contain suitable habitat and were surveyed during the remaining five surveys. Habitat determined to be unsuitable was excluded from further surveys. A pre-recorded audiotape playback was used to locate gnatcatchers. Once a gnatcatcher was detected either visually or aurally, playback was ceased. Surveys were performed during morning hours prior to 12:00 p.m., when gnatcatchers are most active. Some surveys finished between 12:00 p.m. and 1:30 p.m. when weather conditions were good (<70°F) and birds were observed to be active.

2.4.2 Least Bell's Vireo Surveys

Due to the presence of suitable habitat within the PSA, focused surveys for least Bell's vireo were determined necessary. Methods for the least Bell's vireo surveys adhered to the recommended guidelines provided by the USFWS for presence/absence surveys (USFWS 2001). After the initial survey of all riparian habitat within PSA, one area was identified and determined to contain suitable vireo habitat. All other riparian areas were excluded because they were either not suitable or too small to support a vireo territory (<0.1 acre). ICF biologists conducted eight presence/absence surveys for least Bell's vireo between May 9 and July 30, 2016. All visits were performed during morning hours prior to 11:30 a.m. when vireos are most active, and included frequent stops to look for individuals and listen for vocalizations (songs and/or scolds).

2.4.3 Southwestern Willow Flycatcher Surveys

Due to the presence of suitable habitat within the PSA, focused surveys for southwestern willow flycatcher were determined necessary. Five protocol southwestern willow flycatcher surveys of the same survey area as the least Bell's vireo were conducted following the amended survey methodology between May 21 and July 5, 2015 (Sogge et al. 2010, USFWS 2000). One survey occurred within the first survey period (May 15–31), three within the second survey period (June 1–24), and one within the third survey period (June 25–July 17). Each survey was conducted at least five days apart and was concluded by 11:30 a.m. Surveys included thorough coverage of all potentially suitable habitats, which consisted of slowly walking with frequent stops to look, listen, and play recordings of flycatcher vocalizations. Recordings were played at distance intervals of approximately 75–100 feet, and only while stationary and after first looking and listening for any potential flycatchers.

2.5 JURISDICTIONAL DELINEATION

Aquatic resource specialists, Lanika Cervantes, Amanda Parra, and Marissa Maggio, performed an informal jurisdictional determination on all aquatic resources potentially impacted by the Proposed Project. Prior to conducting fieldwork, ICF biologists reviewed aerial photographs and U.S. Geological Survey topographic maps of the PSA to identify likely jurisdictional wetlands and waters. Once on-site, the potential jurisdictional wetlands and waters were surveyed to determine the presence of any wetlands or waters under the jurisdiction of the USACE, California Department of Fish and Wildlife (CDFW), and/or Regional Water Quality Control Board (RWQCB). A combination of vehicular and pedestrian surveys were performed at all pole locations and project access roads within the PSA. Features were evaluated for potential state and federal jurisdiction under Section 401 and 404 of the Clean Water Act (CWA) and/or CFGC Sections 1600-1602. The location of each feature was recorded using a handheld GPS unit and stream center-lines were digitized using GIS. Photographs were taken of all features within the PSA. Detailed methods of the jurisdictional waters and wetlands survey are presented in the *TL 6975 Final Memo* included in Appendix C Jurisdictional Delineation Report for the SDG&E TL 6975 Escondido to San Marcos New 69 kV Project.

2.5.1 U.S. Army Corps of Engineers and Regional Water Quality Control Board Jurisdictional Delineations

Non-wetland waters under the jurisdiction of the U.S. Army Corps of Engineers (USACE) and Regional Water Quality Control Board (RWQCB) were delineated based on the presence of ordinary high water mark (OHWM) indicators, as defined in *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (Lichvar and McColley 2008). Changes in particle size, water staining, changes in vegetation cover/species, changes in slope from the active floodplain to the low terrace, shelving, and discernible bed and bank were the most common indicators used to delineate OHWMs in the survey area.

Under California's Porter-Cologne Water Quality Control Act, the RWQCB regulates the discharge of waste to waters of the state. The term *waters of the state* is defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." This definition of waters of the state is broader than that for waters of the United States in that all waters are considered to be a water of the state regardless of circumstances or condition. During the jurisdictional delineation, RWQCB jurisdiction was mapped identical to USACE jurisdiction because all jurisdictional features were considered to have a connection to a Traditional Navigable Water or Relatively Permanent Water; none were considered isolated features.

Features were also assessed for the potential to support jurisdictional wetlands. As described in the *Wetland Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008) the following three criteria normally must be fulfilled in order to classify an area as a jurisdictional USACE wetland: (1) a predominance of hydrophytic vegetation, (2) the presence of hydric soils, and (3) the presence of wetland hydrology.

2.5.2 CDFW Jurisdictional Delineation

Pursuant to CFGC, Chapter 6, Section 1600, et seq., CDFW has jurisdiction that includes the "…bed, channel or bank of any river, stream or lake designated by the department in which there is any time an existing fish or wildlife resource or from which these resources derive benefit…" During the jurisdictional delineation, the CDFW jurisdiction over streams was determined to extend from the top of bank to the opposite top of bank (bank-to-bank) or to the limits of riparian vegetation if this vegetation extends beyond the top of the banks, whichever is greater.

3. EXISTING CONDITIONS

3.1 REGULATORY SETTING

3.1.1 Federal

Several regulations have been established by federal, state, and local agencies to protect and conserve biological resources. The discussion below provides a brief overview of agency regulations that may be applicable to the resources that occur within the PSA and their respective requirements. The final determination of whether permits are required is made by the regulating agencies.

Federal Endangered Species Act of 1973

The FESA protects plants and wildlife that are listed as endangered or threatened by the USFWS and the National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service. The FESA prohibits take of endangered wildlife, where *take* is defined as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (16 United States Code [USC] Section 1532[19]; see also, 16 USC 1538). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any listed plant on federal land and removing, cutting, digging up, damaging, or destroying any listed plant on non-federal land in knowing violation of any law (16 USC Section 1538(a)(2)(B)).

Under Section 7 of the FESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect a listed species (including plants) or its critical habitat. Through consultation and the issuance of a Biological Opinion, the USFWS may issue an incidental take statement, allowing take of the species that is incidental to another authorized activity, provided that the action would not jeopardize the continued existence of the species. Section 10 of the FESA provides for issuance of incidental take permits to private parties with the development of a habitat conservation plan (HCP), such as the SDG&E Natural Communities Conservation Plan (NCCP) and Low-Effect HCP for Quino Checkerspot Butterfly (QCB).

Migratory Bird Treaty Act, as Amended (16 USC 703-711)

The federal Migratory Bird Treaty Act (16 USC Section 703(a)) first enacted in 1916, prohibits any person, unless permitted by regulation, to:

> …pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, import, cause to be shipped, exported, or imported, deliver for transportation, transport, cause to be transported, carry, or cause to be carried or receive for shipment, transportation, carriage, or export any migratory bird, any part, nest, or egg of any such

> bird, or any product…composed in whole or part, of any such bird or any part, nest, or egg thereof…

The list of migratory birds includes nearly all migratory bird species native to the U.S. The Migratory Bird Treaty Reform Act of 2004 further defined species protected under the act and excluded all non-native species. The statute was extended in 1974 to include parts of birds, as well as eggs and nests.

Clean Water Act of 1977 (Public Law 95-217)

The purpose of the CWA is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." (33 USC 1251(a)). Section 404 of the CWA prohibits the discharge of dredge or fill material into waters of the United States without a permit from the USACE. The definition of *waters of the United States* includes rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands (33 CFR 328.3[a]). Wetlands are defined as those areas "that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR Section 328.3[b]). The U.S. Environmental Protection Agency has veto authority over the USACE's administration of the Section 404 program and may override a USACE decision with respect to permitting.

When a project may create impacts on waters of the United States, the project requires a permit or a waiver. Substantial impacts on waters of the United States may require an Individual Permit. Projects that only minimally affect waters of the United States may meet the conditions of one of the existing Nationwide Permits, provided the permit's other respective conditions are satisfied. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions, and any federal action affecting waters. For the Proposed Project, this certification or waiver would need to be issued by the San Diego RWQCB.

Bald and Golden Eagle Protection Act, as Amended (16 USC 668-668c)

The Bald and Golden Eagle Protection Act (BGEPA) (16 USC Section 668) provides protection for both the bald eagle (*Haliaeetus leucocephalus*) and the golden eagle (*Aquila chrysaetos*) by prohibiting the take of either of these species, including their parts, nests or eggs. The BGEPA defines take as to "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb" any bald or golden eagle. The BGEPA is administered by the USFWS, and limited take authorizations are granted for qualifying activities. Persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner any bald eagle… [or golden eagle], alive or dead, or any part, nest, or egg thereof" without prior approval are subject to criminal penalties.

3.1.2 State

California Environmental Quality Act

CEQA was enacted in 1970 to provide for full disclosure of environmental impacts to the public before issuance of a discretionary permit by a public agency. The CEQA analysis includes review of species that are listed under the FESA or CESA or are designated as sensitive. Sensitive species include, but are not limited to, wildlife Species of Special Concern (SSC) listed by CDFW and plant species in the CNPS's CRPR List 1A (presumed extinct), List 1B (rare, threatened, or endangered in California and elsewhere; eligible for state listing) or List 2 (rare, threatened or endangered in California but more common elsewhere; eligible for state listing).

California Endangered Species Act

The CESA prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. Take is defined in CFGC Section 86 as to "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take incidental to otherwise lawful projects. CDFW administers CESA and authorizes take through permits issued under CFGC Section 2081, or through a consistency determination issued under Section 2080.1 for projects with federal take authorizations.

State Fully Protected Species

The State of California designated species as fully protected (FP) prior to the creation of CESA and FESA. Lists of FP species were initially developed to provide protection to species that were rare or faced possible extinction/extirpation. Most FP species have since been state listed as threatened or endangered species. Under CFGC Section 4700, fully protected mammals may not be taken or possessed at any time.

In September 2011, the Natural Community Conservation Planning Act was amended to permit the incidental take of 36 fully protected species pursuant to an NCCP approved by CDFW (CFGC Section 2835). The amendment gives FP species the same level of protection as endangered and threatened species under the Natural Community Conservation Planning Act. (Fish and Game Code Section 2835). The Natural Community Conservation Planning Act, enacted in the 1990s, authorizes the incidental take of species "whose conservation and management" is provided for in a conservation plan approved by CDFW.

California Species of Special Concern

In addition to formal listing under FESA and CESA, certain species receive additional consideration by CDFW and lead agencies during the CEQA process. Species that may be considered for review are included on a list of SSC developed by CDFW. The list tracks species in California whose numbers, reproductive success, or habitat may be in decline.

California Fish and Game Code

Pursuant to CFGC Sections 1600–1616, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife. The California Fish and Game Commission defines a *stream* (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." (14 CCR 1.72). The Commission's definition of *lake* includes "natural lakes or man-made reservoirs." (14 CCR 1.56). CDFW limits of jurisdiction include the maximum extents of the uppermost bank-to-bank distance or riparian vegetation dripline. CDFW jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife.

The State of California has incorporated the protection of birds in CFGC Sections 3503, 3503.5, 3513, and 3800.

California Native Plant Protection Act

The Native Plant Protection Act of 1977 (CFGC Sections 1900–1913) includes provisions that prohibit the taking of endangered or rare native plants. CDFW administers the law and generally regards as rare many plant species included on CRPR 1A, 1B, 2A, and 2B of the CNPS Inventory of Rare and Endangered Vascular Plants of California. In addition, sometimes CRPR 3 and 4 plants are considered rare if the population has local significance in the area and is impacted by the project.

Section 1913(b) allows for the incidental removal of endangered or rare plant species within a right-of-way (ROW) to allow a public utility to fulfill its obligation to provide service to the public. CDFW must be given 10 days prior notice to salvage the plants.

Porter-Cologne Water Quality Control Act of 1966

The Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.) mandates that activities that may affect waters of the state be regulated to attain the highest water quality. The State Water Resources Control Board and the local RWQCB are the relevant permitting agencies. The RWQCB provides regulations for a "non-degradation policy" that are especially protective of waters with high quality. Porter-Cologne reserves the right for the State of California to regulate activities that could affect the quantity and/or quality of surface and/or ground waters, including isolated wetlands, within the state. Waters of the state include isolated waters that are no longer regulated by the USACE. If the project is proposed to discharge into waters of the state, a Waste Discharge Report must be filed.

California Natural Community Conservation Planning Program

The California NCCP program was initiated in 1991 and is administered by CDFW. It is a cooperative effort by CDFW and numerous public and private partners that takes a broad-scale,

ecosystem approach to planning for the protection and perpetuation of the biological diversity throughout California by protecting both habitats and the species within these habitats, while also accommodating compatible land use.

An NCCP identifies and provides for the regional protection of plants, wildlife, and their habitats, while allowing compatible and appropriate economic activities in the region. By including key interests in the process and by working with landowners, environmental organizations, and other interested parties, an NCCP plan provides the framework for a local agency to oversee the numerous activities that compose the development of a conservation plan. CDFW and USFWS provide the necessary support, direction, and guidance to NCCP participants during the NCCP development and implementation. Within California, there are currently 23 active NCCPs covering more than 11 million acres, and several draft NCCP plans are pending approval.

SDG&E has a current, agency-approved NCCP plan called the *SDG&E Subregional Natural Community Conservation Plan* (SDG&E 1995). This plan is discussed in detail in the following section.

3.2 LOCAL

SDG&E is a public utility regulated by the CPUC. Local governments are precluded from regulating public utilities through their zoning laws, land use laws, ordinances, and other police powers by the exclusive jurisdiction of CPUC. The Proposed Project is not subject to local discretionary regulations related to biological resources because the California Public Utilities Commission (CPUC) has exclusive jurisdiction over the siting, design, and construction of the Proposed Project. The following analysis of local regulations relating to biological resources is provided for informational purposes.

SDG&E Subregional Natural Community Conservation Plan

In December 1995, the USFWS and CDFW approved the SDG&E Subregional NCCP, developed in coordination with such agencies that address potential impacts on species and habitat associated with SDG&E's ongoing installation, use, maintenance, and repair of its gas and electric systems, and typical expansion to those systems throughout much of SDG&E's existing service territory. As a part of the SDG&E Subregional NCCP, SDG&E has been issued incidental take permits (Permit PRT-809637) by USFWS and CDFW for 110 Covered Species. The SDG&E Subregional NCCP was developed by following the multiple species and habitat conservation planning approach. The SDG&E Subregional NCCP includes operational protocols that apply to construction and operation and maintenance activities. In approving the NCCP, USFWS and CDFW determined that compliance with the NCCP avoids potential impacts, provides appropriate mitigation where such impacts are unavoidable, and ensures the protection and conservation of Covered Species.

As stated in the SDG&E Subregional NCCP Implementing Agreement, the SDG&E Subregional NCCP "is independent of other NCCP/HCPs and the Covered Species for which incidental take is authorized under the take authorizations is not dependent upon the implementation of such plans." SDG&E has adopted appropriate project design features and intends to implement applicable Operational Protocols from Section 7.1 of the NCCP to minimize potential construction-related impacts of the Proposed Project.

County of San Diego General Plan

The *County of San Diego General Plan* (2011) provides direction for future growth in the unincorporated areas of San Diego County, and provides policies related to land use, mobility, conservation, housing, safety, and noise. The *County of San Diego General Plan Land Use Element* provides a framework for managing future development in the County so that it is thoughtful of the existing character of the current communities and the special-status natural resources within the County.

The *County of San Diego General Plan* contains the following relevant policies:

> *Conservation and Open Space (COS) Policy COS-1.2: Minimize Impacts.* Prohibit private development within established preserves. Minimize impacts within established preserves when the construction of public infrastructure is unavoidable.
>
> *Conservation and Open Space Policy COS-1.3: Management.* Monitor, manage, and maintain the regional preserve system facilitating the survival of native species and the preservation of healthy populations of rare, threatened, or endangered species.

San Diego Multiple Species Conservation Program (Southwestern San Diego County)

Under the Natural Community Conservation Planning Act of 1991, an MSCP has been developed for southwestern San Diego County in order to protect 85 species in the area. The Multiple Species Conservation Program (MSCP) is one of three subregional habitat planning efforts in San Diego County. The other two—the Multiple Habitat Conservation Program (MHCP) and the North County MSCP—are described in the following subsections.

The San Diego MSCP was approved in 1997 and is the result of a joint planning effort between the County of San Diego and the cities in the southwestern part of the county, including San Diego. The City of San Diego adopted its own MSCP Subarea Plan in 1997 to implement the regional MSCP. New development must comply with the boundaries established within the plan, and guidelines for development include restoration of coastal sage scrub when disturbed. In addition, the MSCP Subarea Plan includes the policies and design guidelines regarding utilities.

San Diego Multiple Habitat Conservation Program

The Multiple Habitat Conservation Program (MHCP) is a comprehensive conservation planning process that addresses the needs of multiple plant and animal species in northwestern San Diego

County. The MHCP encompasses the cities of Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, Solana Beach, and Vista. Its goal is to conserve approximately 19,000 acres of habitat, of which roughly 8,800 acres (46 percent) are already in public ownership and contribute toward the habitat preserve system for the protection of more than 80 rare, threatened, or endangered species. The MHCP encompasses 111,908 acres (29,962 acres of natural habitat). NCCP permits are issued to participating cities upon completion and CDFW approval of their individual subarea plans. Subarea plans describe the specific policies each city institutes for the MHCP.

The MHCP contains the overall conservation strategy for the subregion and documents the conservation actions that collectively will guarantee the protection of species covered by individual subarea plans. The subregional MHCP also describes the institutional mechanisms to coordinate MHCP implementation among the cities and other agencies. The subregional MHCP does not by itself authorize the take of biological resources and does not receive a permit. Permits or authorizations to take biological resources will be granted to individual cities preparing adequate subarea plans, which describe the specific conservation and management actions each city will take to implement the goals, guidelines, and standards of the MHCP.

A specific policy of the MHCP is to direct land development to areas outside the Focused Planning Area (FPA)[1] in exchange for conservation inside, resulting in the creation of a preserve system. The MHCP preserve system is intended to protect viable populations of native plant and animal species and their habitats in perpetuity, while accommodating continued economic development and quality of life for residents of North County.

Portions of the Proposed Project is anticipated to occur within limits of the following subarea plans:

- City of Carlsbad Subarea Plan, approved in 2004;
- City of San Marcos Subarea Plan, which is still currently in draft form;
- City of Escondido Subarea Plan, which is still currently in draft form;

North County Multiple Species Conservation Program

The North County Multiple Species Conservation Program (North County Plan) would extend the County's MSCP into the northwestern areas of the County. The draft North County Plan underwent a public review in 2009. Comments received during the public review period are now

[1] The FPAs and percent conservation estimates provided in the MHCP were used to analyze the levels of biological conservation expected throughout the MHCP area. Some lands within FPAs have been or will be dedicated for open space and habitat preservation. The FPAs are represented by a combination of "hardline" preserves, indicating lands that will be conserved and managed for biological resources, and "softline" planning areas, within which preserve areas will ultimately be delineated based on further data and planning.

being used to revise the draft North County Plan. The County and its consultants have also initiated work on the environmental documents that will accompany the draft North County Plan.

The North County Plan area encompasses 294,849 acres in and around the unincorporated communities of Bonsall, De Luz, Fallbrook, Harmony Grove, Rancho Santa Fe, Lilac, Pala, Pauma Valley, Rainbow, Ramona, Rincon Springs, Twin Oaks Valley, and Valley Center. In order to maintain biodiversity and ecosystem health, the draft North County Plan incorporates goals including biological goals, economic goals, and social goals. The North County Plan has designated pre-approved mitigation areas (PAMAs). These are areas with high biological value in which conservation will be encouraged by providing mitigation ratios that favor developing outside of the PAMA and mitigating inside the PAMA.

The unincorporated areas of the Proposed Project, primarily within the middle of the new TL 6975, occur within areas included in the draft North County Plan.

County of San Diego Tree Ordinance

The San Diego Regulatory Code of Ordinances, Title 7, Division 1, Chapter 5 regulates the planting, trimming and removal of trees on County-owned property and County highways. However, the Proposed Project is anticipated to occur within SDG&E's ROW, and no conflicts should occur with any other conservation plans or County tree ordinances. SDG&E is a public utility regulated by the CPUC. Local governments are precluded from regulating public utilities through their zoning laws, land use laws, ordinances, and other police powers by the exclusive jurisdiction of CPUC.

Other Preserve Lands

The PSA traverses a number of lands preserved for conservation purposes (Appendix A, Figure 3: Preserves and Critical Habitat). This includes lands permanently protected as part of regional habitat conservation planning and includes the County-owned Sage Hill Preserve, the Center for Natural Lands Management (CNLM)-managed University Commons, the Rancho Dorado HOA Preserve, Carlsbad Raceway Open Space Preserve, San Elijo Hills Open Space, and the Carrillo Ranch Reserve. The Proposed Project would be located within SDG&E's ROW within these conserved lands.

3.3 BIOLOGICAL RESOURCE SETTING

San Diego County is a biologically diverse region that supports rare and declining native habitats, numerous federally and state-listed plant and animal species, and an increasing amount of federally designated critical habitat for listed species (Appendix A, Figure 3: Preserves and Critical Habitat). The Proposed Project is in the coastal hills of San Diego County's northern valley. Surrounding land use consists of residential neighborhoods, industrial facilities, open space and preserves, and commercial and vacant lands. TL 6975 ranges in elevation from approximately 500 feet to 1,150 feet above mean sea level (AMSL).

3.4 VEGETATION COMMUNITIES

The approximately 680.3-acre PSA traverses diverse terrain and supports a variety of vegetation communities and land cover types, which were classified according to Oberbauer (et al. 2008), which closely follows Holland (1986). The approximate acreages of each of the vegetation communities and land cover types that were mapped within the PSA are summarized in Table 3: Vegetation Communities within the PSA. Vegetation mapping is provided in Appendix A, Figure 4: Vegetation and Special-Status Species.

3.4.1 Disturbed Habitat

Disturbed habitat consists of areas supporting densely to sparsely distributed weedy, non-native vegetation, compacted dirt roads, and other areas do not support vegetation due to human interference. In the PSA, disturbed habitat describes dirt roads and areas supporting non-native herbaceous species such as fennel (*Foeniculum vulgare*), redstem filaree (*Erodium cicutarium*), longbeak filaree (*Erodium botrys*), wild oat (*Avena fatua*), tocalote (*Centaurea melitensis*), and African fountain grass (*Pennisetum setaceum*). Some of the disturbed habitat in the PSA occurred in areas that appeared to have been used for agricultural purposes in the past.

3.4.2 Urban/Developed

Urban/developed areas consist of pavement, asphalt, permanent or semi-permanent structures, hardscape, and associated landscaping. These areas are typically devoid of vegetation with the exception of landscaped areas. Within the PSA, urban/developed areas consisted of navigational roads, gravel roads, private residences, buildings, and associated landscaping.

3.4.3 Orchard/Vineyard

Orchard describes areas supporting the cultivation of non-native plants, such as fruit trees. These trees are typically artificially irrigated and the understory is kept clear of vegetation or support scattered non-native herbaceous plant species. Within the PSA orchards supported cultivated ornamental bushes including book-leaf mallee (*Eucalyptus kruseana*), citrus (*Citrus* sp.), and waxflower (*Chamelaucium* sp.).

3.4.4 Intensive Agriculture

Intensive agriculture includes dairies, nurseries, chicken ranches, and open spaces used to keep livestock, such as corrals. Agricultural areas on site included corrals and associated unvegetated areas. Some of these areas support weedy plant species similar to those listed under Disturbed Habitat.

Table 3: Vegetation Communities within the PSA

Oberbauer Code	Vegetation Community Name	Approximate Acreage in PSA
11300	Disturbed Habitat	124.0
12000	Urban/Developed	247.9
18100	Orchard/Vineyard	10.7
18300	Intensive Agriculture	0.8
32500	Diegan Coastal Sage Scrub*	103.5
	Diegan Coastal Sage Scrub-Burned*	0.6
	Diegan Coastal Sage Scrub-Disturbed*	18.7
37G00	Coastal Sage-Chaparral Transition*	125.6
37C30	Southern Maritime Chaparral*	20.8
	Southern Maritime Chaparral-Burned*	1.0
42200	Non-native Grassland*	9.9
52400	Emergent Wetlands*	0.6
52410	Coastal and Valley Freshwater Marsh*	0.2
61300	Southern Riparian Forest*	3.9
61310	Southern Coast Live Oak Riparian Forest*	0.7
63310	Mule Fat Scrub*	0.1
63320	Southern Willow Scrub*	0.4
	Southern Willow Scrub-Disturbed*	0.0
64140	Fresh Water	0.2
71660	Coast Live Oak Woodland*	5.9
	Coast Live Oak Woodland-Disturbed*	0.3
79000	Non-native Woodland	1.0
79100	Eucalyptus Woodlands	3.6
Grand Total		**680.3**
* Indicates a sensitive natural community		

3.4.5 Diegan Coastal Sage Scrub

Diegan coastal sage scrub is described as being composed of low-growing, aromatic, drought-deciduous, soft-woody shrubs that have an average height of 3 to 4 feet. This habitat is typically found on sites with steep, dry slopes or on clay-rich soils that are slow to release stored water. These sites often include drier south and west facing slopes and occasionally north facing slopes, where the community can act as a successional phase of chaparral development.

In the PSA, Diegan coastal sage scrub supported California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), California buckwheat (*Eriogonum fasciculatum*), laurel sumac (*Malosma laurina*), deerweed (*Acmispon glaber* var. *brevialatus*), spreading goldenbush (*Isocoma menziesii*), California encelia (*Encelia californica*), blue-eyed-grass (*Sisyrinchium bellum*), fascicled tarplant (*Deinandra fasciculata*), windmill catchfly (*Silene gallica*), and dotseed plantain (*Plantago erecta*).

The abundance of non-native plant species, as well as the sparse distribution of typically dominant shrub species, are the characteristics that distinguish Diegan coastal sage scrub-disturbed from undisturbed Diegan coastal sage scrub. In the PSA Diegan coastal sage scrub-disturbed was predominated by black sage, California buckwheat, or spreading goldenbush. Other plants commonly found in Diegan coastal sage scrub-disturbed included shortpod mustard (*Hirschfeldia incana*), California sagebrush, prickly Russian thistle, wild oat, fascicled tarplant, and coyote bush.

Portions of Diegan coastal sage scrub occurring in the southwestern portion of the PSA burned during the Poinsettia Fire in 2014. In the vegetation maps these areas are labeled Diegan coastal sage scrub-burned. Shrubs in Diegan coastal sage scrub-burned were re-sprouting and included laurel sumac, spreading goldenbush, California sagebrush, and wild cucumber (*Marah macrocarpa*).

3.4.6 Coastal Sage-Chaparral Transition

Coastal sage-chaparral transition consists of a mixture of herbaceous, suffrutescent, and shrubby species that forms a community with features of both coastal sage scrub and chaparral. It appears to be a post-fire successional community.

In the PSA, coastal sage-chaparral scrub is dominated by chamise and California sagebrush and occurred adjacent to Diegan coastal sage scrub. This vegetation community also supports coyote bush (*Baccharis pilularis*), black sage, sawtooth goldenbush, and laurel sumac.

3.4.7 Southern Maritime Chaparral

Southern maritime chaparral is typically a low-growing chaparral with open vegetation and occurs in areas within the fog belt. This habitat type is dominated by wart-stem-lilac (*Ceanothus verrucosus*) with Del Mar manzanita (*Arctostaphylos glandulosa* ssp. *crassifolia*) often occurring as a co-dominant.

In the PSA, southern maritime chaparral was dominated by wart-stem-lilac and for the most part consisted of a tall, impenetrable stand of woody shrubs. Other plants detected in this vegetation community included chamise (*Adenostoma fasciculatum*), black sage, sawtooth goldenbush (*Hazardia squarrosa*), mission manzanita (*Xylococcus bicolor*), bushrue (*Cneoridium dumosum*), white flowering currant (*Ribes indecorum*), Nuttall's snapdragon (*Antirrhinum*

nuttallianum), heartleaf bush penstemon (*Keckiella cordifolia*), California brickellbush (*Brickellia californica*), slender sunflower (*Helianthus gracilentus*), and blue dicks (*Dichelostemma capitatum*).

Portions of southern maritime chaparral occurring in the southwestern portion of the PSA burned during the Poinsettia Fire in 2014. In the vegetation maps these areas are labeled southern maritime chaparral-burned. Shrubs in southern maritime chaparral-burned were re-sprouting and these areas supported additional species including large flower phacelia (*Phacelia grandiflora*), Fendler's meadow-rue (*Thalictrum fendleri*), and pineapple weed (*Matricaria discoidea*).

3.4.8 Non-native Grassland

Non-native grassland consists of a dense to sparse cover of annual grasses with flowering culms measuring approximately one meter high, which may include numerous native wildflowers, particularly in years of high rainfall (Holland 1986). These annuals germinate with the onset of the rainy season and set seeds in the late spring or summer.

In the PSA, non-native grassland supports wild oat, ripgut brome (*Bromus diandrus*), shortpod mustard, fascicled tarplant, Crete weed (*Hedypnois cretica*), prickly Russian thistle, and spreading goldenbush. Some of the non-native grasslands in the survey area occurred in areas that appeared to have been used for agricultural purposes in the past.

3.4.9 Emergent Wetlands

Emergent wetlands occur in areas with relatively persistent wetlands hydrology and shallow water conditions, often in previously disturbed areas where wetlands are emerging. Although the vegetation community is directly affected by flooding, the presence of emergent wetlands is typically controlled by the presence of groundwater.

Emergent wetland in the PSA supports spikerush (*Eleocharis* sp.), annual saltmarsh aster (*Symphyotrichum subulatum*), rabbit foot beard grass (*Polypogon monspeliensis*), ditch beard grass (*Polypogon interruptus*), and great marsh evening primrose. This vegetation community occurred within a detention basin.

3.4.10 Coastal and Valley Freshwater Marsh

Coastal and valley freshwater marsh occurs in areas flooded by freshwater that lack a significant current. It is typically dominated by perennial, emergent monocots typically measuring 13 to 16 feet in height.

In the PSA coastal and freshwater marsh supported southern cattail (*Typha domingensis*), California bulrush (*Schoenoplectus californicus*), great marsh evening primrose (*Oenothera elata*), and curly dock (*Rumex crispus*). This vegetation community occurred within a detention basin.

3.4.11 Southern Riparian Forest

Southern riparian forest is a winter-deciduous forest dominated by moderately tall broadleafed trees with a closed or moderately closed canopy. This vegetation community is typically found along streams and rivers.

Southern riparian forest in the PSA is predominated by red willow (*Salix laevigata*), mule fat (*Baccharis salicifolia*), Goodding's black willow (*Salix gooddingii*), San Diego marsh-elder (*Iva hayesiana*), great marsh evening primrose, western ragweed (*Ambrosia psilostachya*), and yerba mansa (*Anemopsis californica*). This vegetation community occurred along streams and canyon bottoms.

3.4.12 Southern Coast Live Oak Riparian Forest

Southern coast live oak riparian forest is a dense forest dominated by coast live oak. It has a closed or almost closed canopy and has an understory that is typically richer in herbs and poorer in shrubs compared to other riparian communities. This vegetation community occurs in association with bottomlands and the outer floodplains along larger streams.

In the PSA this area had burned recently. The coast live oaks were still alive and present but the understory consisted mostly of non-native species including ripgut brome, blessed milkthistle (*Silybum marianum*), soft brome (*Bromus hordeaceus*), scarlet pimpernel (*Anagallis arvensis*), tocalote, and tumble mustard (*Sisymbrium altissimum*).

3.4.13 Mule Fat Scrub

Mule fat scrub is a depauperate, tall, herbaceous riparian scrub strongly dominated by mule fat. This early seral community is maintained by frequent flooding. It is usually found in intermittent stream channels with fairly coarse substrate and moderate depth to the water table.

In the PSA, mule fat consisted of one small narrow stand of mule fat shrubs adjacent to detention basin supporting coastal freshwater marsh.

3.4.14 Southern Willow Scrub

Southern willow scrub is described as dense, broadleafed, winter-deciduous riparian thickets dominated by several willow species. Most stands are too dense to allow much understory development. This early seral community requires repeated flooding to prevent succession to southern cottonwood-sycamore riparian forest. It is usually found in loose, sandy or fine gravelly alluvium deposited near stream channels during flood flows.

In the PSA southern willow scrub supported young red willow within a detention basin.

The abundance of non-native plant species, as well as the sparse distribution of typically dominant shrub species, are the characteristics that distinguish southern willow scrub-disturbed from undisturbed southern willow scrub. In the survey areas, disturbed southern willow scrub was supported arroyo willow and Peruvian pepper tree. This vegetation community occurred adjacent to non-native woodland along the margins of a pond.

3.4.15 Fresh Water

Fresh water refers to a body of water that is present year-round, such as a lake or a pond. Within the PSA fresh water consists of a pond located along a drainage. This pond supported water at the time of the survey.

3.4.16 Coast Live Oak Woodland

Coast live oak is the dominant tree occurring in coast live oak woodland, reaching 30 to 80 feet in height. The shrub layer is usually poorly developed, and the herb layer is continuous and dominated by non-native grasses. This community typically occurs on north-facing slopes and shaded ravines.

In the PSA, coast live oak woodland was dominated by dense coast live oaks. The understory supported blessed milkthistle, tumble mustard, toyon (*Heteromeles arbutifolia*), coastal woodfern (*Dryopteris arguta*), ripgut brome, soft brome, sheperd's purse (*Capsella bursa-pastoris*), and sticky mouse-ear chickweed (*Cerastium glomeratum*).

The abundance of non-native tree species is the characteristic that distinguishes disturbed coast live oak woodland from undisturbed coast live oak woodland. In the survey areas, disturbed coast live oak woodland supported coast live oak, red gum (*Eucalyptus camaldulensis*), and European olive (*Olea europaea*). The understory consisted of ripgut brome, soft brome, tumble mustard, and shortpod mustard.

3.4.17 Non-native Woodland

Non-native woodland describes a woodland composed of non-native trees that were planted, typically for landscaping purposes, but are not maintained or irrigated. In the PSA, non-native woodland supported Peruvian pepper tree (*Schinus molle*), European olive, and to a lesser degree, red gum and coast live oak.

3.4.18 Eucalyptus Woodland

Eucalyptus woodland is similar to non-native woodland but consists of a monotypic stand of eucalyptus trees (*Eucalyptus* spp.). Eucalyptus woodlands with a dense canopy typically do not support vegetation in the understory while woodlands in which trees are scattered may support a shrubby or herbaceous understory.

3.5 SPECIAL-STATUS PLANTS

Special-status plant species include those species listed by the USFWS and CDFG as endangered, threatened, proposed, or candidate species, and those listed as sensitive or rare. In addition, sensitive plant species include those occurring on the CNPS Inventory of Rare and Endangered Vascular Plants of California (2001). Based on the literature review and field surveys conducted for the Proposed Project, special-status plant species documented from within 5-miles of the PSA were evaluated for their potential to occur (Appendix D Special-Status Plant and Wildlife Species Known or with Potential to Occur in the Survey Area). One special-status plant species was determined to have moderate potential to occur; nine special-status plant species were determine to have low potential to occur, and twelve special-status plant species are not expected to occur. Thirteen special-status plant species were detected within the PSA during spring 2016 surveys. These species include ashy spike-moss (*Selaginella cinerascens*), California adolphia (*Adolphia californica*), golden-rayed pentachaeta (*Pentachaeta aurea* ssp. *aurea*), Nuttall's scrub oak (*Quercus dumosa*), Orcutt's brodiaea (*Brodiaea orcuttii*), Palmer's grapplinghook (*Harpagonella palmeri*), San Diego marsh-elder (*Iva hayesiana*), San Diego sagewort (*Artemisia palmeri*), San Diego sunflower (*Bahiopsis laciniata*), small-flowered microseris (*Microseris douglasii* ssp. *platycarpha*), summer holly (*Comarostaphylis diversifolia* ssp. *diversifolia*), wart-stemmed ceanothus (*Ceanothus verrucosus*), and western dichondra (*Dichondra occidentalis*). Special-status plant species locations are displayed in Appendix A, Figure 4: Vegetation and Special-Status Species.

Other species addressed in Appendix D Special-Status Plant and Wildlife Species Known or with Potential to Occur in the Survey Area, were determined to have either a low potential for occurrence or are not expected to occur within the PSA based on lack of observations during surveys and lack of suitable microhabitat conditions within the PSA. Two special-status plants that were reported in the constraints report as occurring in the PSA were determined by ICF botanists to have been misidentified. San Diego gum plant (*Grindelia hallii*) was reported to have occurred near White Sands drive; however this species is restricted almost exclusively to the Julian-Cuyamaca-Laguna mountain area, and the observation was confirmed to be the more common and widespread gumplant species *Grindelia camporum.* Ramona horkelia (*Horkelia truncata*) was reported near San Elijo Road and Boundary Street by CNDDB within 5 miles of the PSA; this species was confirmed to be the more common and widespread species Wrangel's cinquefoil (*Drymocallis glandulosa* var. *wrangelliana*). Descriptions of the special-status plant species that were observed within the PSA follow.

3.5.1 Thread-leaved Brodiaea

Thread-leaved brodiaea, a federally threatened, state endangered, and CRPR 1B1 species, is a bulbiferous perennial herb found in heavy clay soils below 2000 feet in coastal sage scrub, cismontane woodlands, valley and foothill grassland, vernal pools, and chaparral. It flowers from March to June. USFWS Critical Habitat for thread-leaved brodiaea was designated on December 13, 2005 and is within 1 mile off the PSA. It is threatened by development, agriculture, biocides,

vehicles, and mechanical equipment. Threats also include potential hybridization with *Brodiaea orcuttii* and *Brodiaea terrestris*. Appropriate suitable habitat for this species occurs within the PSA. Plant surveys within the PSA during an appropriate time of year for this species were negative, however the surveys were conducted during a drought year at the end of a succession of drought years, and corms are known to not flower every year. Therefore, this species is determined to have a moderate potential to occur despite negative survey results.

3.5.2 Ashy Spike-Moss

Ashy spike-moss, a CRPR 4.1 species, is a creeping spike-moss typically found in undisturbed chaparral and Diegan coastal sage scrub (Reiser 2001). This species is found in several small patches on exposed rock outcrops and open soils in the western portion of the survey area.

3.5.3 California Adolphia

California adolphia, a CRPR 2B.2 species, is a perennial deciduous shrub in the buckthorn family (*Rhamnaceae*) that flowers December through May. This species occurs primarily within Diegan coastal sage scrub and is threatened by urbanization, road construction, non-native plants, and grazing. Approximately 87 individuals were detected in the northwestern portion of the PSA. Potential habitat for California adolphia occurs between structures 103 and 104, where surveys could not be conducted due to non-SDG&E active construction.

3.5.4 Golden-Rayed Pentachaeta

Golden-rayed pentachaeta, a CRPR 4.2 species, is an annual herb with yellow ray flowers and orange disk flowers that typically grows around grasslands and coastal sage scrub (Reiser 2001). Approximately 271 individuals were detected within the western portion of the PSA.

3.5.5 Nuttall's Scrub Oak

Nuttall's scrub oak, a CRPR 1B.1 species, is a perennial evergreen shrub in the oak family (Fagaceae) that grows within coastal chaparral. Several large stands of this species were detected within the western portion of the PSA. Potential habitat for Nuttall's scrub oak occurs between structures 103 and 104, where surveys could not be conducted due to non-SDG&E active construction.

3.5.6 Orcutt's Brodiaea

Orcutt's brodiaea, a CRPR 1B.1 and a SDG&E NCCP covered species, is a corm-based lily/onion relative with lavender flowers, generally occurring in vernally moist grasslands and the margins of vernal pools (Reiser 2001). This species is extremely threatened by development, foot traffic, grazing, non-native plants, military SDG&E activities, vehicles, road construction, road maintenance, and dumping. Most historical occurrences of this species within the San Marcos area have been extirpated due to development. Approximately 147 individuals were observed within the southwestern portion of the PSA. Potential habitat for Orcutt's brodiaea

occurs between structures 103 and 104, where surveys could not be conducted due to non-SDG&E active construction.

3.5.7 Palmer's Grapplinghook

Palmer's grapplinghook, a CRPR 4.2 and a SDG&E NCCP covered species, is a small herbaceous annual in the borage family (Boraginaceae) that flowers from March through May. This species occurs on clay soils within openings of chaparral and coastal scrub and is threatened by development, trampling, non-native plants, and agriculture. Approximately 300 individuals were detected in the northwestern portion of the PSA.

3.5.8 San Diego Marsh-Elder

San Diego marsh-elder, a CRPR 2B.2 species, is a perennial subshrub in the sunflower family (Asteraceae) that flowers from April through October. This species occurs in marshes, swamps, and playas and is threatened by waterway channelization, coastal development, vehicles, and non-native plants. Several individuals were detected in a riparian area in the western portion of the PSA.

3.5.9 San Diego Sagewort

San Diego sagewort, a CRPR 4.2 species, is a perennial, deciduous shrub in the sunflower family (Asteraceae) that flowers from February through September. This species favors sandy, mesic areas within chaparral, riparian scrub, and riparian woodland. San Diego sagewort is threatened by development and flood control projects. Approximately 56 individuals were detected in the eastern portion of the PSA. Potential habitat for San Diego sagewort occurs between structures 103 and 104, where surveys could not be conducted due to non-SDG&E active construction.

3.5.10 San Diego Sunflower

San Diego sunflower, a CRPR 4.2 species, is a perennial shrub in the sunflower family (Asteraceae*)* that flowers from February through August. This species typically occurs in chaparral and coastal scrub and is threatened by urbanization. One individual was detected in the northwestern portion of the PSA.

3.5.11 Small-Flowered Microseris

Small-flowered microseris, a CRPR 4.2 species, is a diminutive herbaceous annual in the sunflower family (Asteraceae) that flowers from March through May. This species occurs in openings within coastal scrub, valley and foothill grasslands, and vernal pools. This species is declining due to development and non-native plants. Approximately 15 individuals were detected in the western portion of the PSA.

3.5.12 Summer Holly

Summer holly is a perennial evergreen shrub in the heath family (Ericaceae) that flowers from April through June. This species typically occurs in southern mixed chaparral and southern maritime chaparral and is threatened by development, urbanization, and gravel mining. Approximately 57 individuals were observed in the western portion of the PSA. Potential habitat for summer holly occurs between structures 103 and 104, where surveys could not be conducted due to non-SDG&E active construction.

3.5.13 Wart-Stemmed Ceanothus

Wart-stemmed ceanothus, a CRPR 2B.2 and a SDG&E NCCP covered species, is a perennial evergreen shrub in the buckthorn family (Rhamnaceae) that flowers from December through May. This species occurs in coastal chaparral and is threatened by development. This species is found in extensive stands throughout the western half of the PSA. Potential habitat for wart-stemmed ceanothus occurs between structures 103 and 104, where surveys could not be conducted due to non-SDG&E active construction.

3.5.14 Western Dichondra

Western dichondra, a CRPR 4.2 species, is a prostrate, perennial, rhizomatous herb in the night shade family (Convolvulaceae) that flowers from January through July. This species typically grows at the base of shrubs in southern mixed chaparral and Diegan coastal sage scrub and is threatened by urbanization. Approximately 200 individuals were detected within the western portion of the PSA.

3.6 SPECIAL-STATUS WILDLIFE

Based on the literature review and field surveys conducted for the Proposed Project, special-status wildlife species documented from within 5-miles of the PSA were evaluated for their potential to occur. The probability of occurrence, presence, or absence of each of these species within the study area is detailed in Appendix D Special-Status Plant and Wildlife Species Known or with Potential to Occur in the Survey Area. Species that were observed or found to have a high potential to occur are described below. These species include coast horned lizard (*Phrynosoma blainvillii*), coast patch-nosed snake (*Salvadora hexalepis virgultea*), coastal California gnatcatcher (*Polioptila californica californica*), coastal whiptail (*Aspidoscelis tigris stehnegeri*, Cooper's hawk (*Accipiter cooperi*), Coronado skink (*Plestiodon skiltonianus interparietalis*), least Bell's vireo (*Vireo bellii pusillus*), Northwestern San Diego pocket mouse (*Chaetodipus fallax*), orangethroat whiptail (*Aspidoscelis hyperythra*), red diamond (*Crotalus ruber*), San Diego desert woodrat *(Neotoma lepida intermedia*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii),* southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), southwestern willow flycatcher (*Empidonax traillii extimus*), and yellow warbler (*Setophaga petechia*).

A habitat assessment for arroyo toad (*Anaxyrus californicus*) was conducted by ICF in the spring of 2016 to determine if suitable habitat for this species was present within the PSA. No suitable habitat was found and no protocol surveys for arroyo toad were recommended. The results of the habitat assessment are provided in Appendix E 2016 Field Habitat Assessment for Arroyo Toad (*Anaxyrus californicus*) for SDG&E TL 6975.

3.6.1 Federally-Listed Wildlife Species

Coastal California Gnatcatcher

The coastal California gnatcatcher is a small resident insectivorous species whose occurrence is strongly associated with sage scrub habitats found throughout southern California into northern Baja California, Mexico. Although coastal California gnatcatchers have a close association with sage scrub, this species has also been documented using coastal sage-chaparral scrub, chamise chaparral, and other habitat types (Campbell et al. 1998, Bontrager 1991). The USFWS listed this species as threatened in 1993. Critical habitat was designated for this species in 2000 and revised in 2007 (USFWS 2000b, USFWS 2007).

Historically, coastal California gnatcatchers range extended from southern Ventura County southward through Los Angeles, Orange, Riverside, San Bernardino, and San Diego counties, and into Baja California, Mexico, to approximately 30 degrees north latitude near El Rosario (Atwood 1990). Habitat destruction, fragmentation, and modification have led to this species' decline. Loss to agriculture and urban development were leading causes until 2003 when the Cedar Fire destroyed almost 28 percent of the remaining habitat that the USFWS believed to be suitable for the coastal California gnatcatcher (Bond and Bradley 2003). Again, in October 2007, several fires burned approximately 369,000 acres in San Diego County.

A total of 33 coastal California gnatcatcher territories were identified during the 2016 focused surveys (Appendix A, Figure 4: Vegetation and Special-Status Species). Gnatcatcher territory status and observations described in detail in Appendix B 2016 Coastal California Gnatcatcher, Least Bell's Vireo, and Southwestern Willow Flycatcher.

Least Bell's Vireo

The least Bell's vireo breeds in southern California and northwestern Baja California, with the majority of the population located in San Diego County. The least Bell's vireo is a small, migratory insectivore that prefers dense riparian vegetation for foraging and nesting. The CDFW listed the least Bell's vireo as endangered in 1980 and the USFWS followed listed this species as endangered in 1986. Critical habitat was designated for this subspecies in 1994 along the southwestern coastline of California below Santa Barbara (USFWS 1994).

Historically, least Bell's vireo was a common to locally abundant species found in lowland riparian habitats between northern California and coastal southern California. However, loss of

riparian habitats and brown-headed cowbird (*Molothrus ater*) parasitism led to a large population decline. When USFWS first listed the bird in 1986, the population was estimated to be just 300 pairs. The latest Five Year Review, dated September 2006, reported a 10-fold increase in population size since the time of its listing to an estimated 2,968 territories (USFWS 2006). The vireo population increase is largely attributed to cowbird control and habitat restoration and preservation (Kus 1999, Kus and Whitfield 2005).

Two least Bell's vireo transients were detected on June 13 and July 5, 2016 (Appendix A, Figure 4: Vegetation and Special-Status Species). For more information please see Appendix B 2016 Coastal California Gnatcatcher, Least Bell's Vireo, and Southwestern Willow Flycatcher.

Southwestern Willow Flycatcher

The southwestern willow flycatcher is one of four subspecies of willow flycatcher in the United States that breeds in southern California and was listed as an endangered species by CDFW in 1991 (CDFW 2017) and the USFWS in 1995 (USFWS 1995). Critical habitat for this species was revised by the USFWS in 2013 (USFWS 2013).

This small, insectivorous, migratory bird is usually found in dense riparian vegetation occurring along streams or other wetlands (Sogge et al. 2010). The structure of these habitats typically consists of a dense mid-story and understory and can also include a dense canopy (USFWS 1995). However, suitable vegetation is not uniformly dense and typically includes interspersed patches of open habitat. Typical plant species associated with their habitat include willow, mule fat, box-elder (*Acer negundo*), stinging nettle (*Urtica* spp.), Fremont cottonwood, tamarisk, and Russian olive (*Elaeagnus angustifolia*). Plant species composition does not seem as important as a dense twig structure and an abundance of live, green foliage (Sogge et al. 2010). Within the habitat structure parameters discussed above, southwestern willow flycatcher does demonstrate adaptability in that it can occupy riparian habitats composed of native broadleaf species, a mix of native and exotic species, or monotypic stands of exotics (Sogge et al. 2010).

No southwestern willow flycatchers were detected during the 2016 focused surveys. Suitable southwestern willow flycatcher habitat typically consists of a dense mid-story and understory and can also include a dense canopy (USFWS 1995). The PSA supports foraging and nesting habitat for southwestern willow flycatchers. Specifically, the survey area has a moderate potential to support breeding southwestern willow flycatcher.

3.6.2 State-Listed Wildlife Species

Two state-listed wildlife species, least Bell's vireo and southwestern willow flycatcher, are discussed in Section 4.5.1, Federally-Listed Wildlife Species.

Coronado Skink (*Plestiodon skiltonianus interparietalis*)

The Coronado skink is a CDFW SSC lizard that is typically found in the moister areas of coastal sage, chaparral, oak woodlands, pinyon-juniper, riparian woodlands, and pine forests (Jennings

and Hayes 1994). Its prey includes small invertebrates found in leaf litter or dense vegetation at the edges of rocks and logs. The Coronado skink is found along the coastal plain and Peninsular Ranges west of the deserts from approximately San Gorgonio Pass in Riverside County south to San Quentin, Mexico (Jennings and Hayes 1994).

3.6.3 Other Special-Status Wildlife Species

Coast Horned Lizard

Coast horned lizard is a CDFW SSC and NCCP covered species. It occurs from the Transverse Ranges in Kern, Los Angeles, Santa Barbara, and Ventura counties southward throughout the Peninsular Ranges of southern California to Baja California, Mexico, as far south as San Vicente. It is found in a wide variety of habitats, including coastal sage scrub, annual grasslands, chaparral, oak woodlands, riparian woodlands, and coniferous forests. It is perhaps most abundant in riparian and coastal sage scrub habitats on old alluvial fans of the southern California coastal plain. The primary threat to the continued existence of this species is habitat loss. Other threats include non-native ants, especially Argentine ants (*Linepithema humile*), and disturbances related to off-road vehicles.

Coast horned lizard has a high potential to occur within the PSA. The CNDDB lists four records of occurrence within 1 mile of the proposed work areas. In addition, the PSA contains habitat suitable to support this species in the form of coastal sage scrub, chaparral, oak, and riparian woodland communities.

Coast Patch-Nosed Snake

The coast patch-nosed snake is a CDFW SSC and NCCP covered species. The species occurs from the northern Carrizo Plain (San Luis Obispo County) south along the southern California coast to coastal northern Baja California. Elevation range is from sea level to 2,700 feet. Coast patch-nosed snakes occur in habitats with shrubby or bushy vegetation, including grasslands, coastal sagebrush, chaparral, and pinyon-juniper woodlands (Stebbins 2003).

Coast patch-nosed snake has a moderate potential to occur within the PSA. The CNDDB lists one record of occurrence within 1 mile of the proposed work areas. In addition, the PSA contains habitat to support this species in the form of coastal sage scrub, chaparral, and non-native grassland communities.

Coastal Whiptail

The coastal whiptail, also known as the San Diegan tiger whiptail, is a CDFW SSC. The coastal whiptail is found in coastal southern California, mostly west of the Peninsular Ranges and south of the Transverse Ranges, and north into Ventura County. It has been nearly extirpated from the Los Angeles basin and in the San Diego region. The elevation range extends from near sea level to around 7,000 feet (California Herps 2017). Coastal whiptails are found in a variety of

habitats, primarily hot and dry open areas with sparse foliage, such as chaparral, woodland, and riparian areas (California Herps 2017).

Coast whiptail has a high potential to occur within the PSA. The CNDDB lists five records of occurrence within 1 mile of the proposed work areas. In addition, the PSA contains habitat to support this species in the form of coastal sage scrub, chaparral, oak, and riparian woodland communities.

Cooper's Hawk

Cooper's hawk is a CDFW watch list and a SDG&E NCCP-covered species. Cooper's hawks are common year-round residents throughout North America. They are found throughout San Diego County wherever there are abundant trees and are most abundant in foothills and canyons as well as in urban areas (Unitt 2004). They are a medium-sized hawk, blue-gray in color with reddish bars on its underparts. Cooper's hawk was incidentally observed within 1 mile of the PSA during site visits.

Coronado Skink

Coronado skink is a CDFW watch list and a SDG&E NCCP-covered species. It is a medium-sized secretive lizard that is typically found in the moister areas of coastal sage, chaparral, oak woodlands, pinyon-juniper, riparian woodlands, and pine forests (Jennings and Hayes 1994). Its prey includes small invertebrates found in leaf litter or dense vegetation at the edges of rocks and logs. The Coronado skink is found along the coastal plain and Peninsular Ranges west of the deserts from approximately San Gorgonio Pass in Riverside County south to San Quentin, Mexico (Jennings and Hayes 1994).

Northwestern San Diego Pocket Mouse

Northwestern San Diego pocket mouse is a CDFW SSC. It ranges through sandy, herbaceous areas throughout southwestern California. It occurs in a variety of habitat including coastal scrub, chaparral, desert scrub, pinyon-juniper woodland, and grasslands from sea level to 4,500 feet. Northwestern San Diego pocket mouse is a small, nocturnal mammal and has an average home range of 0.9 acre for males and 0.62 acre for females.

Northwestern San Diego pocket mouse has a high potential to occur within the PSA. The CNDDB list one occurrence of northwestern San Diego pocket mouse within 1 mile of the proposed work area. In addition, the PSA contains habitat suitable to support this species in the form of coastal sage scrub, chaparral, and non-native grasslands.

Orange-Throated Whiptail

Orange-throated whiptail is a CDFW watch list and a SDG&E NCCP covered species. Orange-throated whiptail occurs in semi-arid, brushy areas typically with loose soil and rocks, including washes, stream sides, rocky hillsides, coastal sage scrub, and chaparral. This species can also occur in weedy, disturbed areas adjacent to these habitats.

Orange-throated whiptail has a high potential to occur within the PSA. The CNDDB lists two occurrences of orange-throated whiptail within 1 mile of the proposed work area. In addition, the PSA contains high quality habitat suitable to support this species in the form of coastal sage scrub and chaparral.

Red-Diamond Rattlesnake

Red-diamond rattlesnake is a CDFW SSC SDG&E NCCP covered species. The red diamond rattlesnake is a large, heavy-bodied rattlesnake that has a wide tolerance for varying environments and can be found in a variety of vegetation types, but is most commonly seen in areas with heavy brush and cacti, rocks, or boulders (Stebbins 2003). The known range extends from San Bernardino County along the coastal and desert slopes southward to Baja California. Adult red diamond rattlesnakes eat mostly squirrels and rabbits, but lizards, specifically the western whiptail, are a significant food source for juveniles (Jennings and Hayes 1994). Urban development and the trend towards planting orchards on steeper rocky hillsides have significantly decreased the amount of appropriate habitat for this species (Jennings and Hayes 1994).

San Diego Black-Tailed Jackrabbit

The San Diego black-tailed jackrabbit is a CDFW SSC and SDG&E NCCP covered species. The San Diego black-tailed jackrabbit ranges from the southern slopes of Transverse Ranges into Baja California, Mexico. It has been nearly extirpated from the Los Angeles basin and in the San Diego region. The elevation range extends from near sea level to around 5,000 feet). San Diego black-tailed jackrabbit are found in a variety of habitats, including coastal sage scrub, chaparral, riparian, oak woodlands, and rocky areas; primarily in areas with habitats with sandy or gravel soils, and often associated with washes. They are not found in areas where the habitat has been fragmented by roads and development.

San Diego black-tailed jackrabbit has a high potential to occur within the PSA. The CNDDB lists one occurrence of San Diego black-tailed jackrabbit within 1 mile of the proposed work areas. In addition, the PSA contains habitat suitable to support this species in the form of coastal sage scrub, chaparral, oak and riparian woodland communities.

San Diego Woodrat

The San Diego desert woodrat is a CDFW SSC. The desert woodrat as a whole is distributed from central California southward well into Baja California, Mexico, and across much of the Great Basin as far north as eastern Oregon and southwestern Idaho. The San Diego subspecies is found along the coast of California from San Luis Obispo (San Luis Obispo County) southward and inland to San Fernando (Los Angeles County), the western foothills of the San Bernardino Mountains (San Bernardino County), and Julian (San Diego County). Its distribution continues southward in Baja California, Mexico, at least to a point 20 miles east of Ensenada.

It is a medium-sized native rat locally common in a variety of sunny shrub habitats, frequently in rocky and/or steep terrain and upper drainages. This mainly nocturnal vegetarian often builds its dens low in cactus or rock crevices, but will use other sites as needed. Habitats for this subspecies are dry and/or sunny shrublands, especially (but not necessarily) areas with cactus and abundant rocks and crevices. Sage scrub communities are frequently occupied, but other communities are also used as suitable microhabitats when available.

San Diego woodrat has a high potential to occur within the PSA. The CNDDB lists two occurrences of San Diego woodrat within 1 mile of the proposed work areas. In addition, the PSA contains habitat suitable to support this species in the form of coastal sage scrub, chaparral, oak and riparian woodland communities.

Southern California Rufous-Crowned Sparrow

Southern California rufous-crowned sparrow is a CDFW watch list and a SDG&E NCCP-covered species. Southern California rufous-crowned sparrow inhabits mixed chaparral and coastal sage scrub. In California, its range extends southward from Mendocino and Tehama counties; this species is most numerous in the western part of this range (Zeiner et al. 1990). Southern California rufous-crowned sparrows breed and forage on dry grass and/or forbs on hillsides with scattered shrubs and rock outcrops. Nests are usually made on the ground, at the base of grass tussock or shrubs. It is a year-round resident and diurnally active, eating mostly insects and spiders during the breeding season and seeds, grass, and forb shoots throughout the year. It breeds from mid-March to mid-June with a peak in May. In Southern California coastal sage scrub, the average sized territory is about 2 acres (Zeiner et al. 1990).

Southern California rufous-crowned sparrow was observed during the 2016 surveys (Appendix A, Figure 4: Vegetation and Special-Status Species).

Yellow warbler

Yellow warbler is a CDFW SSC. They are associated with mature riparian woodland that include cottonwood, willows, alders, and ash trees. Yellow warblers are a common breeding summer resident throughout San Diego County. Yellow warblers are small, yellow songbirds with medium-length tails and rounded heads with a thin, straight bill. Males have vertical reddish streaks on their breast.

Yellow warbler was observed during the 2016 surveys (Appendix A, Figure 4: Vegetation and Special-Status Species).

Two-Striped Garter Snake

The two striped garter snake is a CDFW SSC. Two-striped garter snakes occur throughout the South Coast and Peninsular Ranges west of the San Joaquin Valley from near Salinas south to La Presa, Baja California, Mexico. The species' elevation range extends from sea level to around 8,000 feet. The two-striped garter snake is a highly aquatic snake that is rarely found far from

water, though terrestrial habitat and rodent burrows can be an important habitat component for the species. Two-striped garter snakes inhabit perennial and intermittent streams with rocky beds bordered by willow thickets and other dense vegetation. They may also inhabit stock ponds or other artificially created aquatic habitats. Two-striped garter snakes forage primarily on fish, fish eggs, and tadpoles (Thompson et al. 2016).

Two-striped garter snake has a moderate potential to occur within the PSA. Also, the CNDDB lists two records of occurrence within 1 mile of the proposed work areas. The PSA contains habitat suitable to support this species in the form of fresh water from San Marcos Creek.

3.7 JURISDICTIONAL DELINEATION

A total of 157 features within the PSA were identified and evaluated for potential state and federal jurisdiction pursuant to the regulations described above in Section 2.5. These features generally fell into one of seven categories:

- Four categories that are considered potentially jurisdictional: wetlands and riparian habitats, ephemeral streams, intermittent streams, perennial streams; and
- Three categories that are considered non-jurisdictional: swales, erosional features, and concrete v-ditches constructed in uplands as best management practices (BMPs).

Of the 157 features evaluated, 100 were considered to be potentially state and federally jurisdictional. No existing or proposed poles are located within an aquatic feature. Three existing poles are located within 25 feet of a jurisdictional feature: 7, 72, and 71. In addition, a number of jurisdictional aquatic features either cross potential access road, or are within proposed staging yards. A full detailed description of each aquatic resource can be found in Appendix C Jurisdictional Delineation Report for the SDG&E TL 6975 Escondido to San Marcos New 69 kV Project.

3.7.1 Wetlands/Riparian Vegetation

Wetlands and/or riparian vegetation identified within PSA were predominantly associated with intermittent and perennial streams and were dominated by black, red, and arroyo willows (*Salix* spp.*)*, mulefat (*Baccharis salicifolia*), cattail (*Typha* sp.), and bulrush (*Schoenoplectus* sp.). Some wetlands were inundated at the time of the site visit.

CDFW riparian areas included the wetland features above as well as patches of mule fat, tamarisk (*Tamarix* sp.), and/or coast live oaks (*Quercus agrifolia*) which occurred within ephemeral streams.

3.7.2 Streams

A total of 59 ephemeral streams, four intermittent streams, and 12 perennial streams were identified within the PSA. These features had clear bed and bank, as well as multiple OHWM

indicators. OHWM indicators commonly included: shelving, changes in particle size, water staining, changes in vegetation cover/species, and changes in slope from the active floodplain to the low terrace. The ephemeral streams in the PSA were variable in size and ranged from one to 15 feet wide measured from bank-to-bank. The majority of the intermittent streams identified throughout the project alignment were associated with tributaries to San Marcos Creek and/or Escondido Creek. These features often supported riparian vegetation and wetlands and were associated with National Hydrography Dataset (NHD) streamlines. Intermittent streams were typically identified in conjunction with perennial streams and were variable in size, ranging from nine to 92 feet measured from bank-to-bank. Perennial streams were associated with San Marcos Creek and associated unnamed tributaries. Each perennial stream had contained flowing waters, evidence of inundation, and always supported wetlands and riparian vegetation.

3.8 WILDLIFE MIGRATION CORRIDORS

Wildlife migration corridors are areas that connect suitable habitat in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Natural features (e.g., canyon drainages, ridgelines, or areas with vegetation cover) provide corridors for wildlife travel. Wildlife corridors are important because they provide access to mates, food, and water; allow the dispersal of individuals away from high-population-density areas; and facilitate genetic diversity. The CEQA Guidelines require that project proponents disclose impacts to wildlife corridors and mitigate for significant impacts to wildlife corridors.

Disturbance to wildlife corridors such as human disturbance and development can cause harm to migrating species, cause species to exceed the population thresholds, and/or prevent healthy gene flow between populations. This section discusses the applicable wildlife corridors that are present or potentially present within the PSA.

3.8.1 Terrestrial Species

Terrestrial wildlife species migrate through both upland and drainage areas, depending on the species. Species that need protective cover from predators (e.g., mammals, reptiles, and smaller avian species) tend to migrate along natural drainages and riparian corridors that have a high vegetative cover. These areas also serve as an important source of food resources (e.g., insects and seeds) for these species. There are numerous natural drainages and riparian corridors in the PSA, including multiple unnamed tributaries to San Marcos Creek and/or Escondido Creek. These drainages may be used as migration corridors by a variety of species. Predator species, such as bobcat (*Lynx rufus*) or mountain lion (*Puma concolor*), require larger portions of intact habitat, including interconnected upland and riparian systems for migration.

The Proposed Project is located in the Pacific Flyway, a major north-south avian migratory corridor that extends along the West Coast from Alaska to Patagonia, and provides suitable foraging habitat for many resident and migratory avian species. The Pacific Flyway links breeding grounds in the north to more southerly wintering areas and, therefore, is utilized by an abundance of bird species during migration.

Aquatic Species

Aquatic species are also known to migrate within wetland and drainages. Within the PSA, intermittent and perennial drainages serve as potential linkages for aquatic species. Tributaries to San Marcos Creek and/or Escondido Creek could provide wildlife connectivity for aquatic species while water is flowing within those drainages.

3.9 USFWS CRITICAL HABITAT AREAS

The USFWS designates critical habitat for endangered and threatened species under the FESA (16 USC 1533 (a)(3)). Critical habitat is designated for the survival and recovery of federally listed endangered and/or threatened species. Protected habitat includes areas for foraging, breeding, roosting, shelter, and movement or migration. The USFWS has designated critical habitat for the coastal California gnatcatcher, San Diego fairy shrimp (*Branchinecta sandiegonensis*), spreading navarretia, and thread-leaved brodiaea in areas within 1-mile of the Proposed Project.

Portions of the Proposed Project are located within critical habitat designated for coastal California gnatcatcher (Appendix A, Figure 3: Preserves and Critical Habitat). Approximately 151 acres of the PSA is within Critical Habitat for coastal California gnatcatcher.

4. IMPACTS

4.1 IMPACT SUMMARY

The following discussion describes the Proposed Project's potential to affect special-status biological resources during construction, and operation and maintenance of a twelve-mile-long overhead power line along an existing transmission corridor; modifications to two existing substation; and use of the 10 staging yards, 22 stringing sites, 48 temporary guard structures, and extension of an existing access road.

SDG&E would operate in compliance with all state and federal laws, regulations, and permit conditions. This includes compliance with the CWA, Porter-Cologne Water Quality Control Act, federal ESA, MBTA, California ESA, CEQA, and requirements and protective measures from CDFW and USFWS. In addition, SDG&E would implement the SDG&E Subregional NCCP, which was established according to the federal ESA and California ESA and the NCCP Act. Compliance also includes following the guidelines outlined in Section 7.1, Operational Protocols, and Section 7.2, Habitat Enhancement Measures, of the SDG&E Subregional NCCP. The Operational Protocols (Appendix F SDG&E Natural Communities Conservation Plan Operational Protocols) are designed to provide avoidance and minimize impacts to all sensitive resources, regardless of whether the species is an NCCP-covered species.

Impacts that would result in irreversible loss of habitat or individuals are considered permanent; impacts that would end with the cessation of construction are considered temporary. Direct and indirect impacts may be either permanent or temporary. These impact categories are defined below.

Direct: Direct impacts are caused by the project and occur at the same time and place as the project. 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 to native habitats, potential jurisdictional waters, wetlands, and special status species; and diverting natural surface water flows. Direct impacts could include injury, death, and/or harassment of listed and/or special status species. Direct impacts could also include the destruction of habitats necessary for species breeding, feeding, or sheltering. Direct impacts to plants can include crushing of adult plants, bulbs, or seeds.

Indirect: As a result of project-related activities, biological resources may also be affected in a manner that is not direct. Indirect impacts may occur later in time or at a place that is farther removed in distance from the project than direct impacts, but indirect impacts are still reasonably foreseeable and attributable to project-related activities. Examples include habitat fragmentation; elevated noise, dust, and lighting levels; changes in hydrology, runoff, and sedimentation; decreased water quality; soil compaction; increased human activity; and the introduction of invasive wildlife (domestic cats and dogs) and plants.

Permanent: All impacts that result in the irreversible removal of biological resources are considered permanent. For the purposes of this project, impacts are irreversible if filling activities result in an elevation (gradient) change or an impervious surface. Examples include constructing a building or permanent road on an area containing biological resources.

Temporary: Any impacts considered to have reversible effects on biological resources can be viewed as temporary. For the purpose of this project, if preconstruction contours are maintained and the area can be revegetated in place, then the impact is considered temporary. Examples include the generation of fugitive dust during construction, or removing vegetation for underground pipeline trenching activities and allowing the natural vegetation to recolonize the impact area.

4.2 Construction Impacts

Construction of the Proposed Project would result in temporary disturbance and/or permanent loss of sensitive vegetation communities. In addition, temporary disturbance and/or permanent loss could occur to special-status plants and special-status wildlife. Table 4: Potential Impacts Resulting from the Proposed Project, summarizes the permanent and temporary impacts associated with the Proposed Project.

Table 4: Potential Impacts Resulting from the Proposed Project

Impact Type	Approximate Area of Impact (acres)
Permanent	2. 0
Temporary	79. 4

4.2.1 Permanent Impacts

Permanent impacts to biological resources would result from the installation of permanent features which includes 35 new direct bury or concrete-pier foundation steel poles and their associated work areas outside of areas where permanent work pads are already maintained for the existing power lines. The Proposed Project would be located predominantly within existing utility corridors and franchise areas that currently feature permanent work pads and access roads; an existing access road near Meadowlark Junction would be extended. The Proposed Project would require some vegetation clearing associated with access during construction, and operation and maintenance of the facilities. Work areas utilized solely for construction are often simply cleared of vegetation, and grading is only undertaken where relatively flat areas are not already present.

Existing wood poles would be completely removed and the holes backfilled with soils from the pole replacement. Soil would not be taken from the surrounding areas to fill the holes. If additional backfill material is required, clean, decomposed granite would be used to backfill the old pole holes. Excess from the new holes would be placed on top of the decomposed granite. In some cases, existing poles would cut at ground level, and the remainder of the pole would be

left in place to avoid impacts on sensitive resources. In general, the new 69 kV steel poles (direct bury and foundation) would range in height from 35 feet to 125 feet above ground level. All poles would be constructed to current SDG&E standards, including design standards for avian protection. Direct-buried steel poles are light- and heavy-duty weathering steel poles that are secured using a concrete backfill. The poles would be inserted into the ground to a depth of approximately 7 to 16 feet, as necessary for installation. Light-duty steel poles would be used at all locations; it is not anticipated that heavy-duty steel poles would be needed for the Proposed Project. Concrete-pier foundation poles are engineered steel poles that are anchor bolted to a reinforced concrete foundation. Foundation construction would require an approximate 40-foot work area to provide a safe and adequate temporary workspace, as well as a 35-foot by 50-foot work area located in the access road. Eight concrete-pier foundation poles would be installed; the concrete base would measure approximately 10 feet in diameter, and approximately 2 vertical feet of the base would be exposed above ground level.

4.2.2 Temporary Impacts

Temporary impacts include short-term impacts occurring during removal of existing wooden poles, installation of replacement new steel poles, and work at stringing sites and staging yards. Temporary work areas would be required for storage and staging of construction equipment and materials. All temporary work areas would be accessed by construction equipment using existing access roads, with the exception of an extension of an existing access road along Meadowlark Junction, and the addition of four new spur roads. Temporary work areas may also be accessed by construction personnel using footpaths. The precise location, configuration, and number of temporary work areas may change as necessary at the time of construction due to site conditions and construction requirements in order to provide a safe and adequate work area for construction workers, and to avoid and minimize impacts to sensitive resources. To accommodate construction equipment and activities during the installation and removal of transmission poles and structures and while transferring the power line conductors and re-energizing, temporary work areas would be cleared and graded at each location. The work areas for each type of pole foundation would generally be centered on the existing pole location. However, actual work areas would vary in shape and size, and would be determined based on site conditions and access requirements in order to provide a safe and adequate work area for construction workers. Based on new pole positions for the Proposed Project, some trenching would be involved to intercept existing underground conduit and reroute to the new pole. Trenching activities would typically be performed within a 10- to 30-foot radius of the poles. Trenching operations would be staged in intervals so that only a maximum of 500 feet of trench (or as allowed by permit requirements) would be left open at any one time. The typical trench dimensions for installation of each duct bank would be 3 to 6 feet deep and 2 to 7 feet wide, depending on the duct bank configuration. Depths may vary depending on soil stability and the presence of existing substructures. If rock is encountered during excavation, a hydraulic rock drilling and splitting procedure (rock-splitting) may potentially be used to minimize trenching or drilling time, depending on site-specific conditions.

The Proposed Project includes approximately 10 temporary construction staging yards resulting in a total area of approximately 60 acres. The staging yards may be used as refueling areas for vehicles, helicopters, and construction equipment; as equipment wash stations; for pole assemblage; for storage of material and equipment, storage containers, construction trailers, and portable restrooms; and for parking and lighting. These areas may include generator use for temporary power in construction trailers and incidental landing areas for helicopters.

Construction access would use existing access roads and public roadways. No new access roads are proposed, with the exception of four spur roads and an existing access road near Meadowlark Junction would be extended. Most work areas are accessible by vehicle on unpaved SDG&E-maintained access roads or by overland travel. To provide crews and equipment access to the associated poles, existing access roads may require smoothing or refreshing, and/or vegetation clearing may be necessary to maintain some existing access roads and to re-establish unmaintained access roads. In addition, contractors may require additional turn around and vehicle passing locations to safely operate construction vehicles and equipment. The on-site monitor would assist crews in locating vehicle turn around and passing areas that avoid and minimize impacts on sensitive resources. Helicopters would be utilized as a construction tool for specific activities including (but not necessarily limited to) stringing of overhead conductor, installation or removal of structures, and transportation of equipment associated with the Proposed Project.

Approximately 22 stringing sites would be established to provide a safe working space for the installation and removal of overhead conductors and underground cables. These stringing sites would generally be located adjacent to designated 69 kV poles. The stringing sites would be approximately 20 feet long, 125 feet wide, and located directly in line or offset with the conductor. As a result, the stringing sites would require approximately 0.80 acres of land. Grading of the stringing sites is not expected to be necessary.

The onsite biological monitor, as appropriate, would assist construction crews in locating pole work areas to minimize impacts. It is anticipated that the Proposed Project would require brush removal and trimming during construction activities in order to establish work areas for pole installation and stringing activities and re-establish foot paths/overland paths. Vegetation would be cleared using a mower, weed whacker, shovel, rake, lopper, or chainsaw; placed in steel bins; and disposed of at appropriate facilities.

4.2.3 Operations and Maintenance Impacts

Operation and maintenance of the Proposed Project would utilize existing work areas and roads, as well as limited additional permanent work areas that would remain following completion of construction activities. Following construction of the Proposed Project, SDG&E would continue to conduct these activities to be consistent with its standard operating procedures, including the Subregional NCCP. No change in SDG&E's operation and maintenance protocols and procedures is anticipated or included as part of the Proposed Project.

SDG&E would continue to regularly inspect, maintain, and repair TL 6975 pending agency review of the Proposed Project and following completion of Proposed Project construction. These activities involve both routine preventive maintenance and emergency procedures to maintain service continuity. SDG&E performs aerial and ground inspections of Proposed Project facilities and patrols above-ground components annually. Inspection for corrosion, equipment misalignment, loose fittings, and other common mechanical problems is performed at least every 3 years (per CPUC G.O. 165) for power lines.

The existing power line alignment requires some maintenance activities that would no longer be needed due to the installation of steel poles and reconductoring the existing de-energized line. The existing wood poles require intrusive inspections every 10 years that would no longer be necessary with the new steel poles. The de-energized power line requires insulator washing four times a year. This activity would not be required once the power line was re-energized. This would result in a decrease in heavy truck miles from 91 to 84 miles per month. Otherwise, the de-energized lines on Segment 3 are currently inspected and maintained the same way an energized line would be; therefore, when the line is reconductored it would not require additional maintenance activities, or additional trips to the Proposed Project. The new structures in Segment 2 would require more maintenance. Due to the additional structures and hardware, Segment 2 would require more inspections, and more items that could require repair or replacement, which would result in more trips to the Segment. The miles traveled by light duty trucks per month would increase from 156 to 168 miles, primarily due to the additional inspections required. Based on the estimated maintenance the Proposed Project would require, overall miles traveled per month would be 252 miles per month, which is relatively similar to the current 247 miles traveled per month. Generally, maintenance activities would increase slightly with the implementation of the Proposed Project.

Significance Criteria

According to Section 15002(g) of the State CEQA Guidelines, "a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the Proposed Project." As stated in Section 15064(b) of the guidelines, the significance of an activity may vary with the setting. The potential significance of Proposed Project-related impacts on biological resources were evaluated for the applicable criteria from Appendix G of the State CEQA Guidelines, as discussed in the following sections.

4.3 VEGETATION COMMUNITIES

As summarized in Table 5: Potential Impacts on Vegetation Communities, the Proposed Project could result in temporary and permanent impacts on sensitive natural communities.

4.3.1 Direct Impacts

Permanent direct impacts would result from the permanent placement of steel poles within disturbed habitat, urban/developed habitat, orchard vineyard, Southern maritime chaparral, and Diegan coastal sage scrub. It is important to note that Segments 1 and 3 are existing power lines with existing facilities (i.e., poles) and that all old facilities would be completely removed where feasible when they are replaced. Temporary, direct impacts would result from grading, brush removal and vegetation trimming required during construction for pole removal, installation, staging yards, stringing sites, laydown areas, footpaths, and guard structures. No new access roads are proposed; however an extension would be required to an existing access road at Meadowlark Junction.

4.3.2 Indirect Impacts

Indirect impacts on vegetation communities may include the increased exposure to exotic plant seed. Non-native exotic plant species are opportunistic and often occupy disturbed soils such as those within transmission line corridors and areas of exposed bare ground that may occur within the disturbance area. Wildfires caused by downed transmission lines are rare but may occur. Exotic species often frequent areas adjacent to and within burn areas following a wildfire. Once introduced, these exotic plant species often outcompete natives for resources, resulting in a reduction in growth, future dispersal, and recruitment of native species, and the eventual degradation of the vegetation community. Erosion and storm water contaminant runoff also may degrade adjacent vegetation communities. Finally, dust deposition on leaf surfaces may result from construction traffic on dirt roads or lots, thus reducing the photosynthetic vigor of plants comprising sensitive natural communities.

Consistent with the SDG&E Subregional NCCP, the Proposed Project has been designed to avoid sensitive habitat areas when possible, including not placing new poles in drainage areas, using existing access roads where feasible, and placing any new facilities, staging areas, stringing sites, guard structures, and helicopter landing zones outside sensitive habitats when feasible. Where avoidance of sensitive habitat areas is not possible, or where sensitive habitat areas exist adjacent to the Proposed Project work areas, implementation of the measures in Sections 7.1 and 7.2 of the SDG&E Subregional NCCP would further minimize impacts in sensitive natural communities. Specifically, SDG&E would demarcate the boundaries of work limits and sensitive habitats and resources that will be avoided in accordance with Operational Protocol #14. Operational Protocols #1 and #39 would reduce fugitive dust resulting from construction vehicles by requiring that vehicles drive at speeds of 15 miles per hour or less, and that regular watering occurs, respectively. Operational Protocol #20 (as well as state and federal regulations) require SDG&E to use BMPs to minimize erosion and sedimentation effects of stormwater. Section 7.2 of the NCCP would be implemented to enhance habitat and minimize invasive species establishment and spread.

Significance Determination: As a result of implementation of the above measures, permanent and temporary direct and indirect impacts on sensitive natural communities would be *less than significant.*

Table 5: Potential Impacts on Vegetation Communities

Oberbauer Code	Vegetation Community Name	Approximate Acreage in PSA	Temporary Impact	Permanent Impacts
11300	Disturbed Habitat	124.0	22.0	0.7
12000	Urban/Developed	247.9	56.1	0.3
18100	Orchard/Vineyard	10.7	0.2	0.01
18300	Intensive Agriculture	0.8	---	---
64140	Fresh Water	0.2	---	---
79000	Non-native Woodland	1.0	---	---
79100	Eucalyptus Woodland	3.6	0.0	---
Total Impacts on Non-Sensitive Communities			**78.1**	**1.0**
32500	Diegan Coastal Sage Scrub*	122.8	0.7	0.8
37G00	Coastal Sage-Chaparral Transition*	125.8	---	---
37C30	Southern Maritime Chaparral*	21.8	0.3	0.3
42200	Non-native Grassland*	1.0	0.01	**---**
52400	Emergent Wetlands*	0.6	---	**---**
52410	Coastal and Valley Freshwater Marsh*	0.2	---	**---**
61300	Southern Riparian Forest*	4.6	0.01	---
63320	Southern Willow Scrub*	0.4	---	**---**
63310	Mule Fat Scrub*	0.1	---	**---**
71160	Coast Live Oak Woodland*	6.2	---	**---**
Total Impacts on Sensitive Natural Communities			**1.1**	**1.1**
Grand Total			**79.4**	**2.0**
* Indicates a sensitive natural community				

4.4 SPECIAL-STATUS PLANT SPECIES

Thirteen special-status species were detected within the PSA: ashy spike-moss, California adolphia, golden-rayed pentachaeta, Nuttall's scrub oak, Orcutt's brodiaea, Palmer's grapplinghook, San Diego marsh-elder, San Diego sagewort, San Diego sunflower, small-flowered microseris, summer holly, wart-stemmed ceanothus, and western dichondra. Special-status plant species locations are presented in Appendix A, Figure 4: Vegetation and Special-Status Species.

4.4.1 Direct Impacts

The Proposed Project would result in approximately 0.38 acre of permanent direct impacts on Nuttall's scrub oak (CRPR List 1B.1) and wart-stemmed ceanothus (CRPR List 2B.2). The Proposed Project has the potential to directly impact wart-stemmed ceanothus and Nuttall's scrub oak or other special-status plants that occur within temporary construction areas by the temporary removal of vegetation by unauthorized collection or trampling by construction personnel.

Table 6: Impacts on Special-Status Plant Species lists the total area of impacted special-status plant species within the PSA and occupied areas that occur within the temporary and permanent impact areas. The anticipated impact area, expressed as a percentage of the mapped occurrence area, is also provided.

Table 6: Impacts on Special-Status Plant Species

Species	CRPR Listing Status	Occupied Area Mapped in the PSA (acres)	Area of Temporary Impact (acre) (percent of total)	Area of Permanent Impact (acre) (percent of total)	Area of Total Impacts (acre) (percent of total)
Nuttall's scrub oak	1B.1	26.0	0.06 (0.2 %)	0.11 (0.4 %)	0.17 (0.7%)
Wart-stemmed ceanothus	2B.2	514.7	0.68 (<0.1%)	0.27 (0.1 %)	0.95 (0.1%)

4.4.2 Indirect Impacts

Temporary indirect impacts on special-status plant species could result from construction-related, dust, sedimentation, and erosion, which have the potential to alter site conditions, degrading the quality of the habitat.

Under the County of San Diego's Guidelines for Determining Significance for Biological Resources (County of San Diego 2010), any impacts on County List A or B plant species—which include all CRPR List 1B and 2B species observed within the PSA—are considered to be potentially significant. According to the County's guidelines, if it is determined that a given project would not have a substantial adverse effect on the local long-term survival of a special-status plant species, and if less than 5 percent of that species and its habitat would be impacted, impacts on these CRPR List 1B and 2B special-status plant species may be considered to be less than significant. Using this metric, impacts on Nuttall's scrub oak and wart-stemmed ceanothus would not be significant because the area of impacts on these species would not exceed 5 percent of the total area mapped within the PSA.

According to the County of San Diego's Guidelines for Determining Significance for Biological Resources, impacts on the County's List C or D species—which include CRPR List 3 and 4 species observed within the PSA—would be considered significant if the Proposed Project impacts the local long-term survival of those species. CRPR List 3 and 4 species with the PSA were generally observed at the landscape level (i.e., hundreds or thousands of individuals) within the PSA and are not located within any temporary impact areas. Only indirect impacts are expected for these individuals. As a result, it can be reasonably concluded that there would be no threat to the long-term survival of these CRPR List 3 and 4 species as a result of the Proposed Project.

To minimize impacts on special-status plants from construction of the Proposed Project, SDG&E will use a biological monitor in accordance with Operational Protocol #13, who will flag occurrences of special-status plants outside of impact areas for avoidance in accordance with Operational Protocol #14. The biological monitor will also check that flagged areas of these special-status plants have been avoided and will document that compliance. SDG&E will also

implement Operational Protocol #39, which will result in regular watering of construction areas to minimize fugitive dust. Fugitive dust will also be controlled by limiting onsite vehicle speeds to 15 miles per hour in accordance with Operational Protocol #39. Temporary impacts potentially resulting from erosion and sedimentation will be minimized through implementation of Operational Protocols #16, #19, and #20, which require, among other things, the implementation of BMPs to manage stormwater run-off. SDG&E will reduce impacts associated with the spread of noxious weeds in the construction areas by conforming to the habitat reclamation procedures outlined in Section 7.2 of the NCCP.

As a result of the measures in Section 7.2 of the NCCP and the NCCP Operational Protocols listed above, it can be reasonably concluded that there would be no threat to the long-term survival of CRPR List 3 and 4 special-status plants within the PSA as a result of the Proposed Project. Furthermore, the Proposed Project would not result in a substantial adverse effect on the local long-term survival of a CRPR List 1 and 2 special-status plant species, nor would more than 5 percent of one of these species or its habitat be impacted.

4.5 SPECIAL-STATUS WILDLIFE SPECIES

4.5.1 Special-Status Reptile Species

Six special-status reptile species have a high potential to occur within the PSA: coastal whiptail, coast horned lizard, coast patched-nosed snake, Coronado skink, orange-throated whiptail, and red-diamond rattlesnake.

Direct Impacts

Permanent direct impacts on the habitat of these six reptile species are anticipated as a result of the permanent removal of upland habitat, such as Diegan coastal sage scrub and nonnative grassland, due to the grading, trenching, and installation of the permanent placement of steel poles and structure foundations. Permanent direct impacts could occur to individuals as a result of vehicular strikes or excavation equipment strikes. Temporary direct impacts may result from the temporary removal of upland habitat, such as Diegan coastal sage scrub and nonnative grassland, due to grading and trenching for the installation of the poles.

Indirect Impacts

Temporary indirect impacts could occur due to construction noise and ground vibration, as animals may be deterred from inhabiting or foraging in areas near such activities. Additional indirect impacts could occur from construction-related dust, sedimentation, and erosion, which have the potential to alter site conditions and the use of the site by reptile species. In addition, temporary impacts associated with nighttime construction activities may result in temporary avoidance of construction areas due to lighting. Furthermore, the Proposed Project may result in impacts on these species if noxious weed seeds are spread within occupied habitats during construction; if allowed to establish and spread, these weeds could alter the habitat for these species.

Avoidance and Minimization Measures

To ensure that special-status reptiles are not significantly impacted as a result of the Proposed Project, SDG&E will implement Operational Protocol #1, which requires construction vehicles to maintain a 15 mile per hour (mph) speed limit, reducing the potential for collisions, as well as Operational Protocol #11, in which all employees receive environmental training on special-status species potentially occurring with the Proposed Project. Operational Protocol #38 requires that all steep-walled trenches be inspected twice daily to protect against wildlife entrapment. If wildlife are located in the excavation, the biological monitor will remove the animal if they cannot escape unimpeded. SDG&E also will implement Operational Protocols #2, #4, #5, #7, and #10, which prohibit construction personnel from conducting activities that may harm or harass special-status wildlife species (i.e., hunting, feeding, and collecting wildlife). In addition, temporary lighting at staging and storage areas will be directed on site and away from any sensitive receptors as part of its Standard Operating Procedures for linear projects. SDG&E will reduce impacts associated with the spread of noxious weeds in the construction areas by conforming to the habitat reclamation procedures outlined in Section 7.2 of the NCCP.

Significance Determination: The area of habitat loss is small compared to the special-status small reptile habitat that is available regionally, and the permanent impacts would not result in the long-term decline in any special-status reptile species, therefore there would be no substantial adverse impact on special-status reptiles resulting the Proposed Project. Therefore, permanent and temporary direct and indirect impacts on special-status reptile species from the Proposed Project would be less than significant. Implementation of the Standard Operating Procedures, Section 7.1 (including the NCCP *Operational Protocols*) and Section 7.2 of the NCCP would ensure potential impacts to special-status reptiles remain *less than significant.*

4.5.2 Special-Status and Nesting Avian Species

Proposed construction activities may impact up to six special-status avian species that have either been observed on site or have a moderate or high potential to breed or forage within the PSA. Five special-status avian species including coastal California gnatcatcher, Cooper's hawk, least Bell's vireo, Southern California rufous-crowned sparrow, and yellow warbler were observed within or near the PSA. Southwestern willow flycatcher has a moderate potential for occurring within the PSA. Impacts to these special-status species, and to other nesting birds protected by the MBTA and the California Fish and Game Code, may occur as a result of Proposed Project construction.

Direct Impacts

Proposed Project activities that could permanently affect special-status avian species' habitats include the permanent loss of habitat used for foraging and nesting for avian species. Permanent removal of habitat would be necessary for the installation of steel poles and structure foundations. A variety of other avian species protected under the MBTA (see Section 3.5.4,

Migratory Birds), but not considered rare, threatened, or endangered by local, state, or federal laws or regulations, would also be impacted by removal of these vegetation communities.

Permanent direct impacts may also occur to individuals from vehicular strikes or excavation equipment strikes. Vehicular collisions occur most frequently during the vegetation clearing stage of construction, and involve eggs, nestlings, and recently fledged young that cannot safely avoid equipment. In addition, electrocution of avian species can occur from wing contact with two conductors, as avian species perching, landing, or taking off from a utility pole can complete the electrical circuit. Avian electrocutions can also occur through simultaneous contact with energized phase conductors and other equipment or simultaneous contact with an energized wire and a grounded wire. Electrocution of avian species poses a greater potential hazard to larger birds, such as raptors, because their body sizes and wing spans are large enough to bridge the distance between the conductor wires and, thus, complete the electrical circuit. Proposed Project activities that could temporarily directly affect special-status avian species habitat include general construction-related activities, including vegetation trimming and vegetation removal. Vegetation trimming and vegetation removal could result in temporary removal of nesting or foraging habitat and/or the removal of some food sources during construction.

Indirect Impacts

Potential indirect effects to avian species include impacts resulting from decreased suitability of habitat in the Proposed Project vicinity resulting from various factors such as increased noise from construction activities and vehicles, vehicle emissions, dust, and other human activity. Noise from construction activities can affect avian species in multiple ways such as depressing breeding success by acoustical masking, interfering with intra-specific communication, and interfering with detection of predators. Construction activities could disrupt breeding and foraging activities, and could prevent birds from attending to nests or could cause birds to flush from their nests, endangering eggs and chicks. Dust could have an adverse effect on the health of chicks and adults as well as on the viability and presence of prey insects and on the overall health of vegetation. Temporary indirect impacts to all avian species include the disruption of nesting behavior due to a temporary increase in the presence of humans, as well as noise from construction equipment and vehicles. Temporary impacts may also result from unauthorized actions from construction personnel, such as hunting or feeding of avian species. Night lighting associated with construction activities may also temporarily affect avian species roosting and foraging behavior, especially for avian species that are active after dark. Avoidance and Minimization Measures

In order to avoid and minimize impacts to nesting birds, SDG&E will conduct a pre-activity survey, which will include a nesting bird survey, if Proposed Project activities are conducted during the bird breeding season (February 15 through August 31). As part of Operational Protocol #35, SDG&E will also ensure biological monitoring during construction if recommended in the pre-activity survey report. Biological monitors will ensure appropriate avoidance of nest locations are maintained if construction occurs during the breeding season.

SDG&E also will implement Operational Protocol #1, which requires construction vehicles to maintain a 15 mph hour speed limit, reducing the potential for avian collisions, as well as Operational Protocol #11, which requires that all employees receive environmental training on special-status species potentially occurring with the Proposed Project area. SDG&E also will implement Operational Protocols #2, #4, #5, #7, and #10, which prohibit construction personnel from conducting activities that may harm or harass special-status wildlife species (i.e., hunting, feeding, harassing, relocating and collecting wildlife). The risk of damaging oak trees will be reduced through implementation of Operational Protocol #6, which prohibits construction personnel from parking or driving under oak trees.

SDG&E will reduce impacts associated with the spread of noxious weeds in the construction areas by conforming to the habitat reclamation procedures outlined in Section 7.2 of the NCCP. In addition, temporary lighting at staging and storage areas will be directed on site and away from any sensitive receptors as part of its Standard Operating Procedures for linear projects. The power line structures would be constructed in compliance with the Avian Power Line Interaction Committee (APLIC) Suggested Practices for Avian Protection on Power Lines. The APLIC standards are in addition to SDG&E's current construction standard, which includes increased phase spacing and cover-ups to reduce avian mortality from electrocution. Therefore, the potential for avian electrocution would be reduced.

Significance Determination: Implementation of these Standard Operating Procedures, and Section 7.1 (including the NCCP *Operational Protocols*) and Section 7.2 of the NCCP would ensure potential impacts on special-status avian species remain *less than significant.*

4.5.3 Special-Status Mammal Species

Six special-status mammal species have a moderate or high potential to occur within the PSA based on the presence of CNDDB occurrences nearby and suitable habitat within the PSA: American badger, northwestern San Diego pocket mouse, San Diego black-tailed jackrabbit, San Diego desert woodrat and southern mule deer.

Direct Impacts

Permanent impacts on special-status mammal species habitat are anticipated as a result of the removal of vegetation for permanent placement of steel poles within their habitat, specifically within the sensitive natural communities identified in Table 5: Potential Impacts on Vegetation Communities. Because this area is small compared to the regional habitat available for these species, and because these permanent impacts would not result in the long-term decline of these species, there would be no significant permanent impacts on northwestern San Diego pocket mouse, San Diego black-tailed jackrabbit and San Diego desert woodrat. Permanent impacts on these species would be less than significant.

Power lines and other Proposed Project-related structures provide potential perching opportunities for raptor species, which can increase the potential for predation of wildlife, including special-status mammal species, by raptors. Because the Proposed Project involves installing an additional powerline in Segment 2, the extent of predation on special-status mammals is anticipated to increase slightly, but is not expected to result in a long-term decline of any special-status mammal species. Temporary indirect impacts on special-status mammal species include the temporary loss of habitat from vegetation trimming resulting from Proposed Project construction activities.

Indirect Impacts

The Proposed Project may also result in impacts on special-status mammal species if non-native noxious weed seeds are spread within occupied habitats during construction. If allowed to establish and spread, these weeds could alter the habitat for these species. Temporary impacts also may result from construction noise and ground vibration, as animals may be deterred from inhabiting or foraging in areas near such activities. Because these species are most active at night temporary impacts associated with nighttime construction activities may result in temporary avoidance of construction areas due to lighting, temporarily reducing the animal's ability to forage at night. However, these temporary impacts would be short-term and located in only a few work areas at a time during construction of the Proposed Project. The Proposed Project may also result in indirect impacts on special-status mammal species if non-native weed seeds are spread within occupied habitats during construction. If allowed to establish and spread, these weeds could permanently alter the habitat for these species.

Avoidance and Minimization Measures

To ensure that special-status mammals are not impacted as a result of the Proposed Project, SDG&E will implement Operational Protocol #11, which requires that all employees receive environmental training on special-status species potentially occurring with the Proposed Project area. SDG&E also will implement Operational Protocols #2, #4, #5, #7, and #10, which prohibit construction personnel from conducting activities that may harm or harass special-status wildlife species (i.e., hunting, feeding, harassing, relocating and collecting wildlife). SDG&E will reduce impacts associated with the spread of noxious weeds in the construction areas by conforming to the habitat reclamation procedures outlined in Section 7.2 of the NCCP. In addition, temporary lighting at staging and storage areas will be directed on site and away from any sensitive receptors as part of its Standard Operating Procedures for linear projects.

Significance Determination: The area of habitat loss is small compared to the special-status small reptile habitat that is available regionally, and the permanent impacts would not result in the long-term decline in any special-status reptile species, therefore there would be no substantial adverse impact on special-status reptiles resulting the Proposed Project. Implementation of Standard Operating Procedures and Section 7.1 (including the NCCP Operational Protocols) and Section 7.2 of the NCCP would ensure potential impacts to special-status mammals remain *less than significant.*

4.6 JURISDICTIONAL RESOURCES

A total of 100 drainages or features potentially subject to USACE, CDFW, and RWQCB jurisdiction are located within the PSA. Three proposed poles are located within 25 feet of a jurisdictional feature: 7, 72, and 71. Although these poles are very close to a jurisdictional feature, work areas would be designated to one side of the pole (away from the jurisdictional feature) to avoid impacts. A total of 30 jurisdictional drainages either occur adjacent to or cross existing access roads, and 6 jurisdictional drainages occur within or adjacent to proposed staging yards. A full summary of each resource and is found in Appendix E of the Jurisdictional Delineation Report (Appendix C Jurisdictional Delineation Report for the SDG&E TL 6975 Escondido to San Marcos New 69 kV Project).

Significance Determination: No temporary or permanent direct or indirect impacts to jurisdictional features are anticipated to occur during construction of the Proposed Project.

4.7 PRESERVE LANDS

The Proposed Project traverses designated preserves and open space easements. SDG&E would avoid potential impacts and ensure the protection and conservation of these lands when possible in accordance with the SDG&E Subregional NCCP. SDG&E would also implement operational protocols that apply to construction and operation and maintenance activities. The Proposed Project would traverse San Elijo Hills Open Space in the City of San Marcos; permanent impacts would occur on two small areas. The Proposed Project would traverse University Commons Preserve managed by the Center for Natural Lands Management and includes several temporary and permanent impacts adjacent to existing access roads. The Proposed Project would temporarily and permanently impact several areas within the Rancho Dorado HOA Preserve in the City of San Marcos, and Carrillo Ranch Reserve and Carlsbad Raceway Open Space Preserve in the City of Carlsbad. Temporary impacts would occur within the County of San Diego Sage Hill Preserve, primarily within existing disturbed areas of an existing SDG&E access road.

The Proposed Project would traverse several habitat conservation plan lands within the MHCP and the draft North County MSCP. Small temporary and permanent impacts would occur to several of these lands. A small portion of the Proposed Project, the satellite staging yard in Kearney Mesa, would be located within the boundaries of the City of San Diego Subarea Plan of the San Diego MSCP, however the land is developed and not within the Multi-Habitat Planning Area. Portions of the Proposed Project would be within the geographic limits of the MHCP in the City of Carlsbad Subarea Plan, in the draft City of San Marcos Subarea Plan, and in the draft City of Escondido Subarea Plan. Within the unincorporated areas of the county, the Proposed Project is primarily within Pre-Approved Mitigation Areas of the draft North County MSCP. Temporary and permanent impacts would occur within these areas.

Direct permanent impacts would occur to preserve lands by the permanent removal of vegetation for the installation of permanent Proposed Project features such as new steel poles and support structures.

Indirect impacts to preserve lands would occur by impacts that could occur to vegetation communities, special-status plant and animal species and local wildlife movement (including local species home ranges and dispersal) that could result during construction of the Proposed Project from increased human presence, construction-generated noise and nighttime lighting. These indirect impacts may result in avoidance of the site vicinity during local movements, such as home range and dispersal, due to artificial light, noise, degraded surrounding habitat, and other anthropogenic influences.

Overall, impacts to preserves and to habitat conservation plan lands would be minimal, using existing roads and occurring on disjoint features that would not permanently adversely interfere with drainages, topography, jurisdictional features, wildlife corridors, wildlife movement or preserve assembly. Implementation of these Standard Operating Procedures, and Section 7.1 (including the NCCP *Operational Protocols*) and Section 7.2 of the NCCP would ensure potential impacts on preserve lands remain *less than significant.*

4.8 WILDLIFE MIGRATION CORRIDORS

Significant impacts to wildlife movement would occur if a wildlife movement corridor is interrupted by a feature that physically blocks wildlife movement (i.e., a roadway) or if habitat suitable to support wildlife in the movement corridor is directly removed during construction or indirectly affected by construction noise or dust. As discussed in Section 3.7, Habitat Connectivity and Wildlife Corridors, the Proposed Project is located within the Pacific Flyway and contains connectivity for both terrestrial and aquatic animals.

No permanent features would be installed that would result in a physical barrier to large-scale wildlife movement, and no permanent direct impacts to wildlife movement corridor would occur because the Proposed Project is within an existing utility corridor. Only a minor additional ROW is required. Permanent impact areas would be minor and discontinuous, with breaks of natural habitat between them. Construction activities associated with the Proposed Project may result in temporary impacts to normal animal movement due to construction equipment and materials, excavations associated with the pole removals and new pole locations, increased human presence, increased noise levels, and increased vehicular traffic along access roads. However, construction activities would not occur in all areas simultaneously, resulting in minor impacts on wildlife movement at any point in time and at any given location. Construction would occur in segments which would minimize the overall disruption to animals; in addition, trenching operations would also be staged in intervals so that only a maximum of 500 feet of trench would be left open at any one time. This would allow terrestrial wildlife to move throughout most of the Proposed Project impact area during construction. Temporary restrictions on wildlife movement would also be localized to only a portion of the potential wildlife movement area that animals can use at any one time because wildlife can use areas outside of the proposed construction areas.

Significance Determination: Permanent and temporary direct and indirect impacts resulting from the Proposed Project would not create a substantial barrier for wildlife movement, and would not adversely affect home range and dispersal due to the minimal area impacted; and implementation of these Standard Operating Procedures, and Section 7.1 (including the NCCP *Operational Protocols*) and Section 7.2 of the NCCP would ensure potential impacts on therefore, impacts on habitat linkages and wildlife migration corridors would be *less than significant*.

4.9 USFWS CRITICAL HABITAT AREAS

Critical habitat for coastal California gnatcatcher overlaps both the temporary and permanent impact areas associated with the Proposed Project (Appendix A, Figure 3: Preserves and Critical Habitat). The Proposed Project would result in 0.7 acre of permanent and 3.4 acres of temporary impacts on critical habitat for coastal California gnatcatcher at multiple locations throughout the alignment due to vegetation clearing and ground disturbance.

The Proposed Project may result in permanent impacts on critical habitat if non-native invasive weeds are spread during construction; if allowed to establish and spread, non-native invasive weeds may change the species composition of critical habitat. Additionally, construction vehicles and equipment may cause temporary indirect impacts such as increase in sedimentation, erosion, and trampling, and an increase in the amount of fugitive dust, which would decrease the photosynthetic vigor of plants that coastal California gnatcatcher may rely upon within these critical habitat areas.

Consistent with the SDG&E Subregional NCCP, the Proposed Project has been designed to avoid sensitive habitat areas when possible, by not placing new poles in drainage areas; using existing access roads where feasible; and placing any new facilities, staging areas, stringing sites, guard structures, and helicopter landing zones outside sensitive habitats when feasible. Where avoidance of sensitive habitat areas is not possible, or where sensitive habitat areas exist adjacent to the Proposed Project work areas, implementation of the measures in Sections 7.1 and 7.2 of the SDG&E Subregional NCCP would further minimize impacts in sensitive natural communities. Specifically, SDG&E will demarcate the boundaries of work limits and sensitive habitats and resources that will be avoided in accordance with Operational Protocol #14. Operational Protocols #1 and #39 would reduce fugitive dust resulting from construction vehicles by requiring that vehicles drive at speeds of 15 mph or less, and that regular watering occurs, respectively.

Significance Determination: Implementation of these Standard Operating Procedures, and Section 7.1 (including the NCCP *Operational Protocols*) and Section 7.2 of the NCCP would ensure potential permanent and temporary direct and indirect impacts on USFWS Critical Habitat areas would be *less than significant.*

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Appendix A
Figures

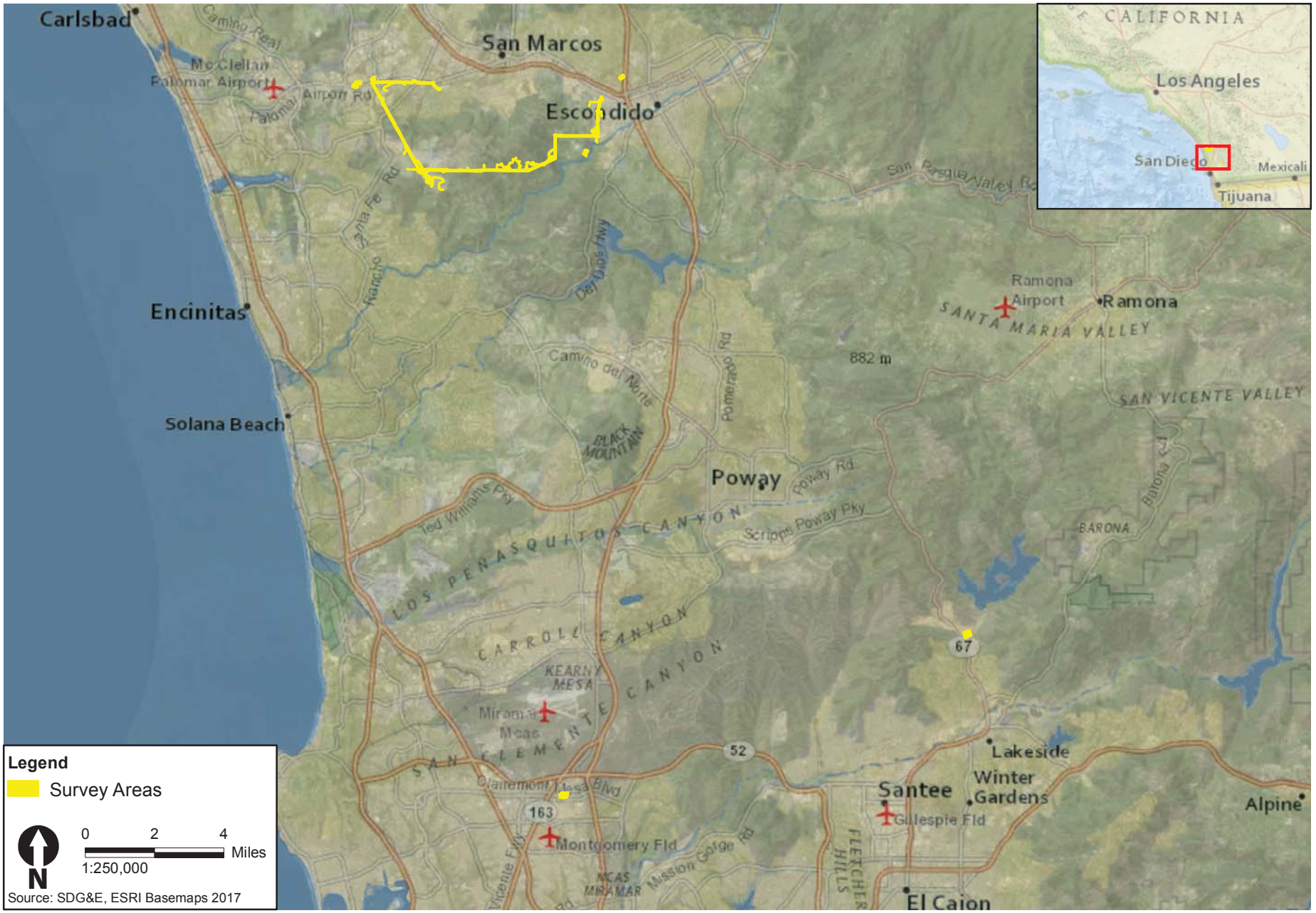

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Figure 1
Project Location
SDG&E Tie-Line 6975 Project

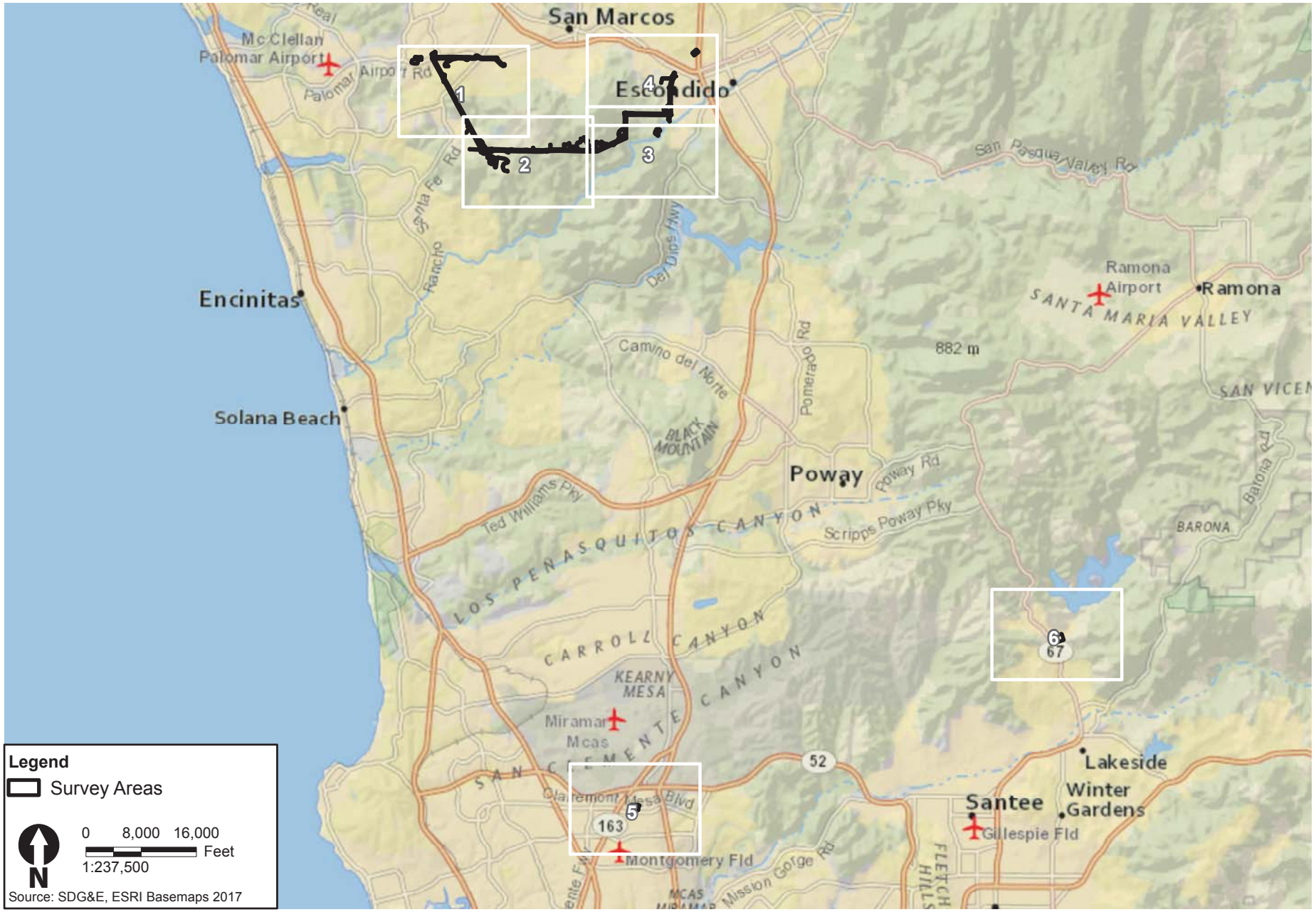

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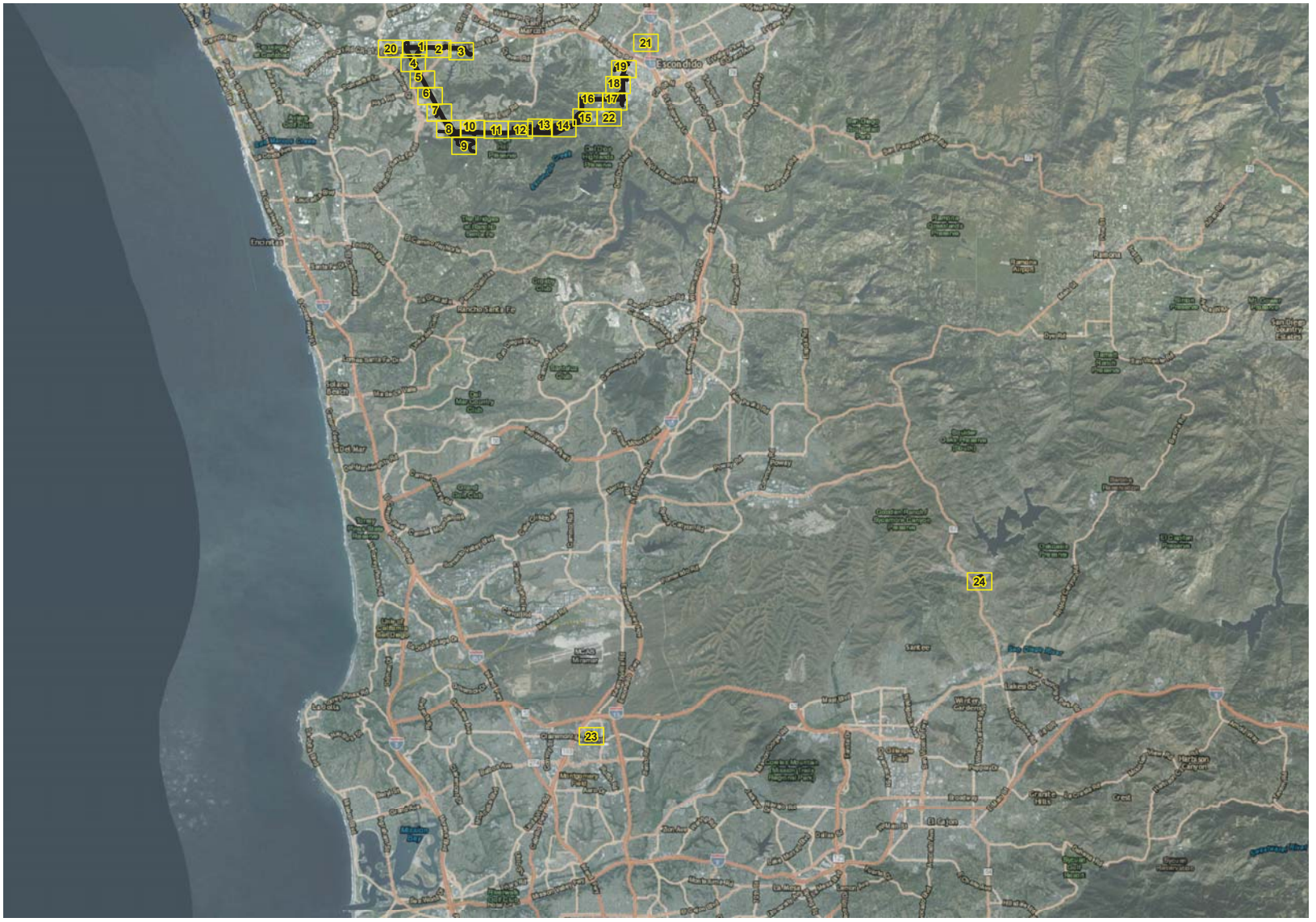
Figure 2 - Overview
Project Vicinity
SDG&E Tie-Line 6975 Project



Legend

- Survey Area
- Detail Map Sheets

Source:ICF; KP; SDG&E; ESRI 2017

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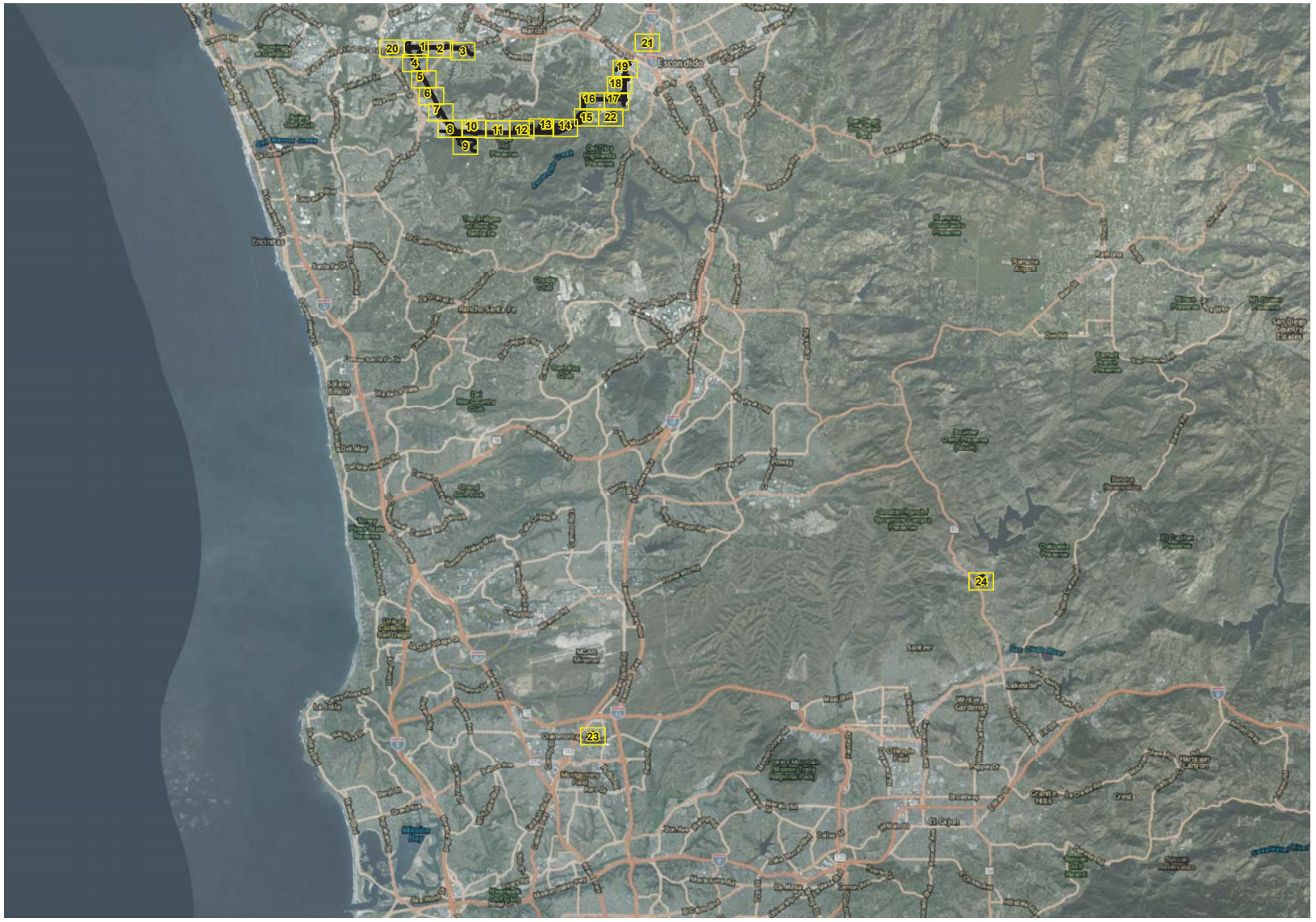
Figure 3
TL6975 Preserves and Critical Habitat
SDG&E Tie-Line 6975 Project



Legend

Survey Area

Detail Map Sheets

Source:ICF; KP; SDG&E; ESRI 2017

0 8,000 16,000 Feet

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Figure 4
Vegetation and Special-Status Species
SDG&E Tie-Line 6975 Project

Appendix B

2016 Coastal California Gnatcatcher, Least Bell's Vireo, and Southwestern Willow Flycatcher Survey Report

2016 Coastal California Gnatcatcher, Least Bell's Vireo and Southwestern Willow Flycatcher Surveys: TL 6975, San Diego County, California

Prepared for:

SDG&E

Prepared by:

ICF International
525 B Street, Suite 1700
San Diego, California 92101

August 2016

ICF International. 2016. Coastal California Gnatcatcher, Least Bell's Vireo and Southwestern Willow Flycatcher Surveys: TL 6975, San Diego County, California. August. (ICF 00191.16) Prepared for San Diego Gas and Electric, San Diego, California.

Contents

Page

1.0 Introduction 1
Project Description 1
Project Location 1
Geographical Setting 1
Species Account 2
2.0 Methods 4
3.0 Results 5
4.0 References 10
5.0 Certification 11
Appendix A USFWS Survey Notification **13**
Appendix B Species List and Avian Resources **14**
Appendix C Coastal California Gnatcatcher Territory Status and Observations **15**
Appendix D SWFL Survey Form **16**

Figures **Follows Page**

1. Regional Location 1
2. Project Vicinity 1
3. Coastal California Gnatcatcher Survey Area 4
4. Least Bell's Vireo and Southwestern Willow Flycatcher Survey Area 4
5. Locations of 2016 Coastal California Gnatcatcher Territories 5
6. Locations of 2016 Least Bell's Vireo Transients 5
7. Avian Resources 14

Tables **Page**

Table 1. 6
Table 2. 8
Table 3. 9
Table 4. 9

1.0 Introduction

This report documents the results of the protocol presence/absence surveys conducted by ICF International (ICF) in 2016 for Coastal California Gnatcatcher (*Polioptila californica californica*), Least Bell's Vireo (*Vireo bellii pusillus*) and Southwestern Willow Flycatcher (*Empidonax traillii extimus*) for TL 6975 in San Marcos and Escondido, San Diego County, California (Figure 1 and Figure 2).

Project Description

San Diego Gas and Electric (SDG&E) proposes to construct and operate a new, approximately 12-mile 69kV transmission line (TL 6975) between the existing SDGE&E Escondido and San Marcos Substations. The reliability project would provide a second circuit in order to

- Achieve 137 MVA continuous/emergency rating
- Eliminate real time 69kV Congestion at San Marcos
- Increase reliability at San Marcos Substations
- Eliminate potential Category B violations

The proposed project includes the reconductoring (with potential replacement of some structures) of an existing de-energized 138 kV transmission line (TL 99911) from Escondido Substation to Meadowlark Junction; the construction of a new transmission line parallel to an existing 138 kV transmission line (TL13825) from Meadowlark Junction to and along County Highway S12; and the intercept and double circuiting of TL 680C at San Marcos Boulevard/County Highway S12 to San Marcos Substation. A portion of the TL 680C double circuit may be underground from structure Z114431 to San Marcos Boulevard. Figure 2 shows the proposed project alignment.

Project Location

TL 6975 is located in northern San Diego County, California, within the City of San Marcos, City of Escondido and the unincorporated community of Harmony Grove. The powerline is located east of Interstate 15 (I-15), south of California Highway 78 (HWY-78) and north of Elfin Forest Recreational Area and can be found on the USGS San Marcos, Rancho Santa Fe, and Escondido 7.5-minute quadrangles (Figure 2).

Geographical Setting

TL 6975 is in the coastal hills of San Diego County's northern valley. It traverses through developed, residential, and naturally vegetated areas through steep slopes, canyons and drainages. Surrounding land use consists of residential, commercial, recreational, and undeveloped. TL 6975 ranges in elevation from ~335 to 1,050 feet above mean sea level (AMSL).

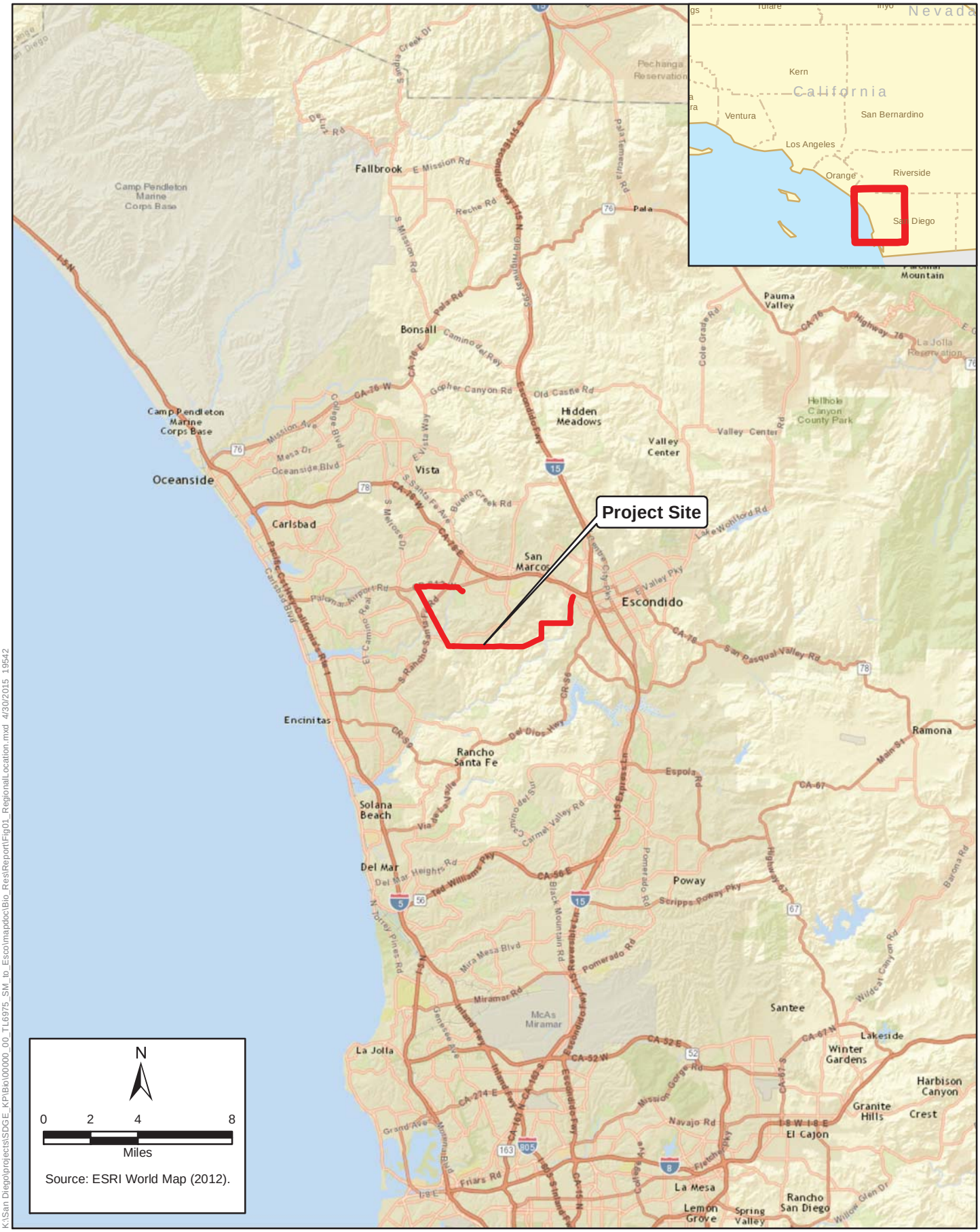

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Figure 1
SDG&E TL6975 Regional Location

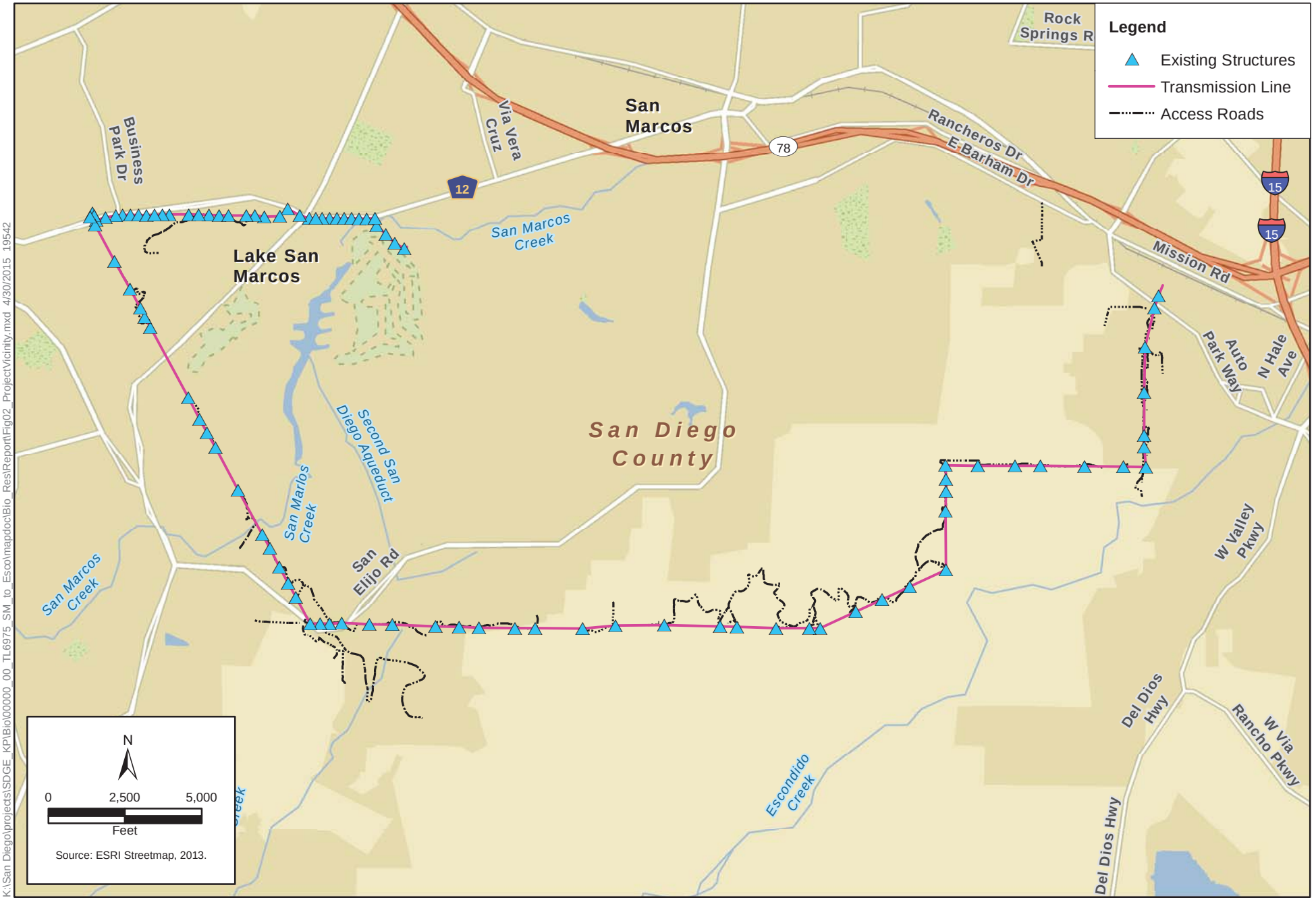


Figure 2
SDG&E TL6975 Project Vicinity

Species Account

Coastal California Gnatcatcher

The Coastal California Gnatcatcher (*Polioptila californica californica*) is a small resident insectivorous species whose occurrence is strongly associated with sage scrub habitats found throughout southern California into northern Baja California, Mexico. Although Coastal California Gnatcatchers have a close association with sage scrub, this species has also been documented using coastal sage-chaparral scrub, chamise chaparral, and other habitat types (Campbell et al. 1998, Bontrager 1991). The USFWS listed this species as threatened in 1993. It is considered a California Department of Fish and Wildlife Species of Special Concern. Critical habitat was designated for this species in 2000 and revised in 2007 (USFWS 2000, USFWS 2007).

Historically, Coastal California Gnatcatchers range extended from southern Ventura County southward through Los Angeles, Orange, Riverside, San Bernardino, and San Diego counties, and into Baja California, Mexico, to approximately 30 degrees north latitude near El Rosario (Atwood 1990). Habitat destruction, fragmentation and modification have led to this species' decline (USFWS 1993). Loss to agriculture and urban development were leading causes until 2003 when the Cedar Fire destroyed almost 28% of the remaining habitat that the USFWS believed to be suitable for the Coastal California Gnatcatcher (Bond and Bradley 2003). In October 2007, several fires burned approximately 369,000 acres in San Diego County. The extent of damage to habitat types and listed species is currently being analyzed by the USFWS.

Least Bell's Vireo

The Least Bell's Vireo (*Vireo bellii pusillus*) breeds in southern California and northwestern Baja California, with the majority of the population located in San Diego County. The Least Bell's Vireo is a small, migratory insectivore that prefers dense riparian vegetation for foraging and nesting. The California Department of Fish and Wildlife (CDFW) listed the Least Bell's Vireo as endangered in 1980. The U. S. Fish and Wildlife Service (USFWS) followed suit in 1986. Critical habitat was designated for this subspecies in 1994 along the southwestern coastline of California below Santa Barbara (USFWS 1994).

Historically, Least Bell's Vireo was a common to locally abundant species found in lowland riparian habitats between northern California and coastal southern California. However, loss of riparian habitats and Brown-Headed Cowbird (*Molothrus ater*) parasitism led to a large population decline. When USFWS first listed the bird in 1986, the population was estimated to be just 300 pairs. The latest Five Year Review, dated September 2006, reported a 10-fold increase in population size since the time of its listing to an estimated 2,968 territories (USFWS 2006). The vireo population increase is largely attributed to cowbird control and habitat restoration and preservation (Kus 1999, Kus and Whitfield 2005).

Least Bell's Vireos typically begin to arrive on their breeding grounds by mid to late March. Males tend to arrive first and establish territories; females arrive a few days later. Site fidelity is high among adult Least Bell's Vireo, with many birds returning to the same territory each year and even using the same shrub as previous years (Salata 1983, Kus 2002). Nests are typically placed within 1 meter of the ground in dense shrubby riparian habitat, and a diverse canopy height is required for foraging, with willows often dominating the canopy layer (Salata 1983). Nesting lasts from early April through July, at which some vireos may begin to depart; however most adults and juvenile birds remain on the breeding grounds into late September/early October. In southern California, Least Bell's Vireo nest sites were most frequently located in riparian stands between 5 and 10 years old (SANDAG and RECON 1990). Based on rigorous statistical analysis of Least Bell's Vireo habitat structure and

composition, this species appears to preferentially select sites with large amounts of shrub and tree cover, a large degree of vertical stratification, and small amounts of aquatic and herbaceous cover (SANDAG and RECON 1990).

Southwestern Willow Flycatcher

The Southwestern Willow Flycatcher (*Empidonax traillii extimus*) is one of four subspecies of willow flycatcher in the United States that breeds in southern California and was listed as an endangered species by CDFW in 1991 (CDFW 2015) and the USFWS in 1995 (USFWS 1995). Critical habitat for this species was revised by the USFWS in 2013 (USFWS 2013). The other three willow flycatcher subspecies are not listed as sensitive by the federal or state governments.

This small, insectivorous, migratory bird is usually found in dense riparian vegetation occurring along streams or other wetlands (Sogge et al. 2010). The structure of these habitats typically consists of a dense midstory and understory and can also include a dense canopy (USFWS 1995). However, suitable vegetation is not uniformly dense and typically includes interspersed patches of open habitat. Typical plant species associated with their habitat include willow, mule-fat, box-elder (*Acer negundo*), stinging nettle (*Urtica* spp.), cottonwood (*Populus* spp.), tamarisk (*Tamarix* spp.), and Russian olive (*Elaeagnus angustifolia*). Plant species composition does not seem as important as a dense twig structure and an abundance of live, green foliage (Sogge et al. 2010). Within the habitat structure parameters discussed above, Southwestern Willow Flycatcher does demonstrate adaptability in that it can occupy riparian habitats composed of native broadleaf species, a mix of native and exotic species, or monotypic stands of exotics (Sogge et al. 2010).

The Southwestern Willow Flycatcher is known to breed in southern California, Arizona, New Mexico, extreme southern portions of Nevada and Utah, far western portions of Texas, possibly in southwestern Colorado, and in extreme northwestern Mexico (USFWS 1995). When listed by the USFWS in 1995, only 577 individuals were known to exist. The decline of this species was mostly due to disturbance and removal of riparian vegetation; water diversions and groundwater pumping; limited food availability and nesting sites; mismanagement of livestock; recreational development; and brood parasitism by the Brown-Headed Cowbird (USFWS 1995).

Southwestern Willow Flycatchers usually arrive on their breeding grounds in southern California in early-May and remain through late-July. Timing of departure of locally breeding birds is difficult to determine because of their extremely secretive behavior at that time, coupled with more abundant migrants of the three other willow flycatcher subspecies passing through the area. Migrants of subspecies other than Southwestern Willow Flycatcher, such as the northwestern subspecies (*E. t. brewsteri*), are widespread as they pass through southern California. Other subspecies occurrences are mainly from late-May through mid-June, when generally uncommon, and from late-July through September, when fairly common. In light of these migration windows, definitive identification of a willow flycatcher as the southwestern subspecies usually occurs between June 14 and July 17 (Sogge et al. 2010).

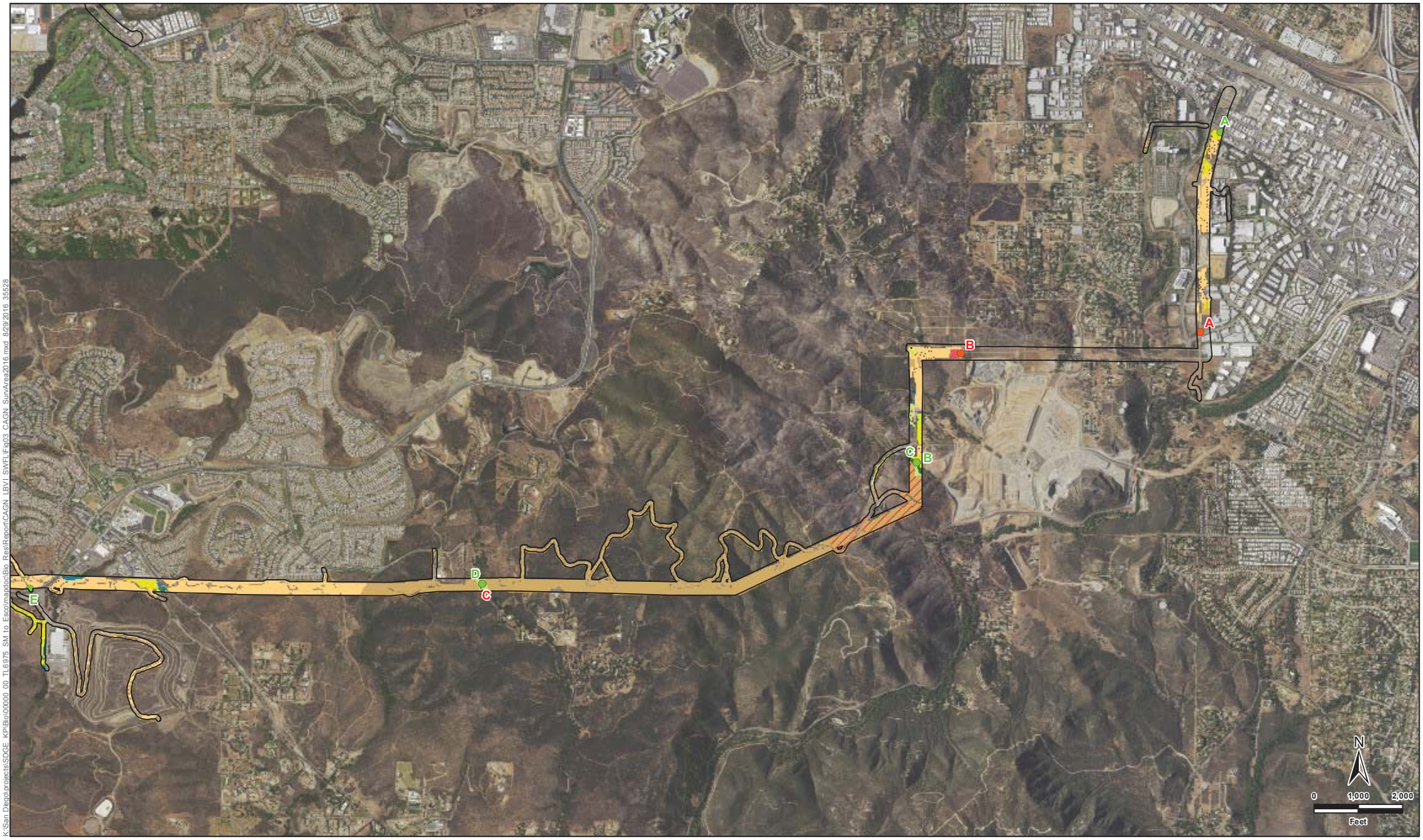
2.0 Methods

Coastal California Gnatcatcher surveys were conducted at the study area between March 15 and June 12, 2016 (Table 1). Six protocol surveys were conducted at least 1 week apart and in accordance to USFWS protocol (USFWS 1997). All potentially suitable gnatcatcher habitat including coastal sage scrub, chaparral, and grassland vegetation communities was surveyed during the first survey of the entire span of TL 6975. After the initial survey, six survey areas were determined to contain suitable habitat and were included for the remaining 5 surveys (Table 2, Figure 3). Habitat determined to be unsuitable was excluded from further surveys. Pre-recorded audiotape playback was used to determine presence of Coastal California Gnatcatcher. Surveys were performed during morning hours prior to 1200, when gnatcatchers are most active. Some surveys finished between 1200 and 1300 when weather conditions were good (<70°F) and birds were observed to be active.

Methods for the Least Bell's Vireo surveys adhered to the recommended guidelines provided by the USFWS for presence/absence surveys (USFWS 2001). After the initial survey of all riparian habitat within TL 6975, one area was identified and determined to contain suitable vireo habitat (Figure 4). All other areas of riparian were excluded because they were either not suitable or too small to support a vireo territory (< 0.1 acres). ICF biologists conducted 8 presence/absence surveys for Least Bell's Vireo between May 9 and July 30, 2016 (Table 1). All visits were performed during morning hours prior to 1130, when vireos are most active, and included frequent stops to look for individuals and listen for vocalizations (songs and/or scolds).

Five protocol Southwestern Willow Flycatcher surveys of the same survey area as the Least Bell's Vireo were conducted following the amended survey methodology between May 21 and July 5, 2015 (Sogge et al. 2010; U.S. Fish and Wildlife Service 2000) (Figure 4, Table 1). One survey occurred within the first survey period (May 15–31), 3 within the second survey period (June 1–24), and 1 within the third survey period (June 25–July 17). Each survey was conducted at least 5 days apart and was concluded by 1130. Surveys included thorough coverage of all potentially suitable habitats, which consisted of slowly walking with frequent stops to look, listen, and play recordings of flycatcher vocalizations. Recordings were played at distance intervals of approximately 75–100 feet, and only while stationary and after first looking and listening for any potential flycatchers.

For all three species, surveys were not conducted during inclement weather such as extreme hot or cold temperatures, fog, high winds, or rain (Table 1). For each bird encountered, biologists recorded age (adult of juvenile), sex, and breeding status (paired, single, undetermined, or transient). Vireo and flycatchers were considered transients if they were detected once during the season. All surveys were led by Kimberly Ferree (USFWS Permit No. TE-122632), with assistance from Courtney Casey, Camilla Estes, Ryan Layden, Nicole Salas, and Julia Vandergardner. In conjunction with protocol gnatcatcher, vireo and flycatcher surveys, all other bird species that were detected during the survey were recorded. In addition, bird species on the County of San Diego Sensitive Animal List (County of San Diego 2010) were plotted on a map. A species list and map of the sensitive county birds that were detected are provided (Appendix B and Figure 7).



SurveyArea
Survey Area Begin Point
Survey Area End Point

Vegetation Communities

Diegan Coastal Sage Scrub
Diegan Coastal Sage Scrub-Disturbed
Diegan Coastal Sage Scrub-Burned
Southern Maritime Chaparral
Southern Maritime Chaparral-Burned
Coastal Sage-Chaparral Transition
Non-Native Grassland
Coast Live Oak Woodland
Southern Coast Live Oak Riparian Forest
Non-Native Woodland
Eucalyptus Woodland

Figure 3-1
California Gnatcatcher Survey Areas
SDG&E TL6975

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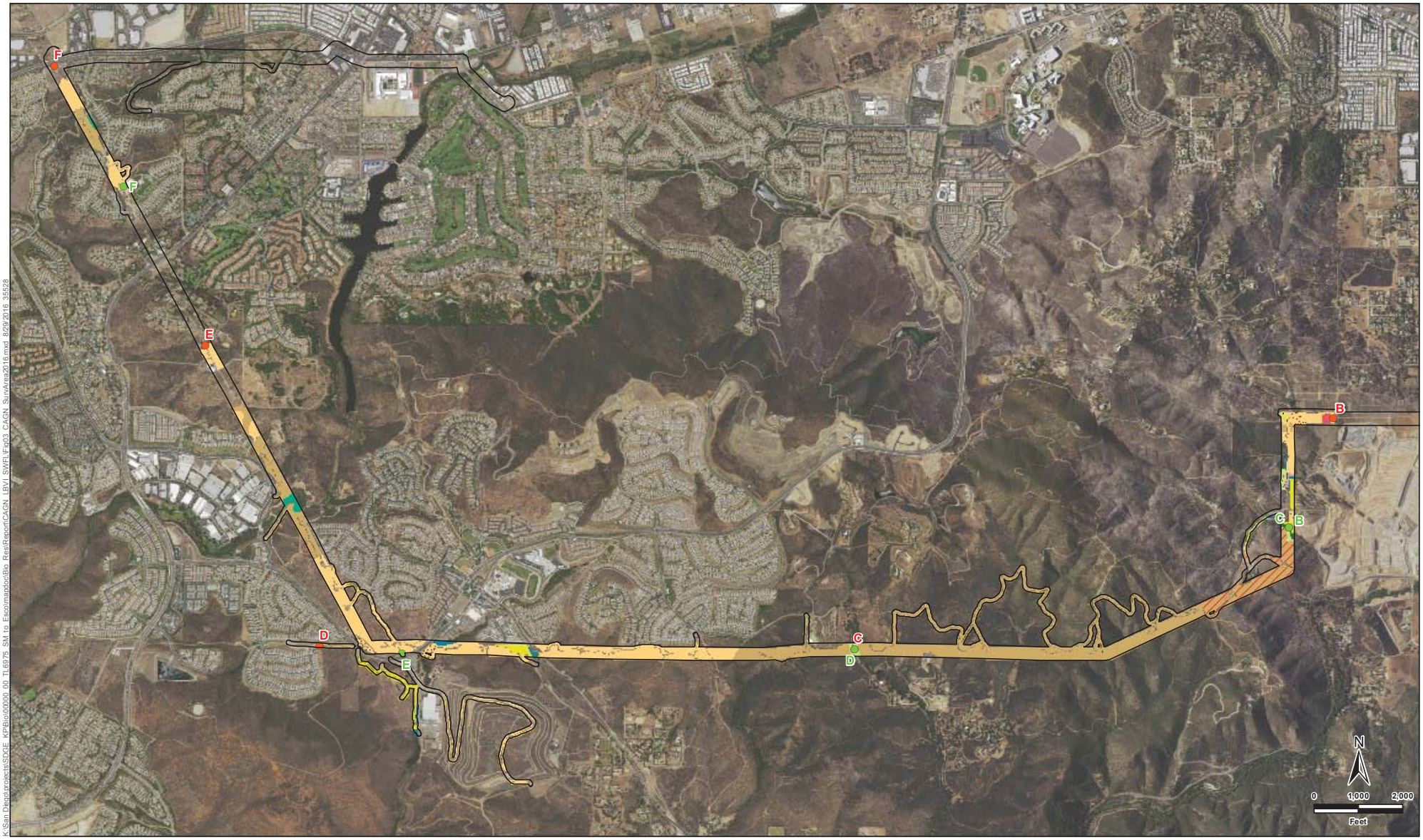

Figure 3-2
California Gnatcatcher Survey Area
SDG&E TL6975

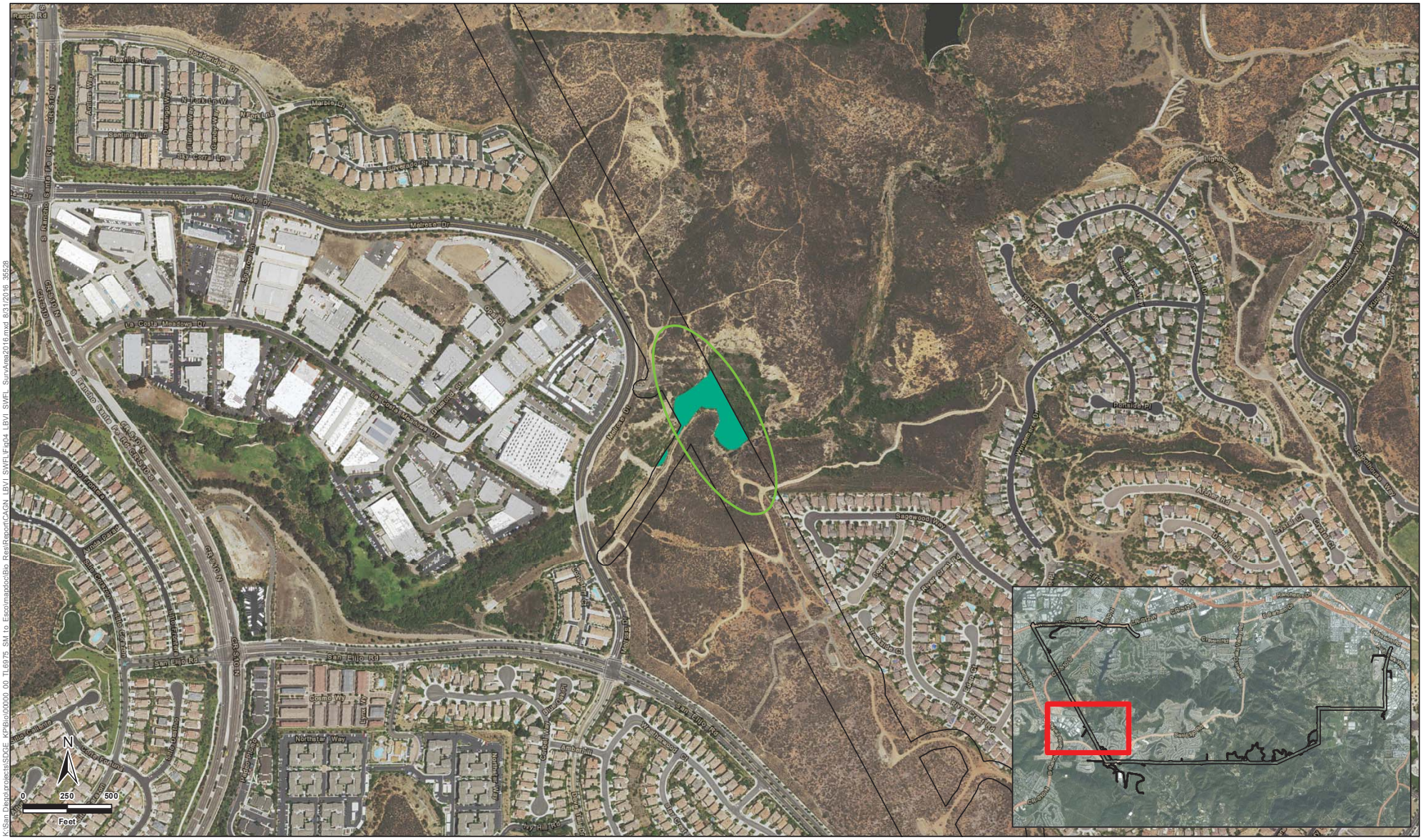

Figure 4
Least Bell's Vireo and Southwestern Flycatcher Survey Area
SDG&E TL6975

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3.0 Results

Coastal California Gnatcatcher

A total of 33 Coastal California Gnatcatcher territories were identified during the 2016 focused surveys (Figure 5, Table 3). Nine territories were located in Survey Area C, 9 in Survey Area D, 13 in Survey Area D, and 2 in Survey Area F (Figure 5). No territories were observed in Survey Areas A and B. Of the 33 Coastal California Gnatcatcher territories detected, 22 were confirmed as paired; 3 were detected with nests, 1 was detected with nestlings, and 3 were detected with fledglings. Gnatcatcher territory status and observations are included in Appendix C.

Least Bell's Vireo

Two Least Bell's Vireo transients were detected on June 13 and July 5, 2016 (Figure 6, Table 4). It is possible this was a single individual detected during the three-week span. On both occasions the male was extremely responsive to playback and was observed singing high and moving around frequently in the vegetation for approximately 30 minutes. No female was detected. The survey area supports foraging and nesting habitat for Least Bell's Vireos and has high potential to support breeding Least Bell's Vireo.

Southwestern Willow Flycatcher

No Southwestern Willow Flycatchers were detected during the 2016 focused surveys. Suitable Southwestern Willow Flycatcher habitat typically consists of a dense mid-story and understory and can also include a dense canopy (USFWS 1995). The study area supports foraging and nesting habitat for Southwestern Willow Flycatchers. At this time, the survey area has moderate potential to support breeding Southwestern Willow Flycatchers.

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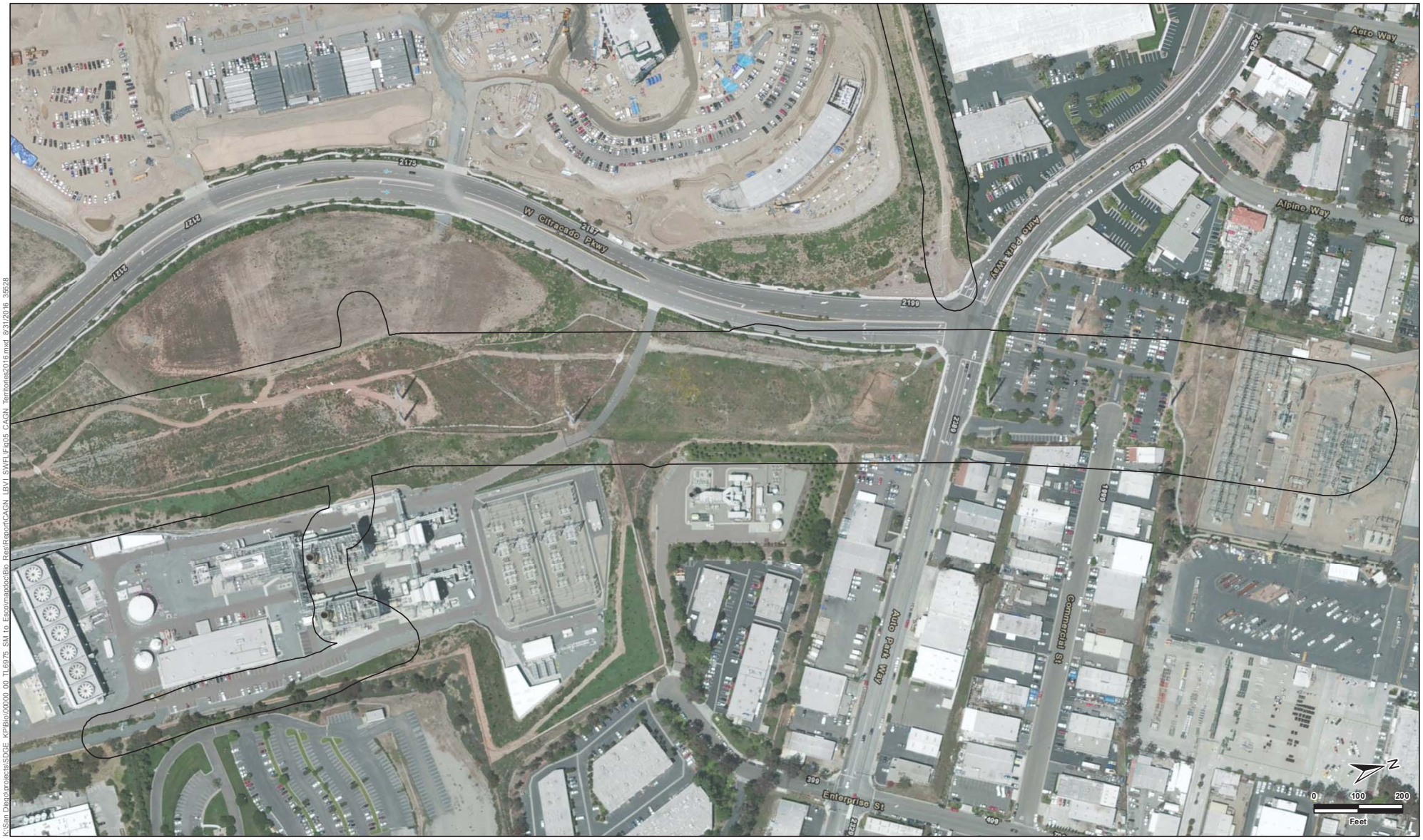
Survey Area

Figure 5 Index
Locations of 2016 California Gnatcatcher Territories
SDG&E TL6975



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SurveyArea

Figure 5-1
Locations of 2016 California Gnatcatcher Territories
SDG&E TL6975

SurveyArea

Figure 5-2
Locations of 2016 California Gnatcatcher Territories
SDG&E TL6975

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SurveyArea

Figure 5-3
Locations of 2016 California Gnatcatcher Territories
SDG&E TL6975

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SurveyArea

Figure 5-4
Locations of 2016 California Gnatcatcher Territories
SDG&E TL6975

Figure 5-5
Locations of 2016 California Gnatcatcher Territories
SDG&E TL6975

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Figure 5-6
Locations of 2016 California Gnatcatcher Territories
SDG&E TL6975

Figure 5-7
Locations of 2016 California Gnatcatcher Territories
SDG&E TL6975

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SurveyArea **California Gnatcatcher Territories**

Pair

Figure 5-8
Locations of 2016 California Gnatcatcher Territories
SDG&E TL6975

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SurveyArea **California Gnatcatcher Territories**

Pair

Figure 5-9
Locations of 2016 California Gnatcatcher Territories
SDG&E TL6975

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SurveyArea

California Gnatcatcher Territories

Pair

Undetermined Status

Figure 5-10
Locations of 2016 California Gnatcatcher Territories
SDG&E TL6975

SurveyArea **California Gnatcatcher Territories**

Pair

Figure 5-11
Locations of 2016 California Gnatcatcher Territories
SDG&E TL6975

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Figure 5-12
Locations of 2016 California Gnatcatcher Territories
SDG&E TL6975

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SurveyArea **California Gnatcatcher Territories**

Pair

Undetermined Status

Figure 5-13
Locations of 2016 California Gnatcatcher Territories
SDG&E TL6975

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SurveyArea **California Gnatcatcher Territories**

Pair

Figure 5-14
Locations of 2016 California Gnatcatcher Territories
SDG&E TL6975

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SurveyArea **California Gnatcatcher Territories**

Pair

Undetermined Status

Figure 5-15
Locations of 2016 California Gnatcatcher Territories
SDG&E TL6975

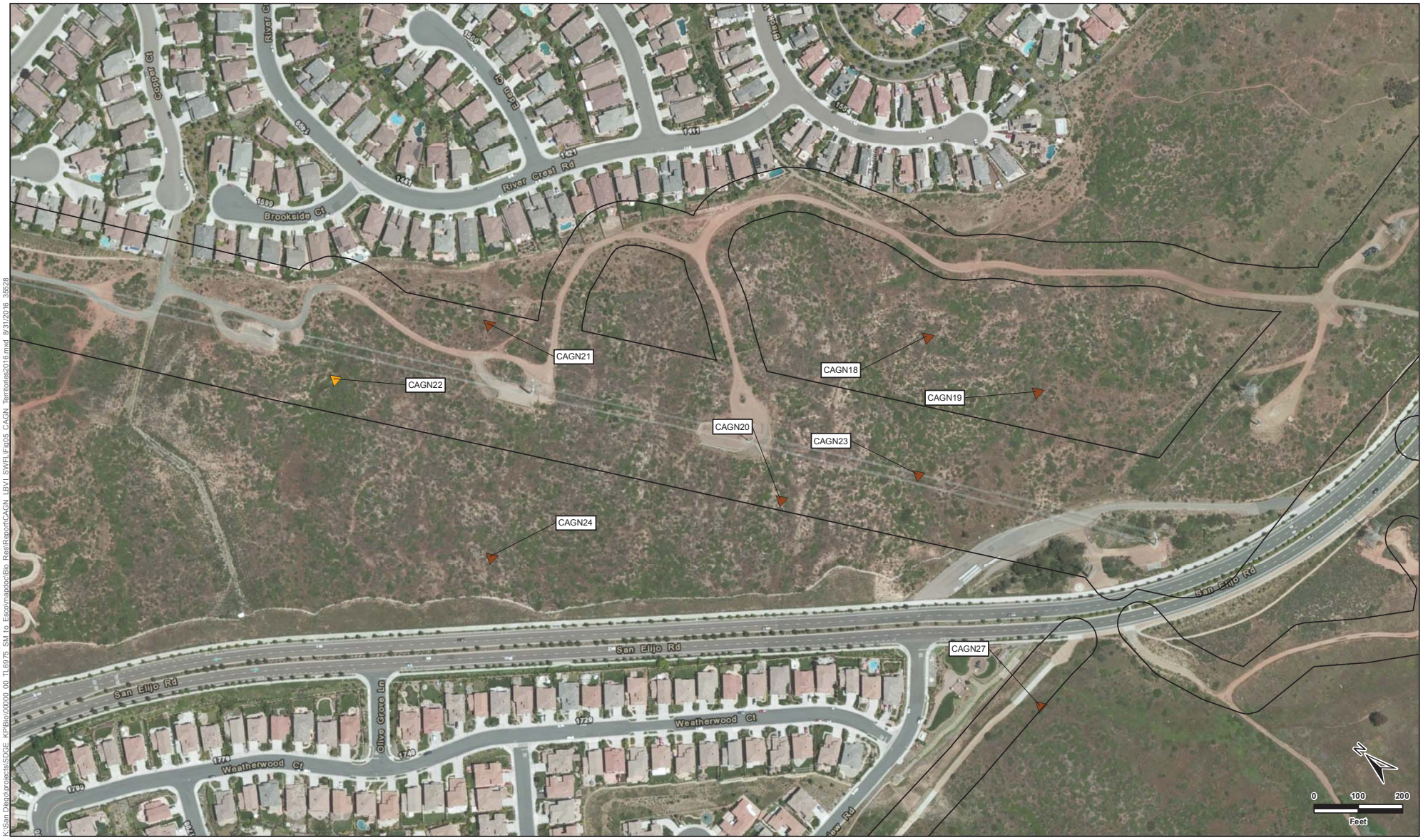

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Figure 5-16
Locations of 2016 California Gnatcatcher Territories
SDG&E TL6975

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Figure 5-17
Locations of 2016 California Gnatcatcher Territories
SDG&E TL6975

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SurveyArea **California Gnatcatcher Territories**

Undetermined Status

Figure 5-18
Locations of 2016 California Gnatcatcher Territories
SDG&E TL6975

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SurveyArea

Figure 5-19
Locations of 2016 California Gnatcatcher Territories
SDG&E TL6975

SurveyArea

California Gnatcatcher Territories

Pair

Figure 5-20
Locations of 2016 California Gnatcatcher Territories
SDG&E TL6975

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SurveyArea **California Gnatcatcher Territories**

Undetermined Status

Figure 5-21
Locations of 2016 California Gnatcatcher Territories
SDG&E TL6975

SurveyArea

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Figure 5-22
Locations of 2016 California Gnatcatcher Territories
SDG&E TL6975

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SurveyArea

Figure 5-23
Locations of 2016 California Gnatcatcher Territories
SDG&E TL6975

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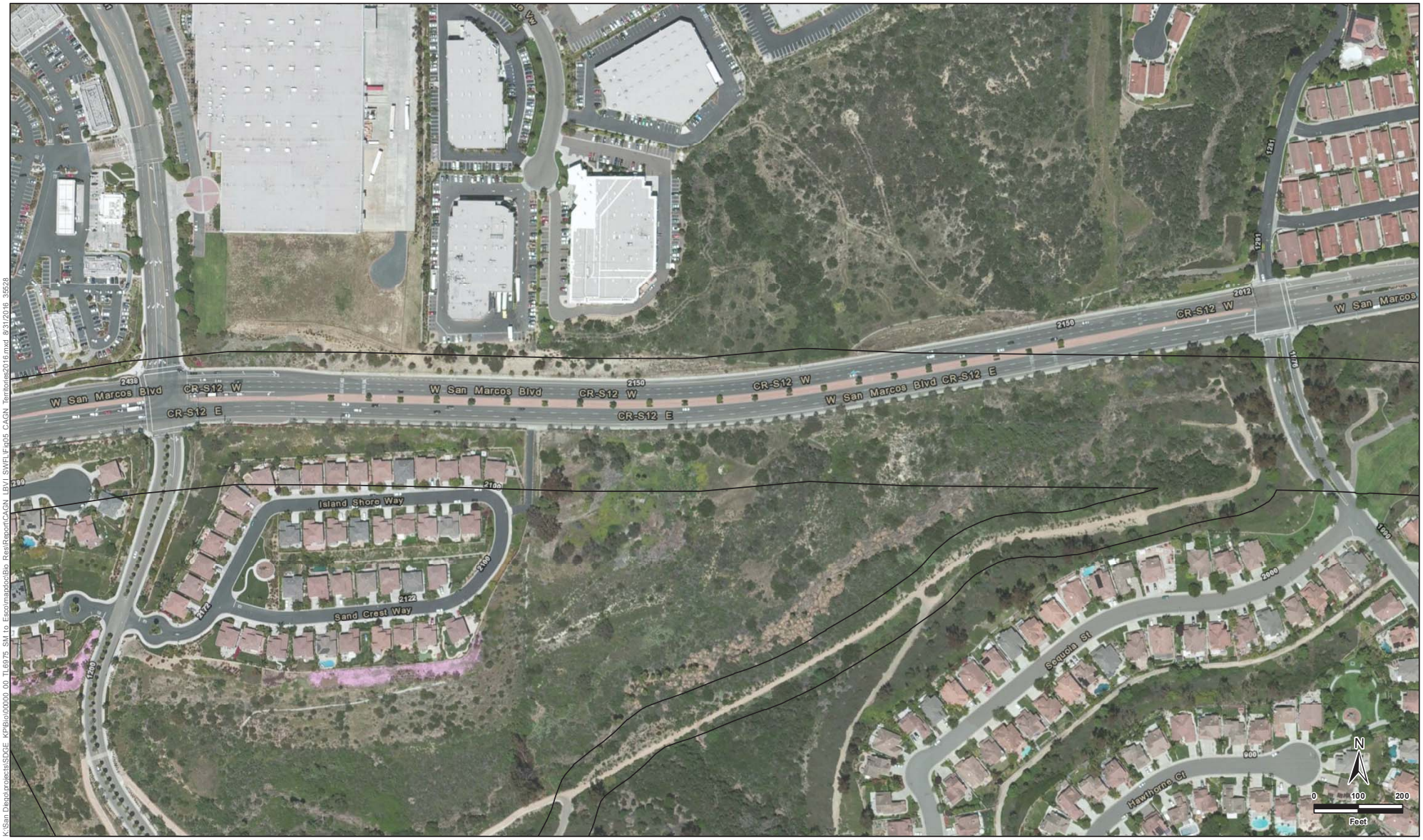
SurveyArea

Figure 5-24
Locations of 2016 California Gnatcatcher Territories
SDG&E TL6975



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SurveyArea

Figure 5-25
Locations of 2016 California Gnatcatcher Territories
SDG&E TL6975

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Survey Area **California Gnatcatcher Territories**

Individual(s)

Figure 6
Least Bell's Vireo Transient Locations
SDG&E TL6975

Table 1. Survey dates and weather conditions for Coastal California Gnatcatcher (CAGN), Least Bell's Vireo (LBVI) and Southwestern Willow Flycatcher (SWFL) protocol presence/absence surveys conducted for TL 6975, San Diego County, California, in 2016.

Survey Date	Survey Type/ Number	Survey Area (s)[1]	Start–End Time	Temperature (Start–Stop, °F)	Wind Speed (mph)	% Cloud Cover (Start–Stop)	Surveyors	Species Detected?
March 15	CAGN 1	A, B, F	0715-1235	53-60	0-3	100-80	K. Ferree	No
March 17	CAGN 1	D, E	0720-1245	52-61	1-6	100-50	K. Ferree	Yes
March 22	CAGN 1	C, D	0730-1210	55-63	1-6	95-60	K. Ferree	Yes
March 29	CAGN 2	A, B, F	0730-1310	48-61	1-6	10-80	K. Ferree	Yes
March 30	CAGN 2	C	0740-1045	45-61	0-6	0-80	K. Ferree	Yes
April 1	CAGN 2	D, E	0630-1220	52-66	0-3	80-0	K. Ferree R. Layden	Yes
April 12	CAGN 3	D	0625-1305	46-65	1-6	100-0	K. Ferree C. Estes N. Salas	Yes
April 13	CAGN 3	C, E	0807-1200	57-66	0-0	100-75	K. Ferree J. Vandergardner R. Layden	Yes
April 14	CAGN 3	A, B, F	0900-1225	63-68	1-10	90-10	K. Ferree	No
April 16	CAGN 3	E	0620-1005	52-75	0-6	0-0	K. Ferree	Yes
April 25	CAGN 4	D	0720-1230	55-64	0-6	100-95	K. Ferree J. Vandergardner R. Layden	Yes
April 27	CAGN 4	E	0615-1145	52-62	1-6	100-90	K. Ferree	Yes
April 28	CAGN 4	A, B	0610-1155	55-66	0-0	50-0	K. Ferree	Yes
May, 3	CAGN 4	C	0605-1050	55-68	0-0	25-0	K. Ferree R. Layden	Yes
May 9	CAGN 5/LBVI 1	B, E, LBVI/SWFL	0605-1210	57-67	0-0	100-0	K. Ferree C. Estes	No

Survey Date	Survey Type/ Number	Survey Area (s)[1]	Start–End Time	Temperature (Start–Stop, °F)	Wind Speed (mph)	% Cloud Cover (Start–Stop)	Surveyors	Species Detected?
May 10	CAGN 5	A, D, F	0550-1200	57-70	0-0	100-0	K. Ferree N. Salas	Yes
May 12	CAGN 5	C	0600-1145	61-68	0-0	100-0	K. Ferree C. Casey	Yes
May 21	LBVI 2/SWFL 1	LBVI/SWFL	1005-1100	68-72	0-0	0-0	K. Ferree	No
June 1	LBVI 3/ SWFL 2	LBVI/SWFL	0730-815	61	0-0	100-100	K. Ferree	No
June 5	CAGN 6	A, B	0530-1125	55-68	1-6	75-25	K. Ferree	No
June 7	CAGN 6	E, F	0545-1145	61-68	0-0	100-0	K. Ferree C. Casey	Yes
June 8	CAGN 6	C	0610-1050	61-72	0-3	100-0	K. Ferree N. Salas	Yes
June 12	CAGN 6	D, F	0550-1115	58-67	1-3	100-0	K. Ferree	No
June 13	LBVI 4/SWFL 3	LBVI/SWFL	0614-0715	61-62	0-0	100	K. Ferree	Yes (LBVI)
June 24	LBVI 5/SWFL 4	LBVI/SWFL	1040-1130	77-79	1-3	0-0	K. Ferree	No
July 5	LBVI 6/SWFL 5	LBVI/SWFL	0555-0655	60-61	0-0	95-100	K. Ferree	Yes (LBVI)
July 16	LBVI 7	LBVI/SWFL	0845-0940	69	0-0	0-0	K. Ferree	No
July 30	LBVI 8	LBVI/SWFL	0530-0620	65-67	0-1	0-0	K. Ferree	No

[1]Survey Areas are shown in Figures 3 and 4.

Table 2. Coastal California Gnatcatcher Survey Areas for TL 6975, San Diego County, California, in 2016.

Survey Area	Location Description	Begin Latitude	Begin Longitude	End Latitude	End Longitude
A	Auto Parkway to S. Andreasen Drive.	33° 7'24.32"N	117° 7'2.85"W	33° 6'39.76"N	117° 7'7.72"W
B	From oak riparian north to power line road, (west of Wilgen Road), adjacent to Harmony Grove development.	33° 6'9.99"N	117° 8'22.66"W	33° 6'34.40"N	117° 8'11.16"W
C	From oak riparian west to Questhaven Road.	33° 6'9.99"N	117° 8'22.66"W	33° 5'41.98"N	117°10'17.60"W
D	From Questhaven Road to end of small section west of San Elijo Road.	33° 5'41.98"N	117°10'17.60"W	33° 5'41.68"N	117°12'39.40"W
E	From locked gate on San Elijo Road to Via Del Corvo.	33° 5'40.06"N	117°12'17.63"W	33° 6'48.58"N	117°13'10.60"W
F	Water tower to Palomar Airport Road.	33° 7'23.77"N	117°13'32.72"W	33° 7'50.59"N	117°13'51.23"W

Table 3. Number of Coastal California Gnatcatcher territories identified during presence/absence surveys conducted for TL 6975, San Diego County, California, in 2016.

Survey Area	Known Pairs	Status Undetermined[1]	Number of CAGN Territories
A	0	0	0
B	0	0	0
C	7[2]	2	9
D	6[3]	3	9
E	8[4]	5	13
F	1[5]	1	2
Total	**22**	**11**	**33**

[1]Breeding pair was not confirmed; only a male or female was detected in the territory.
[2]Of the 7 pairs confirmed in Survey Area C, 1 pair was detected with a nest and 1 pair was detected with fledglings.
[3]Of the 6 pairs confirmed in Survey Area D, 1 pair was detected with a nest.
[4]Of the 8 pairs confirmed in Survey Area E, 1 pair was detected with a nest and 2 pairs were detected with fledglings.
[5]The pair confirmed in Survey Area F was detected with nestlings.

Table 4. Survey results for Least Bell's Vireo protocol presence/absence surveys conducted for TL 6975, San Diego County, California, in 2016.

Survey Date	Survey Type and Number	# Individual Males	# Individual Females	# Unknown	# Pairs	# Total Transients
May 8	LBVI 1					0
May 21	LBVI 2					0
June 1	LBVI 3					0
June 13	LBVI 4	1				1
June 24	LBVI 5					0
July 5	LBVI 6	1				1
July 16	LBVI 7					0
July 30	LBVI 8					0

Other Special-Status Bird Species

In total, 46 bird species were detected. A complete list of bird species detected during the surveys is presented in Appendix C.

Southern California Rufous-Crowned Sparrow (*Aimophila ruficeps canescens)*, a County of San Diego Group 2 species was detected in the study area (Figure 7).

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5.0 Certification

I certify that the information in this survey report and attached exhibits fully and accurately represent my work.

August 31, 2016

Kimberly Ferree (Permit No. TE-122632) Date
Wildlife Biologist
Author and Surveys

Appendix A
USFWS Survey Notification

February 11, 2016

Stacey Love
Recovery Permit Coordinator
Department of Interior
Carlsbad Fish and Wildlife Office
2177 Salk Avenue, Suite 250
Carlsbad, California 92008

Subject:15-Day Pre-Survey Notification of Focused Surveys for California Gnatcatcher (*Polioptila californica californica*) for SDG&E proposed project Transmission Line (TL 6975) Escondido to San Marcos New 69kV TL

Dear Stacey:

The intent of this letter is to inform you that we plan to conduct Coastal California Gnatcatcher (*Polioptila californica californica*) protocol surveys along the proposed project area that contain suitable habitat for SDG&E Transmission Line (TL 6975) Escondido to San Marcos New 69kV TL in Escondido and San Marcos, San Diego County, California (Figure 1). The proposed project includes the reconductoring (with potential replacement of some structures) of an existing de-energized 138 kV transmission line (TL 99911) from Escondido Substation to Meadowlark Junction (Map book Overview Green Line); the construction of a new transmission line parallel to an existing 138 kV transmission line (TL13825) from Meadowlark Junction to and along County Highway S12 (Map book Overview Blue Line); and the intercept and double circuiting of TL 680C at San Marcos Boulevard/County Highway S12 (Map book Overview Orange Line) to San Marcos Substation. (Figure 2). Surveys will be conducted along the transmission line route within a 300-foot corridor.

The surveys have been tentatively scheduled to occur on 2/25, 3/3, 3/10, 3/17, 3/18, and 3/25 2016 and will be conducted according to the survey methodology (U.S. Fish and Wildlife Service 1997). Surveys will be conducted by myself (TE-095896-2.1) and Monica Alfaro (TE-051242). An additional biologist may be present during one or all of the surveys to accrue survey hours. Please do not hesitate to contact me at (858) 444-3926 or kimberly.ferree@icfi.com with any questions.

Sincerely,

Kimberly Ferree

Kimberly Ferree
TE-095896-2.1

Senior Wildlife Biologist

525 B Street, Suite 1700 ▪ San Diego, CA 92101 USA ▪ +1.858.578.8964 ▪ +1.844.545.2301 fax ▪ icfi.com

USFWS. 1997. Coastal California Gnatcatcher Presence/Absence Survey Guidelines. Report from Carlsbad Field Office, 28 July 1997. http://www.fws.gov/pacific/ecoservices/endangered/recovery/documents/CCalGnatcatcher.1997.protocol.pdf

March 23, 2016

Stacey Love
Recovery Permit Coordinator
Department of Interior
Carlsbad Fish and Wildlife Office
2177 Salk Avenue, Suite 250
Carlsbad, California 92008

Subject:15-Day Pre-Survey Notification of Focused Surveys for Least Bell's Vireo (*Vireo bellii pusillus*) and Southwestern Willow Flycatcher (*Empidonax traillii extimus)* for SDG&E proposed project Transmission Line (TL 6975) Escondido to San Marcos New 69kV TL

Dear Stacey:

The intent of this letter is to inform you that we plan to conduct Least Bell's Vireo (*Vireo bellii pusillus*) and Southwestern Willow Flycatcher (*Empidonax traillii extimus)* protocol surveys along the proposed project area that contain suitable habitat for SDG&E Transmission Line (TL 6975) Escondido to San Marcos New 69kV TL in Escondido and San Marcos, San Diego County, California (Figure 1). Surveys are to be conducted in support of operations and maintenance along TL6975 to improve system reliability. Surveys will be conducted along the transmission line route within a 300-foot corridor.

The surveys have been tentatively scheduled to occur from April 15 – July 31, 2016 for Least Bell's Vireos and from May 15 – July 17, 2016 for Southwestern Willow Flycatchers and will be conducted according to the survey methodology (U.S. Fish and Wildlife Service 1997). Surveys will be conducted by myself (TE-095896-2.1) and Monica Alfaro (TE-051242). An additional biologist may be present during one or all of the surveys to accrue survey hours. Please do not hesitate to contact me at (858) 444-3926 or kimberly.ferree@icfi.com with any questions.

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Sogge, M.K., Ahlers, Darrell, and Sferra, S.J., 2010, A natural history summary and survey protocol for the southwestern willow flycatcher: U.S. Geological Survey Techniques and Methods 2A-10, 38 p.

USFWS. 2001. Least Bell's Vireo Survey Guidelines. Report from Carlsbad, California Field Office, dated 19 January 2001. 3 pp.

Appendix B
Species List

Appendix B. Avian Species Detected

Scientific Name	Common Name	Special Status
VERTEBRATES		
Birds		
Callipepla californica	California Quail	
Buteo jamaicensis	Red-tailed Hawk	
Zenaida macroura	Mourning Dove	
Geococcyx californianus	Greater Roadrunner	
Aeronautes saxatalis	White-throated Swift	
Calypte anna	Anna's Hummingbird	
Calypte costae	Costa's Hummingbird	
Selasphorus sasin	Allen's Hummingbird	
Picoides nuttallii	Nuttall's Woodpecker	
Colaptes auratus	Northern Flicker	
Contopus sordidulus	Western Wood-Pewee	
Empidonax difficilis	Pacific-slope Flycatcher	
Sayornis nigricans	Black Phoebe	
Sayornis saya	Say's Phoebe	
Myiarchus cinerascens	Ash-throated Flycatcher	
Tyrannus vociferans	Cassin's Kingbird	
Vireo bellii pusillus	Least Bell's Vireo	FE, SE
Vireo huttoni	Hutton's Vireo	
Vireo gilvus	Warbling Vireo	
Aphelocoma californica	Western Scrub-Jay	
Corvus brachyrhynchos	American Crow	
Corvus corax	Common Raven	
Stelgidopteryx serripennis	Northern Rough-winged Swallow	
Psaltriparus minimus	Bushtit	
Salpinctes obsoletus	Rock Wren	
Catherpes mexicanus	Canyon Wren	
Troglodytes aedon	House Wren	
Thryomanes bewickii	Bewick's Wren	
Polioptila caerulea	Blue-gray Gnatcatcher	
Polioptila californica	California Gnatcatcher	FT, CSC

Scientific Name	Common Name	Special Status
Chamaea fasciata	Wrentit	
Toxostoma redivivum	California Thrasher	
Mimus polyglottos	Northern Mockingbird	
Geothlypis trichas	Common Yellowthroat	
Setophaga coronata	Yellow-rumped Warbler	
Pipilo maculatus	Spotted Towhee	
Aimophila ruficeps canescens	Southern California Rufous-crowned Sparro	
Melozone crissalis	California Towhee	
Melospiza melodia	Song Sparrow	
Zonotrichia leucophrys	White-crowned Sparrow	
Pheucticus melanocephalus	Black-headed Grosbeak	
Passerina caerulea	Blue Grosbeak	
Passerina amoena	Lazuli Bunting	
**Molothrus ater*	Brown-headed Cowbird	
Haemorhous mexicanus	House Finch	
Carduelis psaltria	Lesser Goldfinch	

Legend

*= Non-native or invasive species

Special Status:

Federal:
FE = Endangered
FT = Threatened

State:
SE = Endangered
ST =Threatened
CSC = California Species of Special Concern
CFP = California Fully Protected Species

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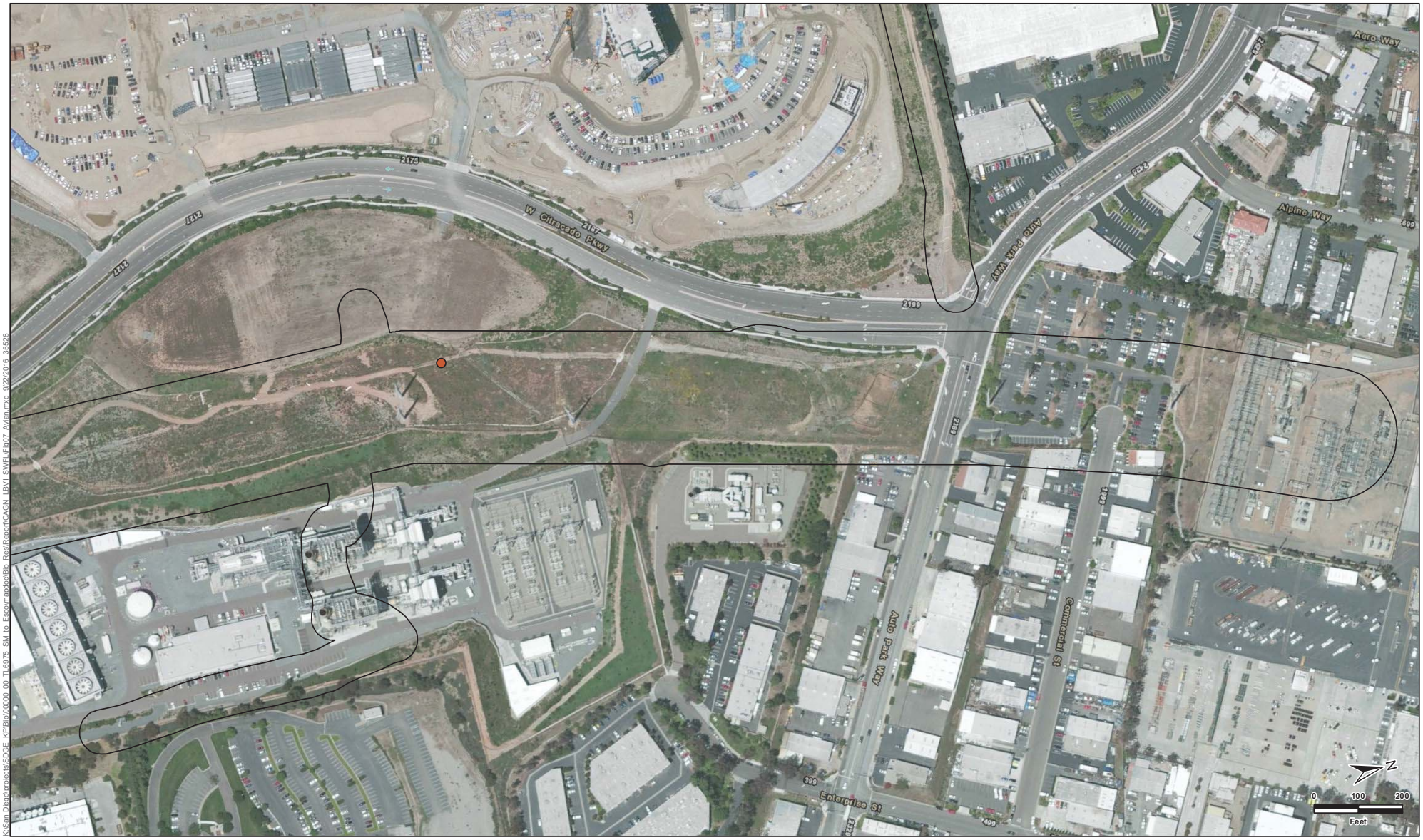
Survey Area

Figure 7 Index
Avian Resources
SDG&E TL6975



Survey Area
American Kestrel (AMKE)
Common Raven (CORA)
Greater Roadrunner (GRRO)
Southern California Rufous-crowned Sparrow (RCSP)
Red-tailed Hawk (RTHA)
Yellow Warbler (YWAR)

Figure 7-1
Avian Resources
SDG&E TL6975

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Survey Area
American Kestrel (AMKE)
Common Raven (CORA)
Greater Roadrunner (GRRO)
Southern California Rufous-crowned Sparrow (RCSP)
Red-tailed Hawk (RTHA)
Yellow Warbler (YWAR)

Figure 7-2
Avian Resources
SDG&E TL6975

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Survey Area
American Kestrel (AMKE)
Common Raven (CORA)
Greater Roadrunner (GRRO)
Southern California Rufous-crowned Sparrow (RCSP)
Red-tailed Hawk (RTHA)
Yellow Warbler (YWAR)

Figure 7-3
Avian Resources
SDG&E TL6975

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Survey Area
American Kestrel (AMKE)
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Southern California Rufous-crowned Sparrow (RCSP)
Red-tailed Hawk (RTHA)
Yellow Warbler (YWAR)

Figure 7-4
Avian Resources
SDG&E TL6975

Figure 7-5
Avian Resources
SDG&E TL6975

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Survey Area
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Common Raven (CORA)
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Red-tailed Hawk (RTHA)
Yellow Warbler (YWAR)

Figure 7-6
Avian Resources
SDG&E TL6975

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Survey Area
American Kestrel (AMKE)
Common Raven (CORA)
Greater Roadrunner (GRRO)
Southern California Rufous-crowned Sparrow (RCSP)
Red-tailed Hawk (RTHA)
Yellow Warbler (YWAR)

Figure 7-7
Avian Resources
SDG&E TL6975

Figure 7-8
Avian Resources
SDG&E TL6975

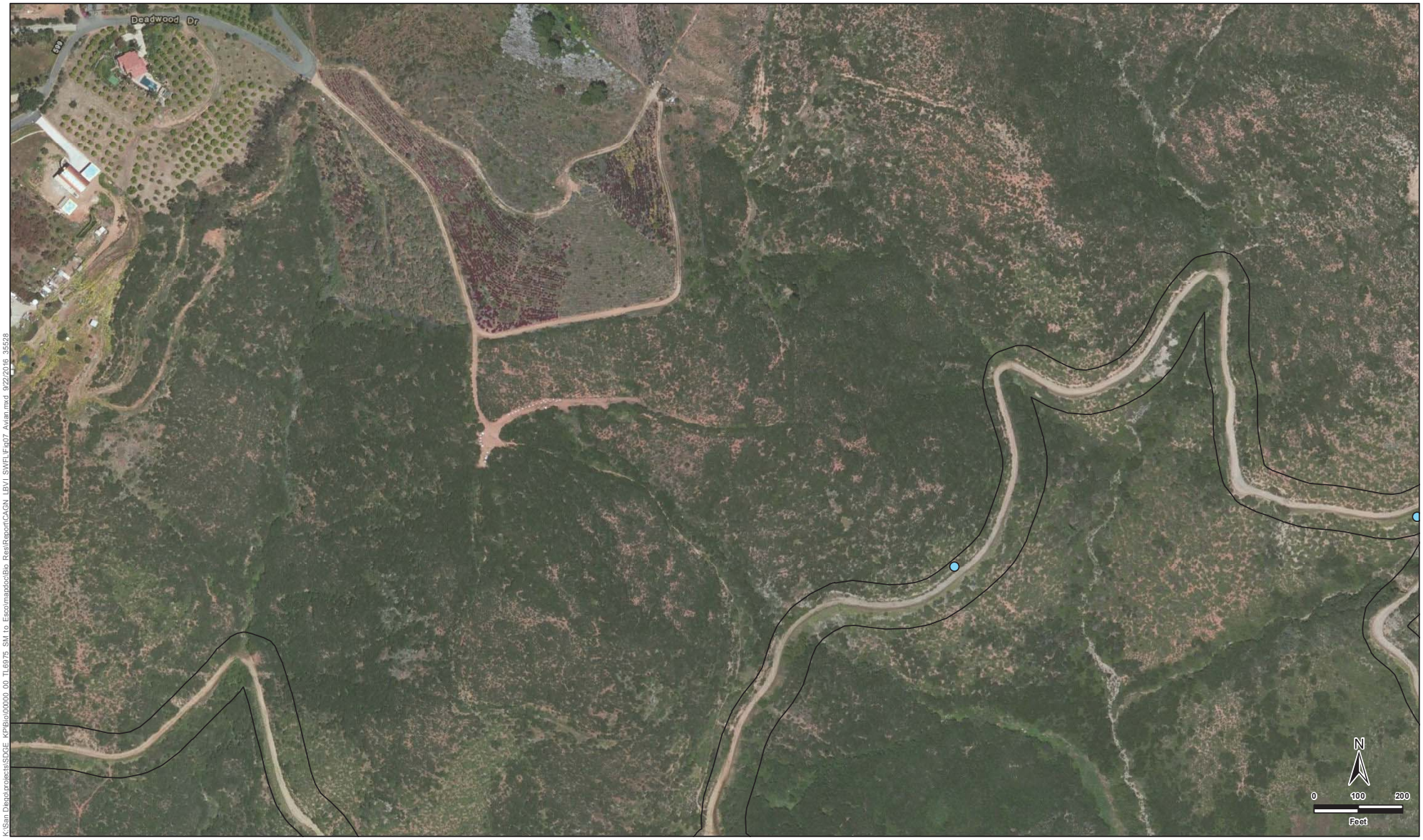

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Figure 7-9
Avian Resources
SDG&E TL6975

Survey Area
American Kestrel (AMKE)
Common Raven (CORA)
Greater Roadrunner (GRRO)
Southern California Rufous-crowned Sparrow (RCSP)
Red-tailed Hawk (RTHA)
Yellow Warbler (YWAR)

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Figure 7-10
Avian Resources
SDG&E TL6975

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Figure 7-11
Avian Resources
SDG&E TL6975

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Survey Area
American Kestrel (AMKE)
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Figure 7-12
Avian Resources
SDG&E TL6975

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Survey Area
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Figure 7-13
Avian Resources
SDG&E TL6975

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Figure 7-14
Avian Resources
SDG&E TL6975

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Avian Resources
SDG&E TL6975

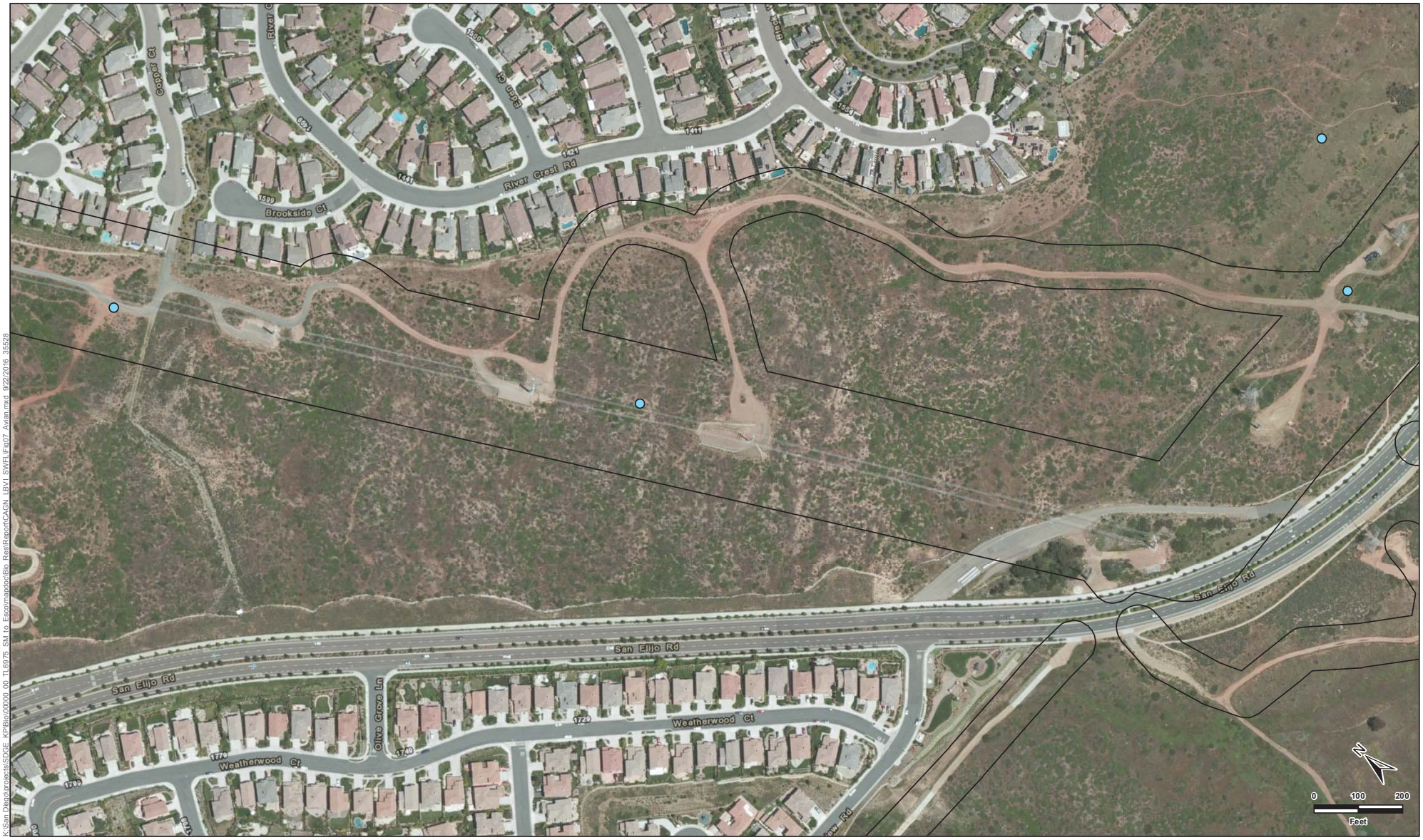

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Figure 7-16
Avian Resources
SDG&E TL6975

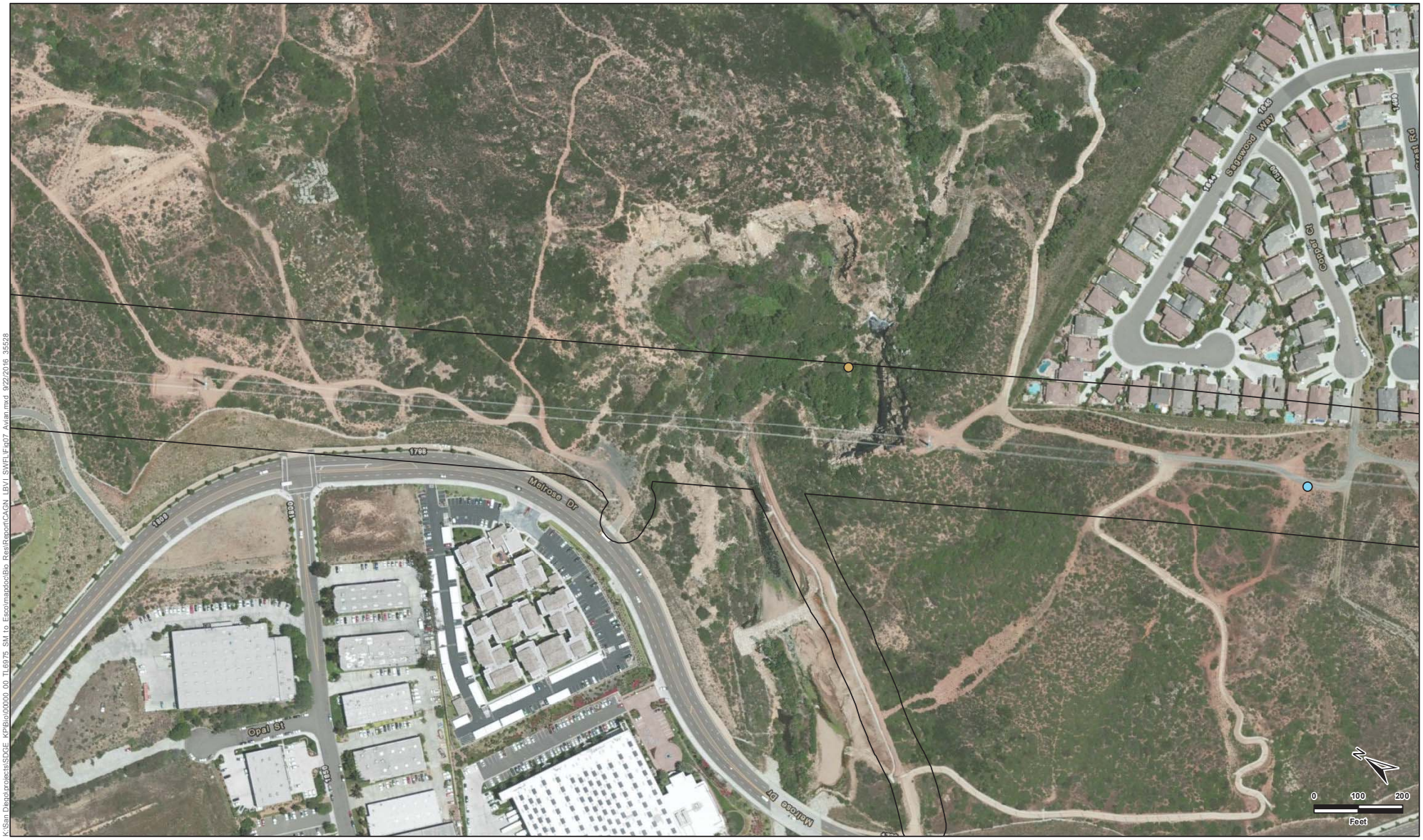

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Figure 7-17
Avian Resources
SDG&E TL6975

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Figure 7-18
Avian Resources
SDG&E TL6975

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Figure 7-19
Avian Resources
SDG&E TL6975

Figure 7-20
Avian Resources
SDG&E TL6975

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Survey Area
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Common Raven (CORA)
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Figure 7-21
Avian Resources
SDG&E TL6975

Survey Area
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Figure 7-22
Avian Resources
SDG&E TL6975

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Survey Area
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Red-tailed Hawk (RTHA)
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Figure 7-23
Avian Resources
SDG&E TL6975

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Survey Area
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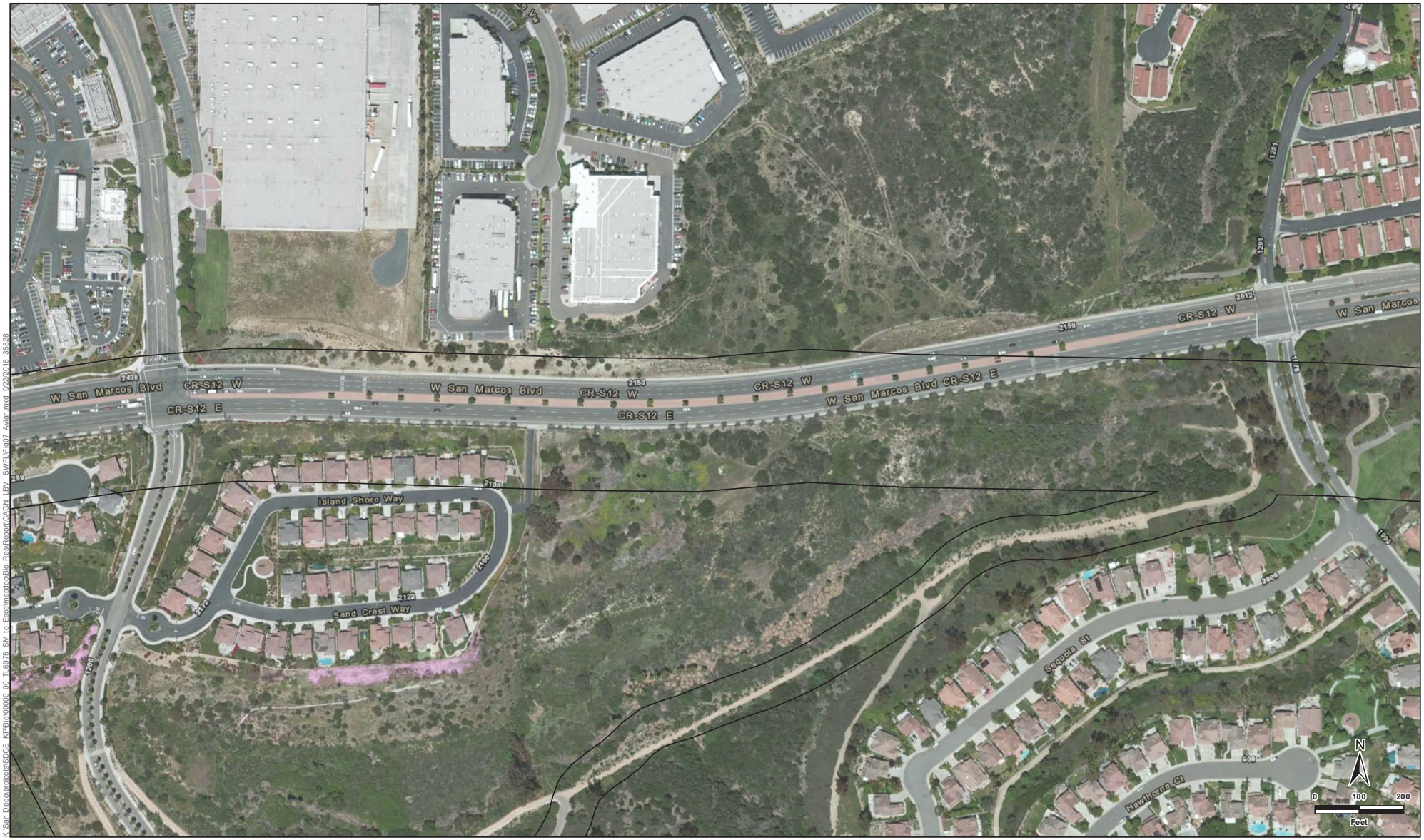
Southern California Rufous-crowned Sparrow (RCSP)
Red-tailed Hawk (RTHA)
Yellow Warbler (YWAR)

Figure 7-24
Avian Resources
SDG&E TL6975



Survey Area
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Figure 7-25
Avian Resources
SDG&E TL6975

Appendix C
Coastal California Gnatcatcher Territory Status and Observations

Appendix C. Coastal California Gnatcatcher Territory Status and Observations for TL 6975, San Diego County, California, in 2016.

Survey Area	Territory ID	Status	Map Number	Date	Comments
C	CAGN01	PAIR WITH FLEDGLINGS	5-7	4/14/2016	Responded to playback immediately. Downslope from road 30 m. Can hear second bird upslope drainage from road 20 m.
C	CAGN01	PAIR WITH FLEDGLINGS	5-7	5/12/2016	Responded to playback. Flew at me and scolded. Then quiet but nearby.
C	CAGN01	PAIR WITH FLEDGLINGS	5-7	6/8/2016	Pair with at least 3 recently fledged flegs. Nest within 1 m.
C	CAGN02	PAIR	5-7	4/14/2016	Can hear 2nd bird calling 100 m upslope, west different than east bird. Need to move both points on map.
C	CAGN02	PAIR	5-7	5/3/2016	Heard calling upslope 50 m.
C	CAGN02	PAIR	5-7	5/12/2016	Observed calling downslope 20 m from road.
C	CAGN03	UNDETERMINED	5-7	4/14/2016	Can hear at least 1 bird calling way upslope 100 m across slope. Same as first detected bird?
C	CAGN03	UNDETERMINED	5-7	5/3/2016	Calling.
C	CAGN04	PAIR	5-8	3/30/2016	Observed male calling; heard about 5 min after playback. Can hear second bird calling. *Sambucus mexicana* dominated, laurel sumac, *Artemisia californica,* agave. 3rd bird present?
C	CAGN04	PAIR	5-8	4/13/2016	Downslope 100 m calling.
C	CAGN04	PAIR	5-8	5/12/2016	Can hear scolding downslope 25 m; flew up to tower.
C	CAGN05	PAIR	5-7, 5-8	4/13/2016	Heard first. Pair together near road and down slope.
C	CAGN05	PAIR	5-7, 5-8	5/3/2016	Calling downslope 30 m.
C	CAGN06	PAIR	5-8	3/30/2016	Male responded to playback. Female also observed. Downslope. Lemonade berry, black sage, *Eriogonum fasiculatum*, dense.
C	CAGN07	UNDETERMINED	5-10	4/13/2016	Male scolding.
C	CAGN08	PAIR WITH NEST	5-10, 5-11	3/22/2016	Observed male go into black sage several times, likely building. Female nearby calling back. Upslope from road, and west of gate.
C	CAGN08	PAIR WITH NEST	5-10, 5-11	3/30/2016	Heard calling 30 m from detection last visit.
C	CAGN08	PAIR WITH NEST	5-10, 5-11	5/3/2016	Male responded to playback, female called several minutes later. Best likely upslope.
C	CAGN08	PAIR WITH NEST	5-10, 5-11	5/12/2016	Heard calling upslope from road.
C	CAGN08	PAIR WITH NEST	5-10, 5-11	6/8/2016	Responded to playback. Perched closeby calling.
D	CAGN09	PAIR	5-11, 5-12	4/1/2016	Heard when got out of car at gate. One near gate and one calling to west.
D	CAGN10	PAIR WITH NEST	5-12	5/10/2016	Nest.
D	CAGN10	PAIR WITH NEST	5-12	5/10/2016	Responded to playback. Called several times.

Appendix C. Coastal California Gnatcatcher Territory Status and Observations for TL 6975, San Diego County, California, in 2016.

Survey Area	Territory ID	Status	Map Number	Date	Comments
D	CAGN11	UNDETERMINED	5-12	4/1/2016	Heard calling in response to playback, south of first bird.
D	CAGN11	UNDETERMINED	5-12		Heard calling from opposite hill approximately 75 m away, move point.
D	CAGN12	UNDETERMINED	5-12, 5-13	3/22/2016	Heard calling 20 m between trails at junction.
D	CAGN13	UNDETERMINED	5-13	3/22/2016	Heard calling downslope 50 m.
D	CAGN13	UNDETERMINED	5-13	4/25/2016	Heard scolding, Western Scrub-Jay nearby.
D	CAGN14	PAIR	5-13	4/1/2016	Responded to playback after one call, popped up, then silent, circled around us, crossed access road then back to first spot, agitated call. No female
D	CAGN14	PAIR	5-13	4/12/2016	Pair.
D	CAGN14	PAIR	5-13	4/25/2016	Responded to playback. Silent flew in from north side of trail.
D	CAGN14	PAIR	5-13	5/10/2016	Responded to playback, silent. Then flew downslope west 75 m in gully. Called a few times.
D	CAGN15	PAIR	5-14	5/10/2016	Responded to playback. Observed pair flying downslope 75 m.
D	CAGN16	PAIR	5-14	4/1/2016	Calling near trail.
D	CAGN16	PAIR	5-14	5/10/2016	Foraging silent. Returned from long flight.
E	CAGN17	UNDETERMINED	5-15	4/1/2016	Observed silent female foraging along trail. No male detected.
E	CAGN18	PAIR WITH FLEDGLINGS	5-16	4/27/2016	Responded to playback.
E	CAGN18	PAIR WITH FLEDGLINGS	5-16	5/9/2016	Pair feeding at least 3 flegs along road.
E	CAGN18	PAIR WITH FLEDGLINGS	5-16	5/9/2016	Female brooding 4 2-3 day old nestlings. Male closeby feeding. Nest in Black sage, 0.75 m. Look for flag. 278 degrees, 12 m.
E	CAGN18	PAIR WITH FLEDGLINGS	5-16	6/7/2016	Observed silent female.
E	CAGN19	PAIR WITH FLEDGLINGS	5-15, 5-16	5/9/2016	Responded to playback, quiet.
E	CAGN19	PAIR WITH FLEDGLINGS	5-15, 5-16	6/7/2016	Pair with at least 2 flegs. Flegs flying well, begging heard.
E	CAGN20	PAIR	5-16	5/9/2016	Responded to playback, quiet. Foraging then gone. Nest near here?
E	CAGN20	PAIR	5-16	6/7/2016	Responded to playback. Fresh plumage. Foraging nearby.
E	CAGN21	PAIR WITH NEST	5-16	3/17/2016	Pair foraging together, male observed calling occasionally. Full cap.

Appendix C. Coastal California Gnatcatcher Territory Status and Observations for TL 6975, San Diego County, California, in 2016.

Survey Area	Territory ID	Status	Map Number	Date	Comments
E	CAGN21	PAIR WITH NEST	5-16	4/1/2016	Observed male with nesting mat, went into *Sambucus mexicana* to nest, dropped mat here, along trail. No female detected.
E	CAGN21	PAIR WITH NEST	5-16	6/7/2016	Responded to playback. Foraging, called occasionally.
E	CAGN22	UNDETERMINED	5-16	4/13/2016	Unknown.
E	CAGN22	UNDETERMINED	5-16	4/27/2016	Responded to playback then back downslope.
E	CAGN22	UNDETERMINED	5-16	5/9/2016	
E	CAGN23	PAIR	5-16	4/27/2016	Responded to playback, saw male, heard female.
E	CAGN23	PAIR	5-16	6/7/2016	Observed calling above coyote.
E	CAGN24	PAIR	5-16	6/7/2016	Male responded to playback. Flew to female.
E	CAGN25	PAIR	5-17	5/9/2016	Responded to playback, silent. 5 min later, observed with female. Together foraging. No flegs detected. Could be building.
E	CAGN26	UNDETERMINED	5-17	4/13/2016	
D	CAGN27	PAIR	5-16	3/17/2016	Along trail. Calling to one another moving around.
E	CAGN28	PAIR	5-17	6/7/2016	Responded to playback. First time detected. 2nd bird calling upslope.
E	CAGN29	UNDETERMINED	5-17, 5-18	4/16/2016	Responded to playback, calling for 2 min, flew around me. Then flew north of trail.
E	CAGN29	UNDETERMINED	5-17, 5-18	5/9/2016	Heard calling from transmission lines to south. Heard 2nd time from trail to east.
E	CAGN30	UNDETERMINED	5-18	6/7/2016	Responded to playback in bowl.
E	CAGN30	UNDETERMINED	5-18		Heard calling in bowl on northwest slope. Blue-Gray Gnatcatcher nearby.
F	CAGN31	PAIR WITH NESTLINGS	5-20	3/29/2016	Responded to tape, silent.
F	CAGN31	PAIR WITH NESTLINGS	5-20	5/10/2016	Observed male feeding 4 nestlings hatched today. Female also feeding. Nest 1.5 ft up in *Artemisia californica*. Off trail 10 m.
F	CAGN33	UNDETERMINED	5-21	3/29/2016	Heard calling. Did not respond to tape.
C	CAGN34	PAIR	5-9	3/30/2016	Male responded to tape. Upslope. Flew across canyon. Calling occasionally.
C	CAGN34	PAIR	5-9	4/13/2016	Responded to playback. Female observed foraging upslope of road.
C	CAGN34	PAIR	5-9	5/3/2016	Heard calling.
C	CAGN34	PAIR	5-9	6/8/2016	Heard call once in response to playback. Then silent.

Appendix D
SWFL Survey Form

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: **SDG&E TL6975** State: **California** County: **San Diego**

USGS Quad Name: **San Marcos** Elevation: **150** (meters)

Creek, River, or Lake Name: **San Marcos Creek**

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? ***Yes*** **X** ***No*** ____

Survey Coordinates: Start: E **33.10292** N **-117.21255** UTM Datum: ____ (See instructions)

Stop: E **33.10384** N **-117.21337** UTM Zone: ____

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

*****Fill in additional site information on back of this page*****

Survey # Observer(s) (Full Name)	Date (m/d/y) Survey Time	Number of Adult WIFLs	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N If Yes, number of nests	Comments (e.g., bird behavior; evidence of pairs or breeding; potential threats [livestock, cowbirds, *Diorhabda* spp.]). If *Diorhabda* found, contact USFWS and State WIFL coordinator.	GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary.			
Survey # 1	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	5/21/2016									
Kimberly Ferree	Start: 10:05									
	Stop: 11:00	0	0	0	N					
	Total hrs: 1.0									
Survey # 2	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	6/1/2016									
Kimberly Ferree	Start: 7:30									
	Stop: 8:15	0	0	0	N					
	Total hrs: 0.8									
Survey # 3	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	6/13/2016									
Kimberly Ferree	Start: 6:15									
	Stop: 7:15	0	0	0	N					
	Total hrs: 1.0									
Survey # 4	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	6/24/2016									
Kimberly Ferree	Start: 10:40									
	Stop: 11:30	0	0	0	N					
	Total hrs: 1.0									
Survey # 5	Date:						# Birds	Sex	UTM E	UTM N
Observer(s):	7/5/2016									
Kimberly Ferree	Start: 5:55									
	Stop: 6:55	0	0	0	N					
	Total hrs: 1.0									
Overall Site Summary Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals. Total survey hrs: 4.8		Total Adult Residents	Total Pairs	Total Territories	Total Nests	Were any WIFLs color-banded? Yes ____ No **x** If yes, report color combination(s) in the comments section on back of form and report to USFWS.				
		0	0	0	0					

Reporting Individual: **Kimberly Ferree** Date Report Completed: **8/31/2016**

US Fish & Wildlife Service Permit #: **TE-122632** State Wildlife Agency Permit #: **SC-8808**

Submit ***form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.***

Fill in the following information completely. Submit form by September 1 st. Retain a copy for your records.

Reporting Individual **Kimberly Ferree** Phone # **7605791454**

Affiliation **ICF International** E-mail kimberly.ferree@gmail.com, ki

Site Name **SDG&E TL6975** Date report Completed **8/31/2016**

Was this site surveyed in a previous year? Yes____ No____ Unknown __X__

Did you verify that this site name is consistent with that used in previous yrs? Yes ____ No **X** Not Applicable ____

If name is different, what name(s) was used in the past? ____

If site was surveyed last year, did you survey the same general area this year? Yes ____ No ____ If no, summarize below.

Did you survey the same general area during each visit to this site this year? Yes **X** No ____ If no, summarize below.

Management Authority for Survey Area: Federal ____ Municipal/County **X** State **CA** Tribal ____ Private ____

Name of Management Entity or Owner (e.g., Tonto National Forest) **City of San Marcos**

Length of area surveyed: **1.0** (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

x Native broadleaf plants (entirely or almost entirely, > 90% native)

____ Mixed native and exotic plants (mostly native, 50 - 90% native)

____ Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)

____ Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.

Salix lasiolepis,Salix Gooddingii, Populus spp., Bacharis salisifolia

Average height of canopy (Do not include a range): **8** (meters)

Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;
2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;
3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features. Attach additional sheets if necessary.

Territory Summary Table. Provide the following information for each verified territory at your site.

Territory Number	All Dates Detected	UTM E	UTM N	Pair Confirmed? Y or N	Nest Found? Y or N	Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior)

Attach additional sheets if necessary

Appendix C

Jurisdictional Delineation Report for the SDG&E TL 6975 Escondido to San Marcos New 69 kV Project

TL 6975 Escondido To San Marcos New 69 kV Project, San Diego County, California

JURISDICTIONAL DELINEATION REPORT

Prepared for:

San Diego Gas & Electric
8315 Century Park Court
San Diego, CA 92123

Prepared by:

ICF
525 B Street, Suite 1700
San Diego, California 92101

August 2017

SDG&E. 2017. Jurisdictional Delineation Report for the SDG&E TL 6975 Escondido to San Marcos New 69 kV Project. August 2017.

Table of Contents

1. INTRODUCTION 1-1
1.1 Project Description 1-1
1.2 Project Location 1-1
2. METHODOLOGY 2-1
2.1 Project Research 2-1
2.2 Field Investigation 2-1
2.2.1 USACE Jurisdiction 2-2
2.2.2 RWQCB/SWRCB Jurisdiction 2-2
2.2.3 CDFW Jurisdiction 2-3
3. ENVIRONMENTAL SETTING 3-1
3.1 Topography & Land Use 3-1
3.1.1 Precipitation 3-1
3.2 Watershed 3-1
3.2.1 Carlsbad 3-1
3.3 Soils 3-2
3.3.1 Soil Series 3-2
4. JURISDICTIONAL DELINEATION RESULTS 4-1
4.1 Delineation Results 4-1
4.1.1 Potentially Jurisdictional Resources 4-1
4.1.2 Non-Jurisdictional Resources 4-2
4.2 Conclusion 4-3
4.2.1 Construction Constraints 4-3
5. REFERENCES 5-1

Appendices

Appendix A Figures
Appendix B Site Photographs, March 2017
Appendix C Wetland Determination Forms
Appendix D Summary Jurisdictional Delineation Table
Appendix E Summary Constraints Table

Tables

Table Page
Table 1: Survey Personnel and Dates 2-1
Table 2: Rainfall Data Summary for the Project Survey Area (in inches) 3-1
Table 3: Existing Jurisdictional Delineation Features Summary 4-3

Figures- Appendix A

Figures

1 – Regional Vicinity Map

2 – Project Vicinity

3 – FEMA 100-Year Floodplain Map

4 – Watershed Map

5 – Soils Maps

6 – Potential Jurisdictional Waters

Acronyms and Abbreviations

AMSL	above mean sea level
BMPs	best management practices
CDFW	California Department of Fish and Game
CWA	Clean Water Act
DDE	dichlorodiphenyldichloroethylene
FAC	facultative
FACW	facultative wetland
FEMA	Federal Emergency Management Agency
GPS	global positioning systems
HA	hydrologic area
HAS	hydrologic subarea
kV	kilovolt
NHD	National Hydrography Dataset
NI	no indicator
NO	no occurrence
NRCS	Natural Resources Conservation Service
NWI	National Wetland Inventory
OBL	obligate
OHWM	Ordinary High Water Mark
Porter- Cologne Act	Porter-Cologne Water Quality Control Act
Project Area	TL 6975 Escondido to San Marcos New 69 kV Project
PSA	project survey area
RWQCB	Regional Water Quality Control Board
SDG&E	San Diego Gas and Electric
SSURGO	Soil Survey Geographic
SWRCB	State Water Resources Control Board
USACE.	U.S. Army Corps of Engineers
USGS	U.S. Geological Survey

1. INTRODUCTION

This report discusses regulatory methods and provides the results of a formal delineation completed for the San Diego Gas and Electric (SDG&E) TL 6975 Escondido to San Marcos New 69 kilovolt (kV) Project (Proposed Project) in 2017. The report identifies the extent of federal and state jurisdiction within the project survey area (PSA) pursuant to Sections 401 and 404 of the Clean Water Act (CWA) as well as Section 13260 of the Porter-Cologne Water Quality Control Act (Porter-Cologne Act) and Section 1602 of the California Fish and Game Code.

Section 404 of the CWA covers waters of the United States as well as federal wetlands and is regulated by the U.S. Army Corps of Engineers (USACE). Under Section 401 of the CWA, the Regional Water Quality Control Board (RWQCB) regulates at the state level all activities that are regulated at the federal level by the USACE. The RWQCB or State Water Resources Control Board (SWRCB) may also regulate activities affecting non-federal waters and wetlands (e.g., isolated features) under the Porter-Cologne Act. Section 1602 of the California Fish and Game Code is regulated by the California Department of Fish and Wildlife (CDFW) and covers aquatic features, which include lakes or streambeds with a defined bed and bank plus any adjacent riparian vegetation.

The information and results presented herein document the investigation, best professional judgment, and conclusions of ICF. It is correct and complete to the best of its author's knowledge. However, all jurisdictional delineations should be considered preliminary until reviewed and approved/determined by the regulatory agencies.

1.1 PROJECT DESCRIPTION

The entire SDG&E TL 6975 Escondido to San Marcos New 69 kV Proposed Project was assessed for potential jurisdictional water.

1.2 PROJECT LOCATION

The Proposed Project is located in the cities of Escondido and San Marcos, San Diego County, California (Figure 1; Regional Vicinity Map, all figures are included as Appendix A: Figures). The Proposed Project survey area occurs within the U.S. Geological Survey (USGS) San Marcos, Rancho Santa Fe, and Escondido 7.5-minute topographical quadrangle maps (amended 2012). The center coordinates for the Proposed Project in decimal degree format (NAD 83) are 33.094°N and -117.1871°W. A project survey area (PSA) was established for the Proposed Project which consisted of a 300-foot survey corridor of the transmission centerline and 40-foot survey corridor of the access roads.

2. METHODOLOGY

2.1 PROJECT RESEARCH

Prior to the field visit, a 100-foot-scale (1 inch = 100 feet) aerial photograph of the site was obtained and compared with the USGS 7.5-minute topographic San Marcos, Rancho Santa Fe, and Escondido (USGS 2012) quadrangle maps and aerial imagery to observe vegetation types, topographic changes, and visible drainage patterns associated with the PSA. In addition, the National Wetland Inventory (NWI) (USFWS 2012) was reviewed to identify mapped wetlands that occur within the PSA. Maps depicting the PSA in relation to the Federal Emergency Management Agency (FEMA) 100-year flood zone, national hydrography dataset (NHD) drainages and watersheds are provided in Figures 3 (FEMA 100-Year Floodplain Map) and 4 (Watershed Map) respectively.

2.2 FIELD INVESTIGATION

An informal jurisdictional delineation was completed in the PSA by ICF biologists Lanika Cervantes, Amanda Parra, and Marissa Maggio in 2015. Prior to conducting the 2017 formal delineation, for this current effort, the results of the previous delineations were re-verified; formal wetland data forms were completed; new potential staging yards were assessed. Table 1, Survey Personnel and Dates, below provides the dates of the 2017 surveys.

Table 1: Survey Personnel and Dates

Date	Personnel
02/17/2017	Brett Bowen and Lance Woolley
03/16/2017	Brett Bowen and Lance Woolley
04/13/2017	Brett Bowen
04/24/2017	Brett Bowen and Lanika Cervantes

The PSA consisted of the entire SDG&E TL 6975 Escondido to San Marcos project area. Features within the 300-foot survey corridor of the transmission centerline and 40-foot survey corridor of the access roads were revaluated for potential state and federal jurisdiction. In 2015, the following information was recorded for each feature: feature type (e.g., ephemeral stream, swale, erosional feature, wetland, etc.), jurisdictional status, jurisdictional extent, ordinary high water mark (OHWM) indicators observed, and proximity to proposed project infrastructure. This information is provided in Table 1, Aquatic Features Evaluated within the PSA, in Appendix D: Summary Jurisdictional Delineation Table, and Table 2 Appendix E: Summary Constraints Table. The survey was conducted on foot, and jurisdictional limits were recorded using high-resolution aerial photographs (1 inch=100 feet) and sub-meter accuracy Trimble global positioning systems (GPS) unit. Existing conditions were documented as field notes and site photographs (Photographs included as Appendix B: Site Photographs, March 2017).

2.2.1 USACE Jurisdiction

Potential waters of the U.S. and wetlands were delineated using methods established in the Wetland Delineation Manual (Environmental Laboratory 1987), the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE 2008a), and A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (USACE 2008b). Non-wetland waters were delineated based on the presence of OHWM indicators. The following three criteria must be fulfilled in order to classify an area as a wetland water: (1) a predominance of hydrophytic vegetation, (2) the presence of hydric soils, and (3) the presence of wetland hydrology. Details of the application of these techniques are described below.

- **Hydrophytic Vegetation:** The hydrophytic vegetation criterion is satisfied at a location if greater than 50 percent of all the dominant species present within the vegetation unit have a wetland indicator status of obligate (OBL), facultative wetland (FACW), or facultative (FAC) (Environmental Laboratory 1987). An OBL indicator status refers to plants that almost always occur in wetlands under natural conditions. A FACW indicator status refers to plants that usually occur in wetlands but are occasionally found elsewhere. A FAC indicator status refers to plants that are equally likely to occur in wetlands or elsewhere. An NI (no indicator) status designates that insufficient information was available to determine an indicator status. An NO (no occurrence) status indicates that the species does not occur in the region; when a plant with an NO status is found within a region, it usually indicates that the plant is ornamental. The wetland indicator status used for this report follows the *National Wetland Plant List* (Lichvar et al. 2016).

- **Hydric Soils:** The definition of a hydric soil is a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (USDA/NRCS 1994). This determination is made based on various field indicators detailed in the *Arid West Supplement* and the *Field Indicators of Hydric Soils in the United States (Version 8.0)* (USDA/NRCS 2016).

- **Wetland Hydrology:** Wetland hydrology is determined using indicators of inundation or saturation (flooding, ponding, or tidally influenced) detailed in the *Wetland Delineation Manual* (Environmental Laboratory 1987) and the *Arid West Supplement* (USACE 2008a).

Within the PSA, soil pits were dug to examine soil color and texture and determine the wetland boundary. Wetland Determination Forms are included as Appendix C: Wetland Determination Forms. A paired-pit technique was used (one sample point with wetland results paired with one sample point with non-wetland results, used to identify a wetland boundary).

2.2.2 RWQCB/SWRCB Jurisdiction

Evaluation of state jurisdiction followed guidance from Section 401 of the CWA and typically follows the same jurisdictional areas as USACE. In addition, the PSA was reviewed for resources potentially regulated under Porter-Cologne Act (i.e., isolated features). Isolated vernal

pools, isolated wetlands, or other aquatic features not normally subject to federal regulation did not occur within the PSA: no further evaluation was necessary.

2.2.3 CDFW Jurisdiction

CDFW jurisdiction typically includes water features with a defined bed and bank. Evaluation of potentially jurisdictional areas followed the guidance of standard practices by CDFW personnel. Briefly, CDFW jurisdiction was delineated by measuring outer width and length boundaries of potentially jurisdictional areas (lakes or streambeds), consisting of the greater of either the top of bank measurement or the extent of associated riparian or wetland vegetation.

3. ENVIRONMENTAL SETTING

The following section describes the topography and land use, hydrology, and soils associated with the PSA.

3.1 TOPOGRAPHY & LAND USE

The PSA is in the coastal hills of San Diego County's northern valley. It traverses through developed, residential, and naturally vegetated areas through steep slopes, canyons and drainages. Surrounding land uses consist of residential, commercial, recreational, and undeveloped. TL 6975 ranges in elevation from approximately 370 feet above mean sea level (AMSL) to the west at feature 004 approximately 1,200 feet AMSL to the east adjacent to feature 085.

3.1.1 Precipitation

Based on the San Miguel weather station located 0.5 mile northeast of the PSA, total estimated precipitation within the last year was approximately 16.93 inches (Table 2, Rainfall Data Summary for the Project Survey Area [in inches]).

Table 2: Rainfall Data Summary for the Project Survey Area (in inches)

	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
Total	0.23	0	0	0	.8	0.03	1.33	4.43	6.61	5.72	0.19	0
*Data source: Western Regional Climate Control Center, http://www.raws.dri.edu ; Accessed April 2017. Located approximately 8 miles northwest from the center of the PSA.												

3.2 WATERSHED

The project area is located within the USGS San Marcos Creek and Escondido Creek hydrologic unit code (HUC 10: 1807030305 and 1807030304) (Figure 4, Watershed Map). The project area is also within the Carlsbad HU, San Marcos and Escondido Creek hydrologic area (HA 904.50 and 904.60); and San Elijo and Escondido hydrologic subarea (HSA 904.61 and 904.62).

General information on this major watershed is provided below.

3.2.1 Carlsbad

The Carlsbad HU encompasses 210 square miles, and is drained by Buena Vista, Agua Hedionda, San Marcos, and Escondido Creeks and their tributaries, which eventually drain into the Pacific Ocean. The dominant land uses in the Carlsbad watershed are urban, open space, agriculture, undeveloped, and wildlife sanctuaries.

Two-thirds of the land area categorized as urban is composed of residential communities, occupied by approximately 250,000 people. The most important watershed issues for Carlsbad

HU are related to the protection of municipal water supplies and the protection and restoration of sensitive wetland and wildlife habitats (Project Clean Water 2017).

Of the delineated features within the PSA, none is considered to be a 303(d) listed waterbody; however, receiving waters upstream, including the San Luis Rey-Escondido watershed (Dichlorodiphenyldichloroethylene [DDE], Phosphorus, Sediment Toxicity, Selenium, Ammonia, and Nutrients), are listed.

3.3 SOILS

3.3.1 Soil Series

The Natural Resources Conservation Service (NRCS) has mapped the soil series: Altamont, Cieneba, Escondido, Exchequer, Fallbrook, Friant, Gaviota, Grangeville, Gravel Pits, Huerhuero, Las Flores, Las Posas, Placentia, Ramona, Redding, Riverwash, San Miguel, Tujunga, Visalia, Vista, and Wyman, as occurring within the delineated jurisdictional waters based on the Soil Survey Geographic (SSURGO) database (USDA/NRCS 2006) (Figure 5, Soils Map). No soils within the PSA are identified as hydric soils for San Diego County (USDA/NRCS 2011).

A description of this soil series included within the SSURGO mapping units is provided below based on the official soil descriptions provided by USDA (USDA/NRCS 2012):

3.3.1.1 Altamont

The Altamont soil series consists of well-drained, deep clays derived from fine-grained sandstone and shale. Altamont soils are extensive in central and southern Coast Ranges of California and the Sutter Buttes. The soils occur on uplands, hills, and mountains at elevations of 100 to 4,480 feet, with slopes of 0 to 75 percent. The typical soil texture is that of clay, clay loam, or silty clay, with medium to very high runoff after the soil cracks swell shut, and slow permeability.

3.3.1.2 Cieneba

The Cieneba soil series consists of somewhat excessively drained soils, from very shallow to shallow loams derived from weathered granite rock. Cieneba soils are extensive throughout the Coastal mountain ranges from central and southern California and the foothills of the Sierra Nevada and occur on hills and mountains at elevations of 150 to 1,220 feet, with slopes of 9 to 85 percent. The typical soil texture is that of loam with low to high runoff and moderately rapid permeability in the soil and much slower in the weathered bedrock.

3.3.1.3 Escondido

The Escondido series consists of well-drained, moderately deep, very fine sandy loams. Escondido soils are extensive, mainly occurring in southern California in San Diego and Western Riverside Counties and occur on gently rolling to hilly topography in foothills at elevations of

400 to 2,800 feet. The typical soil texture is that of very fine sandy loams with medium runoff and moderate permeability.

3.3.1.4 Exchequer

The Exchequer soil series consists of excessively drained soils, shallow rocky silt loams that are derived from weathered hard andesitic breccia, schist, and metamorphosed volcanic rocks. Exchequer soils occur on undulating to steep uplands at elevations of 400 to 2,000 feet. The typical soil texture is that of rocky silt loams with medium to rapid runoff and moderate permeability. Exchequer soils are extensive and occur in the lower foothills of the western Sierra Nevada of central and north-central California and coastal hills of southern California.

3.3.1.5 Fallbrook

The Fallbrook soil series consists of well-drained soils, deep sandy loam soils that are derived from weathered granite rocks. Fallbrook soils are extensive and occur on the foothills on the east side of the San Joaquin valley and foothills in the west part of southern California. The typical soil texture is that of sandy loam with medium to very rapid runoff and moderate slow permeability. Fallbrook soils occur on gently rolling to very steep round hills at elevations 200 to 3,000 feet or as high as 3,500 feet on south-facing slopes, and have slopes of 5 to 75 percent.

3.3.1.6 Friant

The Friant soil series consists of well-drained soils: shallow, rocky, fine, sandy loam that is derived from weathered mica schist, quartz schist, and gneiss. Friant soils are moderately extensive and occur on the foothills along the east side of the San Joaquin Valley and the southwestern part of California. The typical soil texture is that of loam, sandy loam, or fine sandy loam with medium to very rapid runoff and moderately rapid permeability. Friant soils occur on hilly and mountainous uplands at elevations of 500 to 3,500 feet and have slopes of 9 to 75 percent.

3.3.1.7 Gaviota

The Gaviota soil series consists of well- and excessively drained soils, very shallow or shallow loam that is derived from weathered hard sandstone or meta-sandstone. Gaviota soils are extensive and occur mostly in the California Coast Ranges. The soil texture throughout ranges from fine sandy loam to gravelly fine sandy loam with very low to very high runoff and moderately rapid permeability. Gaviota soils occur on hills and mountains at elevations of 200 to 4,400 feet and have slopes of 2 to 100 percent.

3.3.1.8 Grangeville

The Grangeville soil series consists of somewhat poorly drained soils, very deep loam that is derived from moderate coarse textured alluvium, dominantly from granite rock sources. Grangville soils occur on the east side of the San Joaquin Valley and intermountain valleys in the western part of southern California. The typical soil texture is that of fine sandy loam with

negligible to very low runoff and rapid permeability with moderate permeability in saline-sodic phases. Grangeville soils occur on alluvial fans and floodplains at elevation of 0 to 1800 feet and have slopes ranging from 0 to 2 percent.

3.3.1.9 Gravel Pits

There are no specific descriptions for this soil mapping unit provided by NRCS Soil Survey. The gravel pit soil series occurs in a quarried area along San Marcos Creek adjacent to feature 49.

3.3.1.10 Huerhuero

The Huerhuero soil series consists of moderately well- to somewhat poorly drained loam. Huerhuero soils are moderately extensive and occur along the central and southern Coast Range valleys in California. The soil texture is that of loam and clay loam with slow to medium runoff and very slow permeability. Huerhuero soils occur on nearly level to strongly sloping alluvial fans and terraces at elevations of less than 1,100 feet and have slopes that are typically less than 3 percent.

3.3.1.11 Las Flores

The Las Flores soil series consists of moderately well-drained loamy sand. Las Flores soils are moderately extensive and occur in the coastal plains of southern California. The typical soil texture is that of loamy sand with medium to rapid runoff and very slow permeability. Las Flores soils occur on gently to strongly sloping areas and on marine terraces at elevations of less than 700 feet having slopes.

3.3.1.12 Las Posas

The Las Posas soil series consists of well-drained, moderately deep, fine loam derived from basic ingenious rock. Las Posas soils are moderately extensive and occur on the foothills of southern California and the Sierra Nevada. The typical soil texture is that of fine sandy loam with medium to rapid runoff and slow permeability. Las Posas soils occur on mountainous uplands with elevations from 200 to 3,000 feet having slopes of 5 to 50 percent.

3.3.1.13 Placentia

The Placentia soil series consists of well or moderately well-drained sandy loam. Placentia soils are extensive and occur mostly in Salinas Valley and coastal parts of southern California. The typical soil texture is that of sandy loam with slow to rapid runoff and very slow permeability. Placentia soils occur at nearly level to moderately sloping areas and are on fans and terraces at elevations of 50 to 2,500 feet.

3.3.1.14 Ramona

The Ramona soil series consists of well-drained fine sandy loam. Ramona soils are extensive and occur in the interior valleys of central and the western part of California. The typical soil texture is that of fine sandy loam with slow to rapid runoff and moderately slow permeability.

Ramona soils occur at nearly level to moderately steep areas and are on terraces and fans at elevations of 250 to 3,500 feet.

3.3.1.15 Redding

The Redding soil series consists of well- or moderately well- drained, moderately deep to duripan gravelly loam derived from alluvium from mixed sources. Redding soils are extensive and occur in high terraces along the northern and eastern edge of the Central Valley in California. The typical soil texture is that of gravelly loam with very low to high runoff, except with the local ponding in intermound areas, and very slow to slow permeability. Redding soils occur at nearly level or dissected and undulating to hilly high terraces with elevations of 40 to 2,000 feet with slopes of 0 to 30 percent. Vernal pools with relief that is greater than the intermound are common in areas that have slopes of 0 to 3 percent.

3.3.1.16 Riverwash

The Riverwash soil series consists of an excessively drained soil. The typical soil texture is that of sandy, gravelly, or cobbly soil with rapid permeability. Riverwash soils occur in intermittent streams and have barren areas with riparian habitats along the banks.

3.3.1.17 San Miguel

The San Miguel soil series consists of well-drained, shallow to moderately deep silt loams that have a clay subsoil. San Miguel soils occur in mountainous areas at elevations of 700 to 3,300 feet, with slopes of 9 to 30 percent. The typical soil texture is that of loams and clay with medium to very rapid runoff and very slow permeability. San Miguel soils have a moderate extent and are located on Southern California mountains.

3.3.1.18 Tujunga

The Tujunga soil series consists of somewhat excessively drained, very deep sand that are derived from alluvium sourced from granite. The typical soil texture is that of sand with negligible to low runoff and high saturated hydraulic conductivity. Tujunga soils are extensive and occur in the Central and southern coastal plains and valleys. Tujunga soils occur on alluvial fans and floodplains, including urban areas, with elevations of 6 to 2,000 feet with slopes ranging from 0 to 12 percent.

3.3.1.19 Visalia

The Visalia soil series consists of moderately well drained, very deep sandy loams that are derived from granitic alluvium. The typical soil texture is that of sandy loam with very low runoff. Visalia soils occur on alluvial fans and flood plains with elevations of 400 to 2,000 feet with slopes ranging from 0 to 15 percent.

3.3.1.20 Vista

The Vista soils series consists of well-drained, moderately deep soils that are derived from decomposed granite. The typical soil texture is that of coarse sandy loam with slow to rapid runoff and moderately rapid permeability. Vista soils are extensive and occur in Southern California mountains and in the Sierra Nevada foothills. Vista soils occur on hilly slopes with elevations of 400 to 3,900 feet in southern California and at less than 3,500 feet in elevation in central California. Slopes for Vista soils ranges from 2 to 75 percent.

3.3.1.21 Wyman

The Wyman soils consists of well-drained, deep soils that are derived from andesitic and basaltic rocks. The typical soil texture is that of loam with slow to medium runoff and moderately slow permeability. Wyman soils are moderately extensive and occur mostly along the eastern side of the San Joaquin Valley and small intermountain valleys of Southern California. Wyman soils occur on nearly level to strongly sloping terraces and alluvial fans with elevations of 300 to 2,500 feet and have slopes of 0 to 15 percent.

4. JURISDICTIONAL DELINEATION RESULTS

The following chapter describes the delineated features and expected jurisdictional status within the PSA. Detailed information, including maps of the delineated features within the PSA, Wetland Determination Forms, and photographs are provided in the following appendices:

- Appendix A: Figures, contains figures.
- Appendix B: Site Photographs, March 2017, contains photographs
- Appendix C: Wetland Determination Forms, contains Wetland Delineation Forms.
- Appendix D: Summary Jurisdiction Delineation Table, contains Jurisdictional Delineation Table
- Appendix E: Summary Constraints Table, contains Summary Constraints Table

4.1 DELINEATION RESULTS

A total of 157 features within the PSA were identified and evaluated for potential state and federal jurisdiction pursuant to the regulations described above. These features generally fell into one of seven categories. Four are considered potentially jurisdictional: wetlands and riparian habitats, ephemeral streams, intermittent streams, perennial streams. Three are considered non-jurisdictional: swales, erosional features, and concrete v-ditches constructed in uplands as best management practices (BMPs). Appendix D: Summary Jurisdictional Delineation Table, provides a brief description of each feature evaluated within the PSA.

4.1.1 Potentially Jurisdictional Resources

4.1.1.1 Wetlands/Riparian Vegetation

Wetlands and/or riparian vegetation was identified within PSA.

Wetlands were present within Feature ID Nos. 002, 004, 007, 010, 018, 020, 035, 042, 049, 060, 066, 070, 088, 090, 092, 094, 103, 104, 111, 113, 122, 123, 124, 126, 127, and 128. Wetlands vegetation was predominantly associated with intermittent and perennial streams and was dominated by black, red, and arroyo willows (*Salix* sp.), mulefat (*Baccharis salicifolia*), cattail (*Typha* sp.), and bulrush (*Schoenoplectus* sp.). Some wetlands were inundated at the time of the site visit.

CDFW riparian areas included the wetland features above as well as Feature ID Nos. 067 and 091, which occurred within ephemeral streams and supported patches of mulefat, tamarisk (*Tamarix* sp.), and/or coast live oaks (*Quercus agrifolia*).

4.1.1.2 Ephemeral Streams

A total of 59 ephemeral streams were identified within the PSA. These features had clear bed and bank, as well as multiple OHWM indicators. OHWM indicators commonly included: shelving, changes in particle size, water staining, changes in vegetation cover/species, and changes in slope from the active floodplain to the low terrace. The ephemeral streams in the PSA were variable in size and ranged from one to 15 feet (ft) wide measured from bank to bank.

4.1.1.3 Intermittent Streams

A total of four intermittent stream were identified within the PSA. The majority of the intermittent streams identified throughout the project alignment were associated with tributaries to San Marcos Creek and/or Escondido Creek. These features often supported riparian vegetation and wetlands and were associated with NHD streamlines. These features had a clearly distinguished bed and bank and exhibited evidence of OHWM indicators such as shelving, sediment sorting, destruction of terrestrial vegetation, and water staining. Intermittent streams were typically identified in conjunction with perennial streams and were variable in size, ranging from nine to 92 ft measured from bank to bank.

4.1.1.4 Perennial Streams

Twelve perennial streams were identified within the PSA. Perennial streams were associated with San Marcos Creek and associated unnamed tributaries. Each perennial stream had contained flowing waters, evidence of inundation, and always supported wetlands and riparian vegetation.

4.1.2 Non-Jurisdictional Resources

4.1.2.1 Swales

All swales surveyed exhibited bowl-like structure generated by surface run-off with no continuous bed and bank and no OHWM. Most abated at the access road and did not continue downslope. These features are not potentially jurisdictional and can be graded during road improvement activities. A permit is not required for discharges of fill associated with road improvement activities; however, proper BMPs shall be implemented to prevent impacts such as erosion and sedimentation to downstream receiving waters.

4.1.2.2 BMP Concrete Channels

Concrete v-ditches constructed wholly in the uplands (i.e., did not replace a natural feature) to serve as hillside BMPs to unnaturally convey flows from natural or human-made slopes were not considered potentially jurisdictional. Although some ditches exhibited water staining, these features were constructed features associated with an adjacent development to control and direct run-off flows in highly urbanized areas. A total of 64 non-jurisdictional concrete v-ditches were identified within the PSA.

4.1.2.3 Erosional Features

Erosional features were typically rills created by water run-off flowing from existing access roads or other existing disturbance. These features did not exhibit OHWM indicators or a defined bed and bank. These features therefore are not potentially jurisdictional and can be graded during road improvement activities. A permit is not required for discharges of fill associated with construction activities within non-jurisdictional resources; however, proper BMPs shall be implemented to prevent potential impacts to downstream receiving waters from erosion or sedimentation.

4.2 CONCLUSION

Table 3, Existing Jurisdictional Delineation Features Summary, contains jurisdictional summaries for potentially jurisdictional resources. All delineated jurisdictional features are either San Marcos Creek or unnamed tributaries to San Marcos Creek and Escondido Creek. Both are relatively permanent waterbodies, which eventually flow into the Pacific Ocean (a Traditional Navigable Water). Therefore, the delineated jurisdictional resources are subject to regulation under Sections 404 and 401 of the CWA and CDFW jurisdiction under Sections 1600–1616 of the California Fish and Game Code.

Table 3: Existing Jurisdictional Delineation Features Summary

Habitat Type	Stream Length	USACE/RWQCB	CDFW
	Linear Feet	Acres[1]	Acres[1]
Wetland	10,621	5.97	7.45
Non-wetland	17,291	1.74	2.54
Riparian	1,113	0.18	0.28
TOTAL	**29,025**	**7.89**	**10.27**

[1]Total acreage may not add up to the total shown; total is reflective of rounding GIS raw data in each category.
USACE: U.S. Army Corps of Engineers
RWQCB: Regional Water Quality Control Board
CDFW: California Department of Fish and Wildlife

4.2.1 Construction Constraints

Six poles (Location 7, 35, work area between 70 and 71, 72, 97, and 99) and five staging yard (shown on Sheets 9, 53, 68, 71) are located within 25 feet of jurisdictional resources. Additionally, several jurisdictional resources cross access roads unculverted. Work areas adjacent to jurisdictional resources should implement avoidance and minimization measures including flagging the impact limits and installing proper BMPs to avoid potential impacts to jurisdictional resources. A Summary Constraint Table that summarizes all the jurisdictional resources that occur within or adjacent to work areas are presented in Appendix E.

An aquatics monitor is recommended for all work activities occurring within the project areas identified within Appendix E (with the exception of the access road crossings).

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Appendix A
Figures

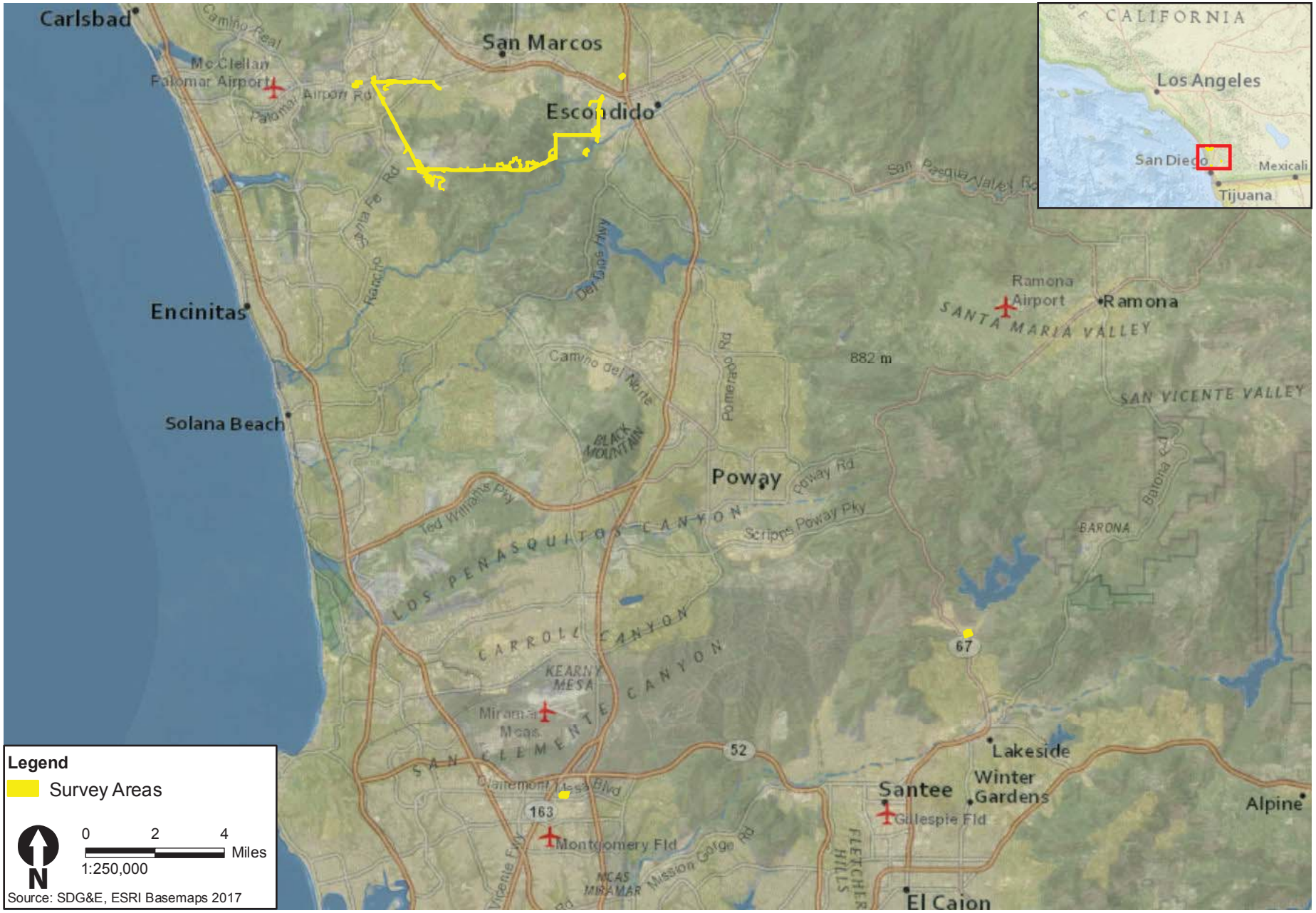

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Figure 1
Regional Vicinity Map

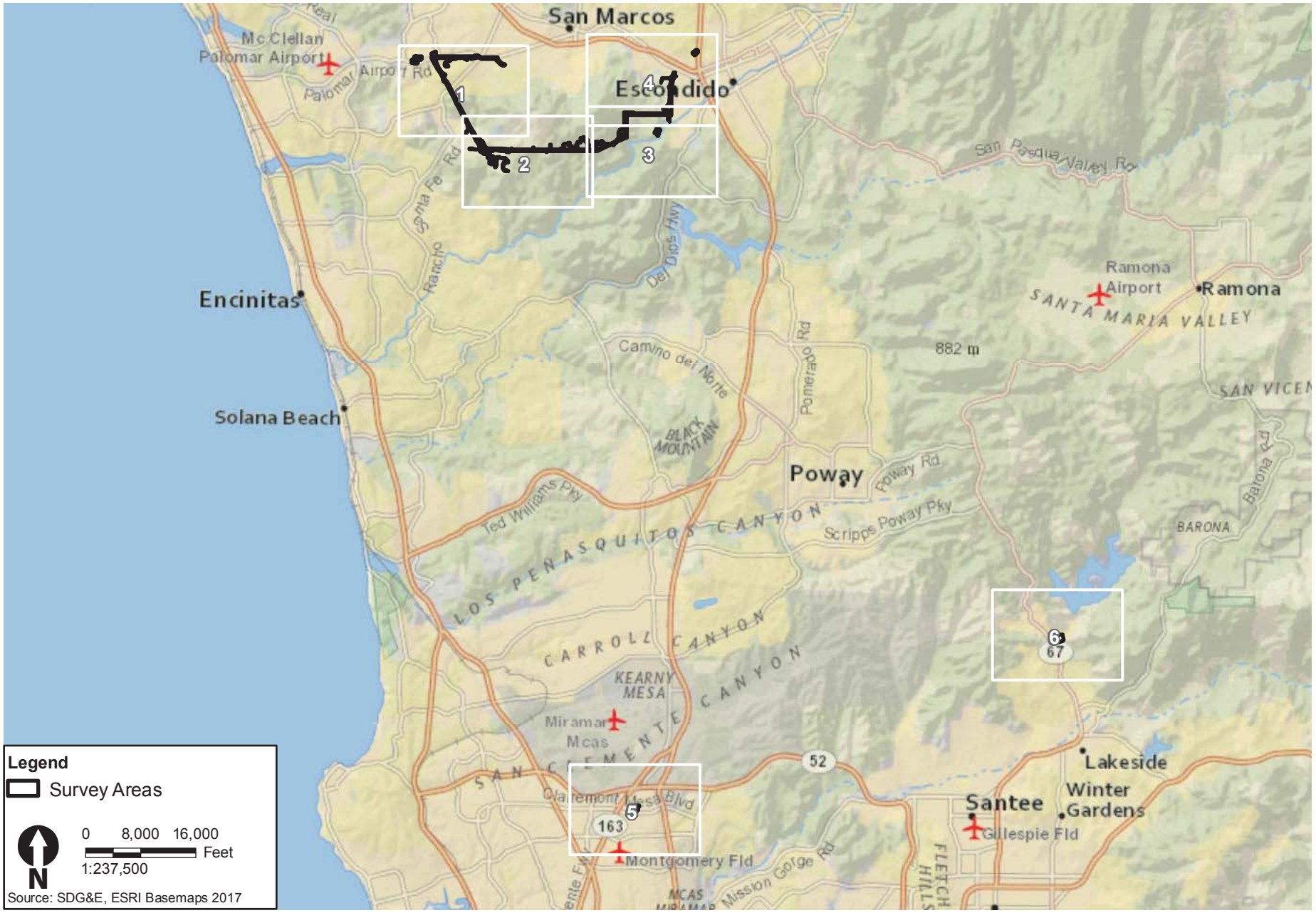

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Figure 2 - Overview
Project Vicinity

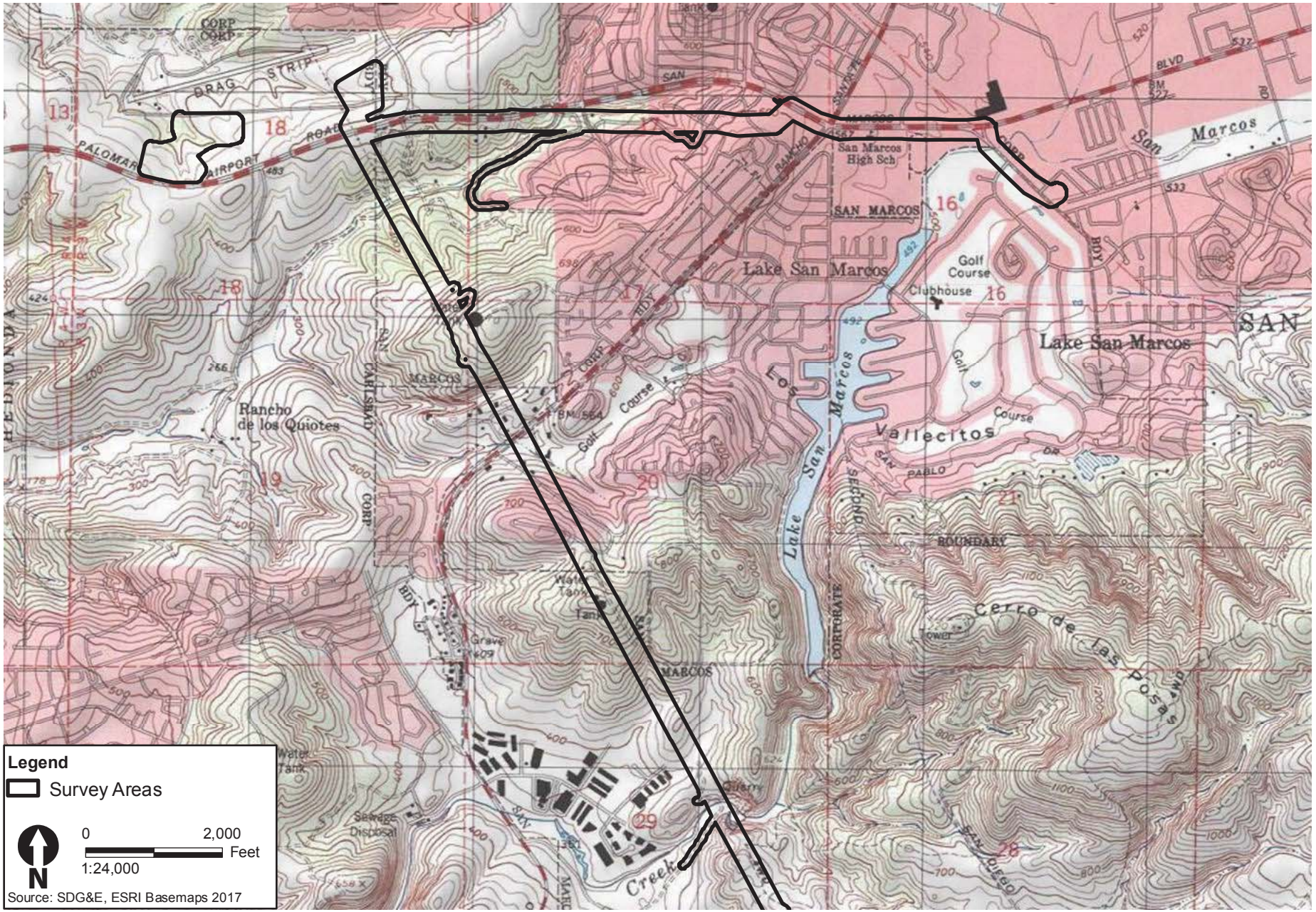

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Figure 2 - 1
Project Vicinity

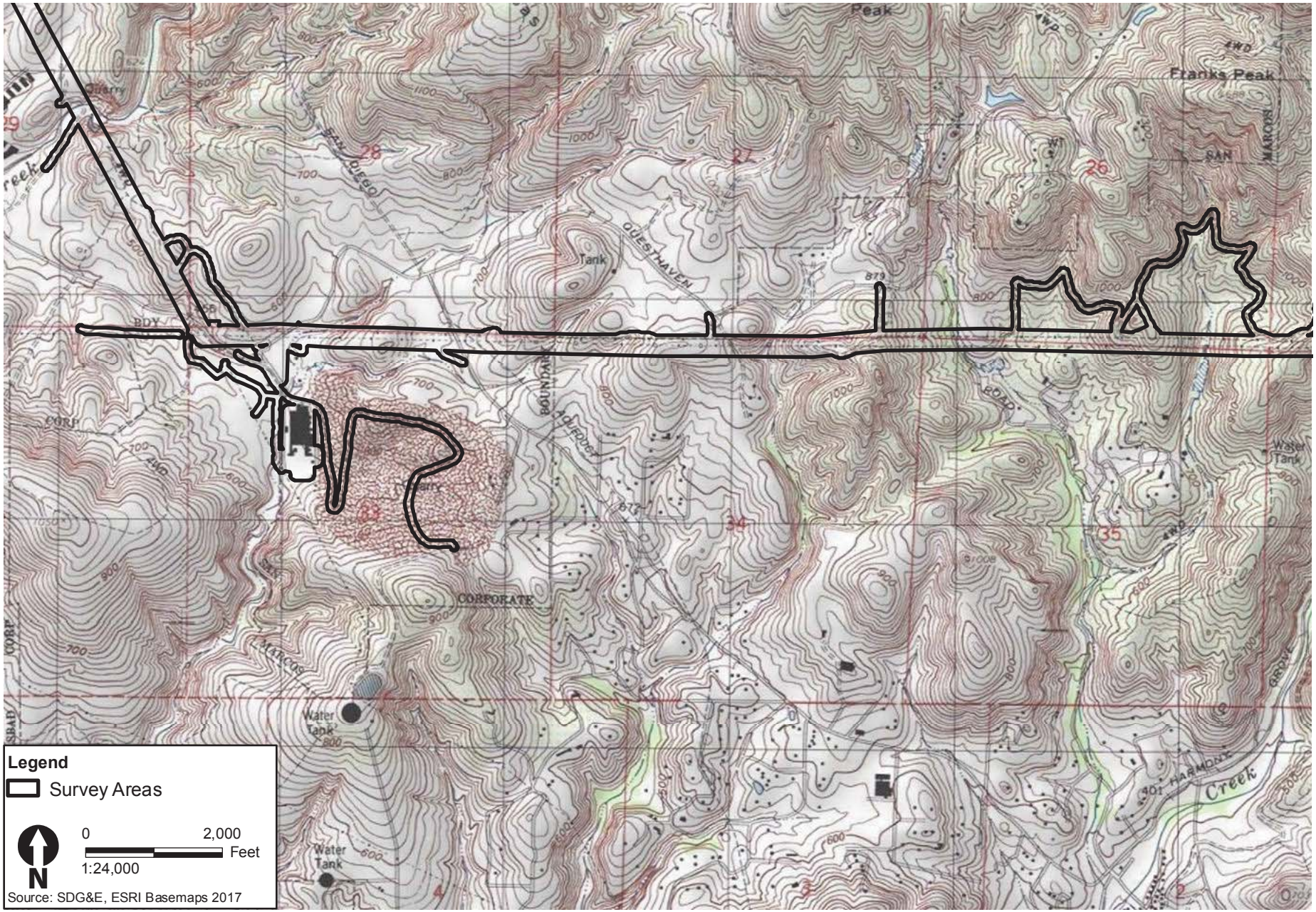

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Figure 2 - 2
Project Vicinity

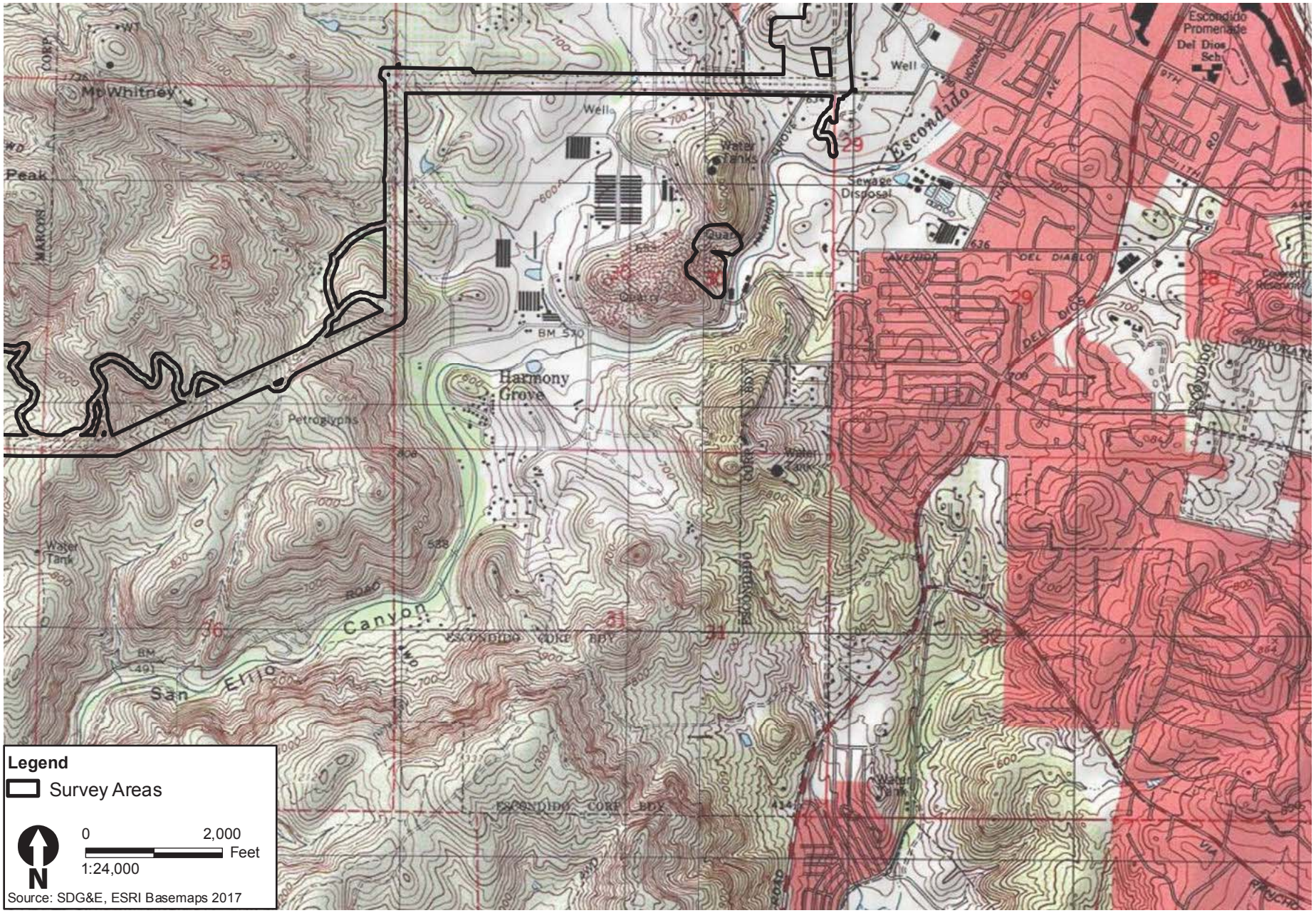

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Figure 2 - 3
Project Vicinity

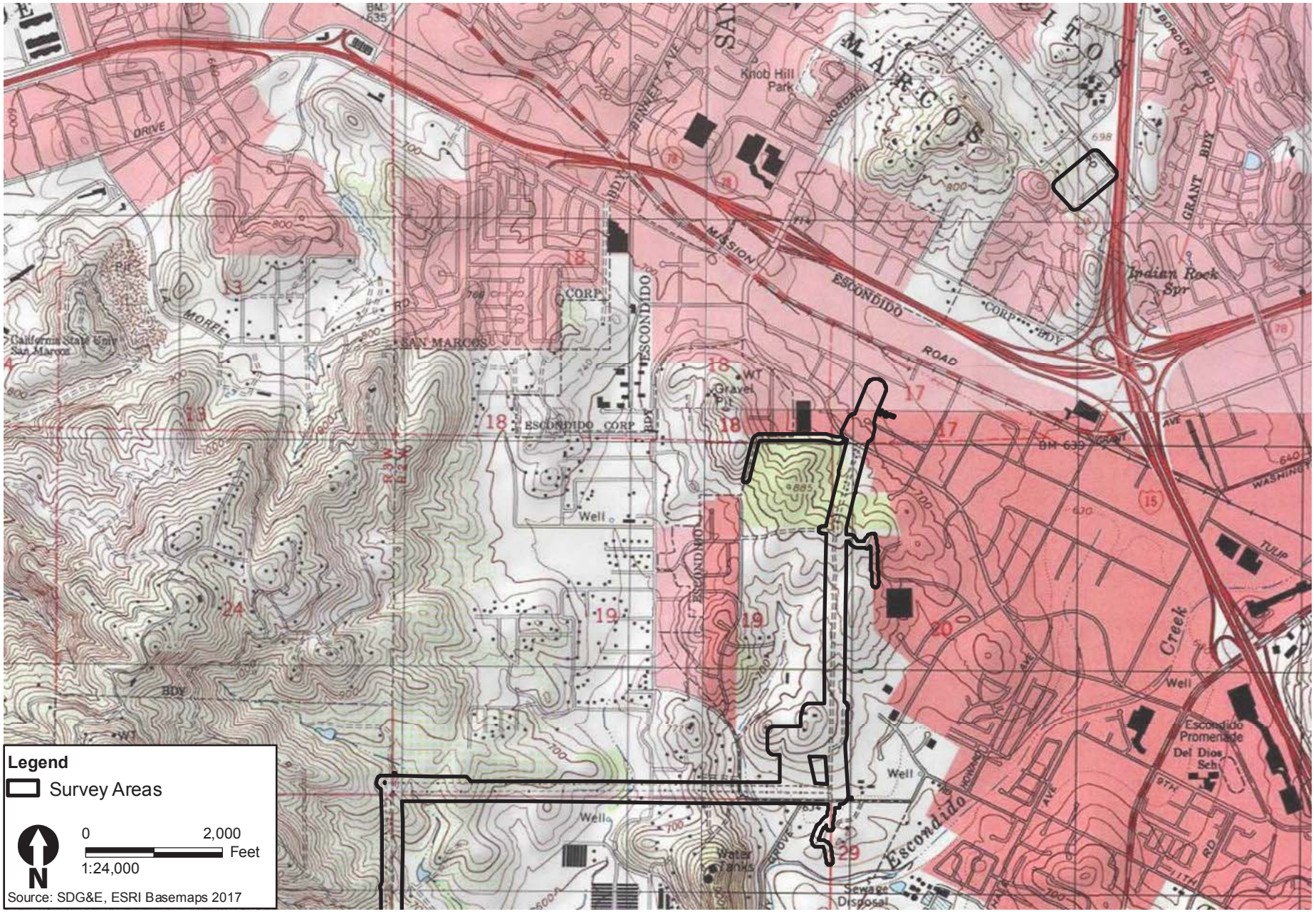

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Figure 2 - 4
Project Vicinity

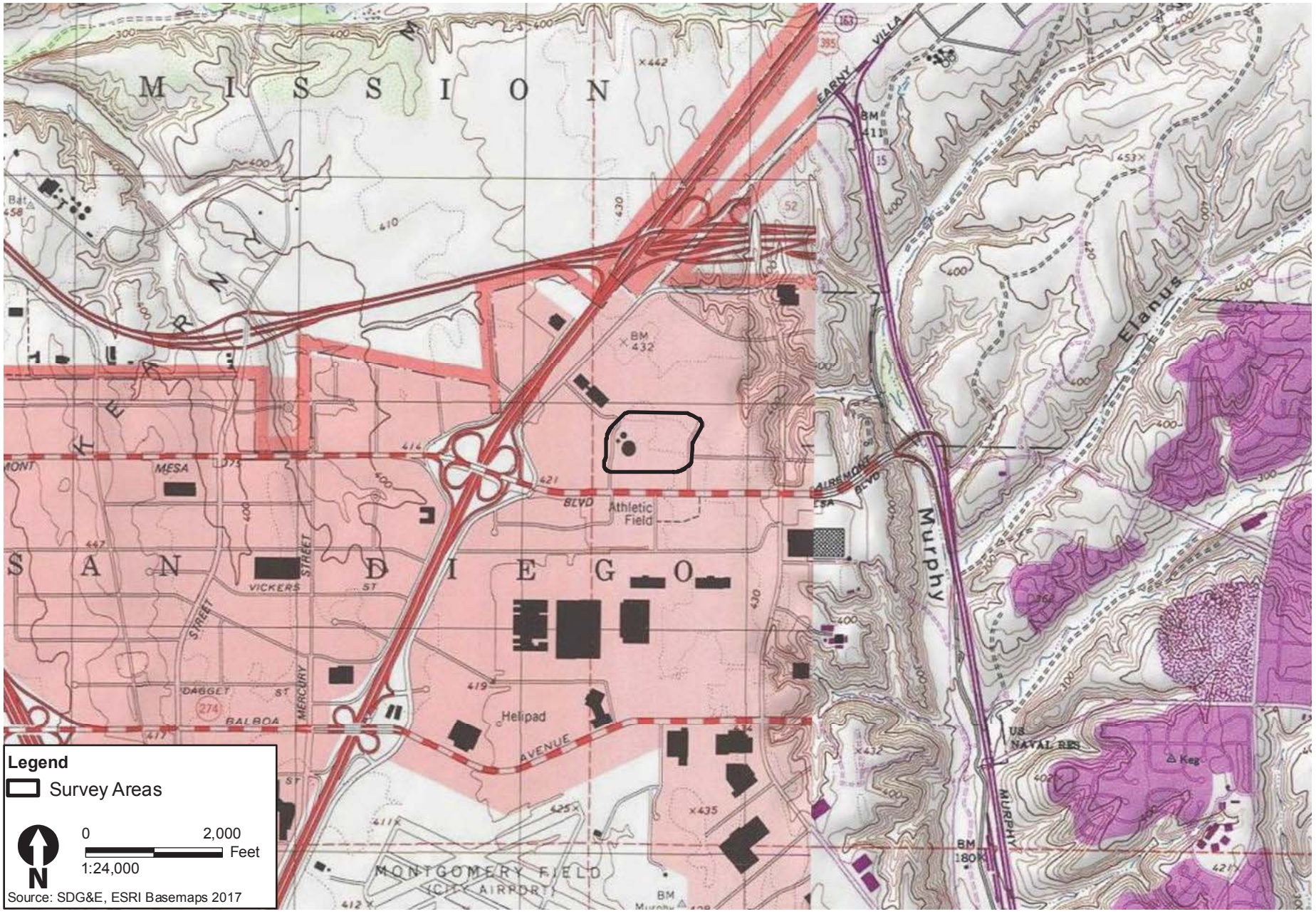

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Figure 2 - 5
Project Vicinity

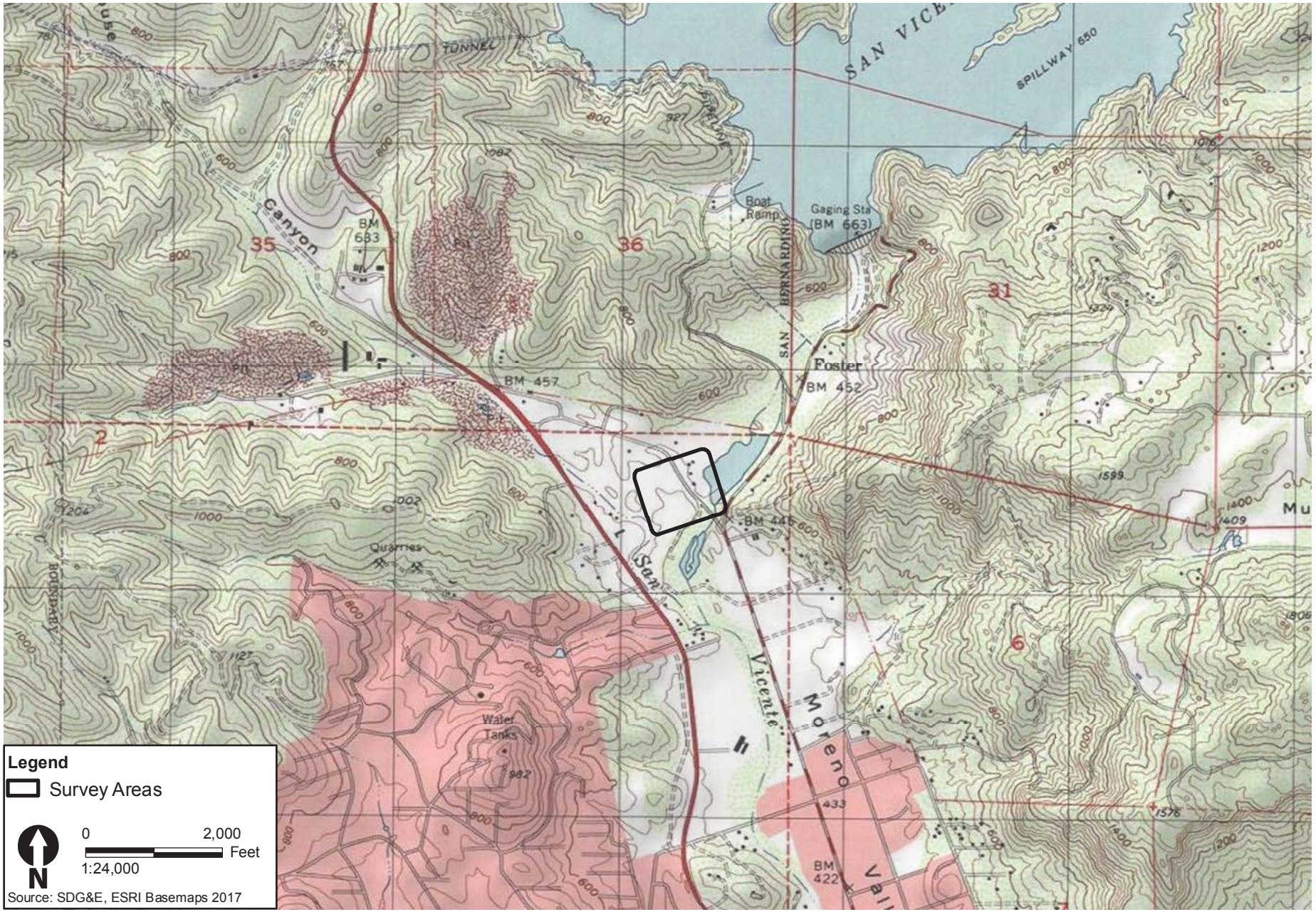

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Figure 2 - 6
Project Vicinity

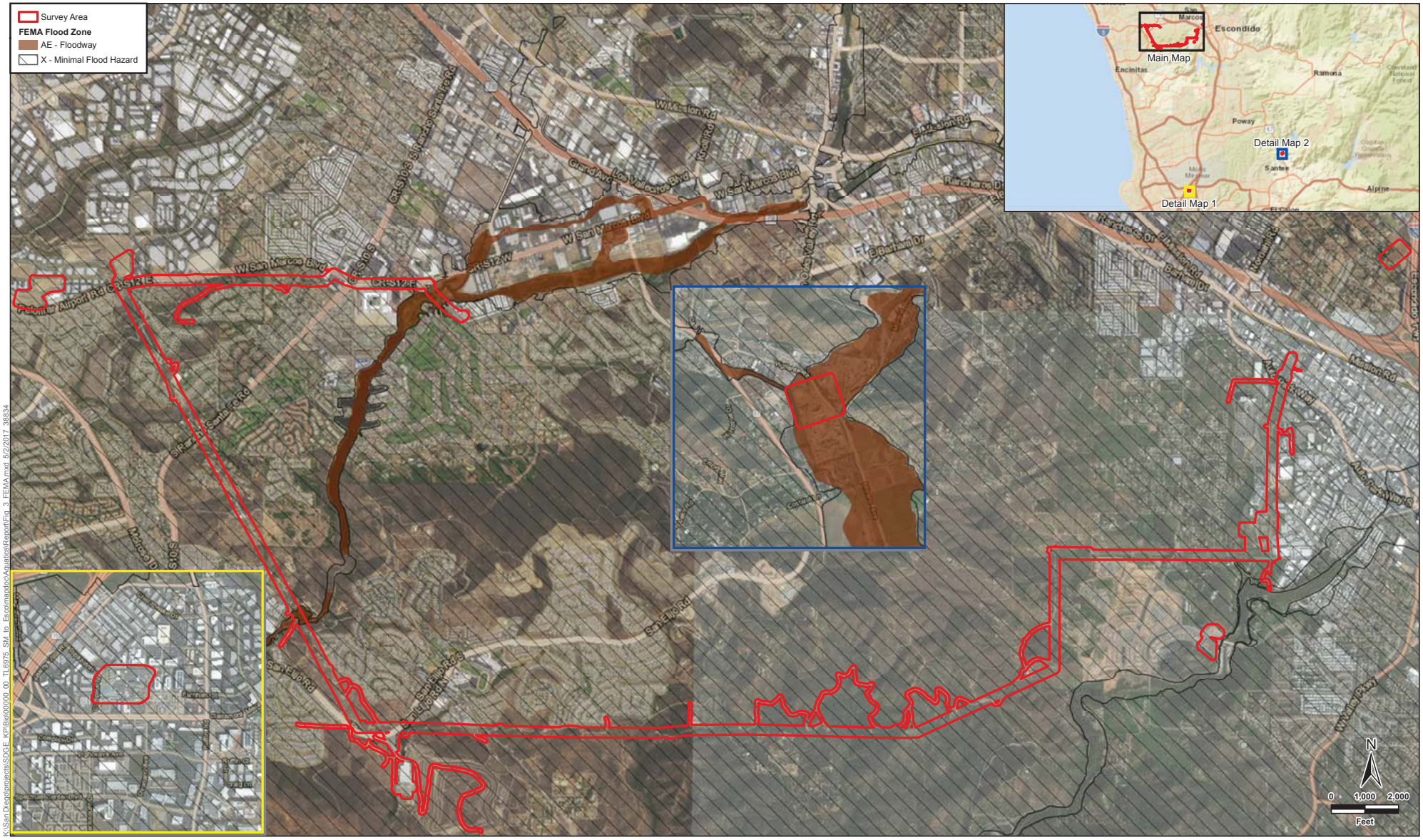

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Figure 3
FEMA 100-Year Floodplain
TL 6975 Escondido to San Marcos New 69kV Project

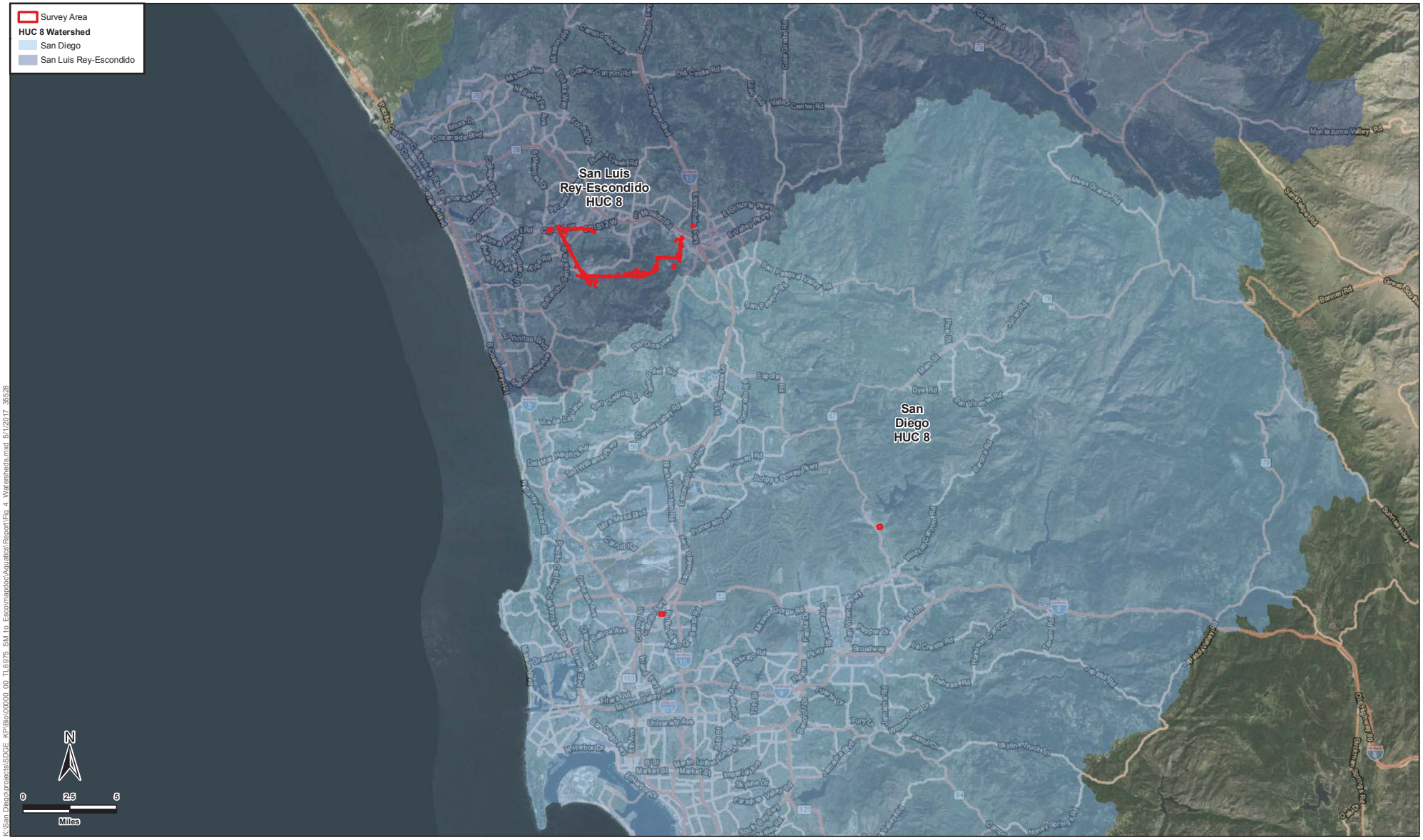

Figure 4
Watersheds
TL 6975 Escondido to San Marcos New 69kV Project

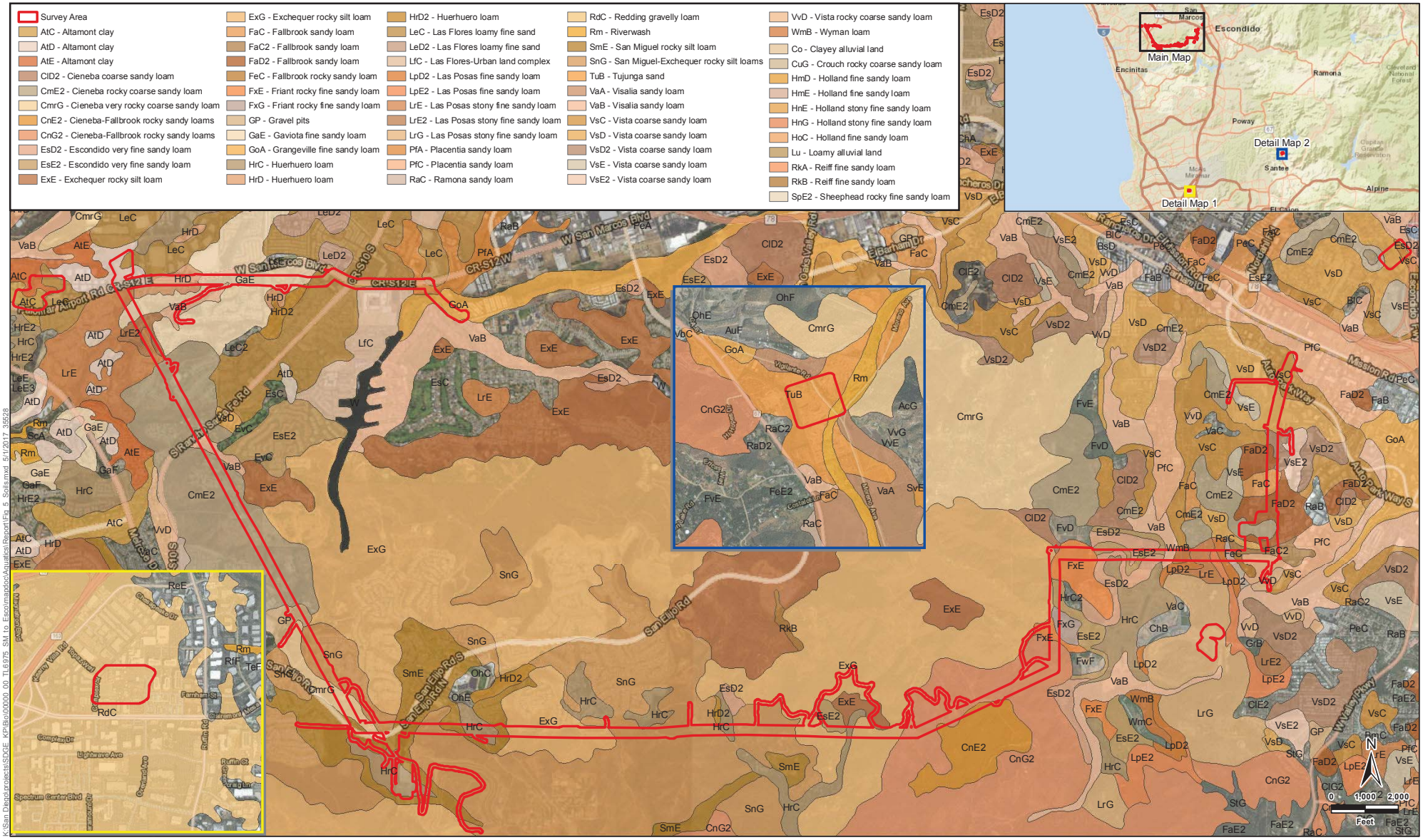

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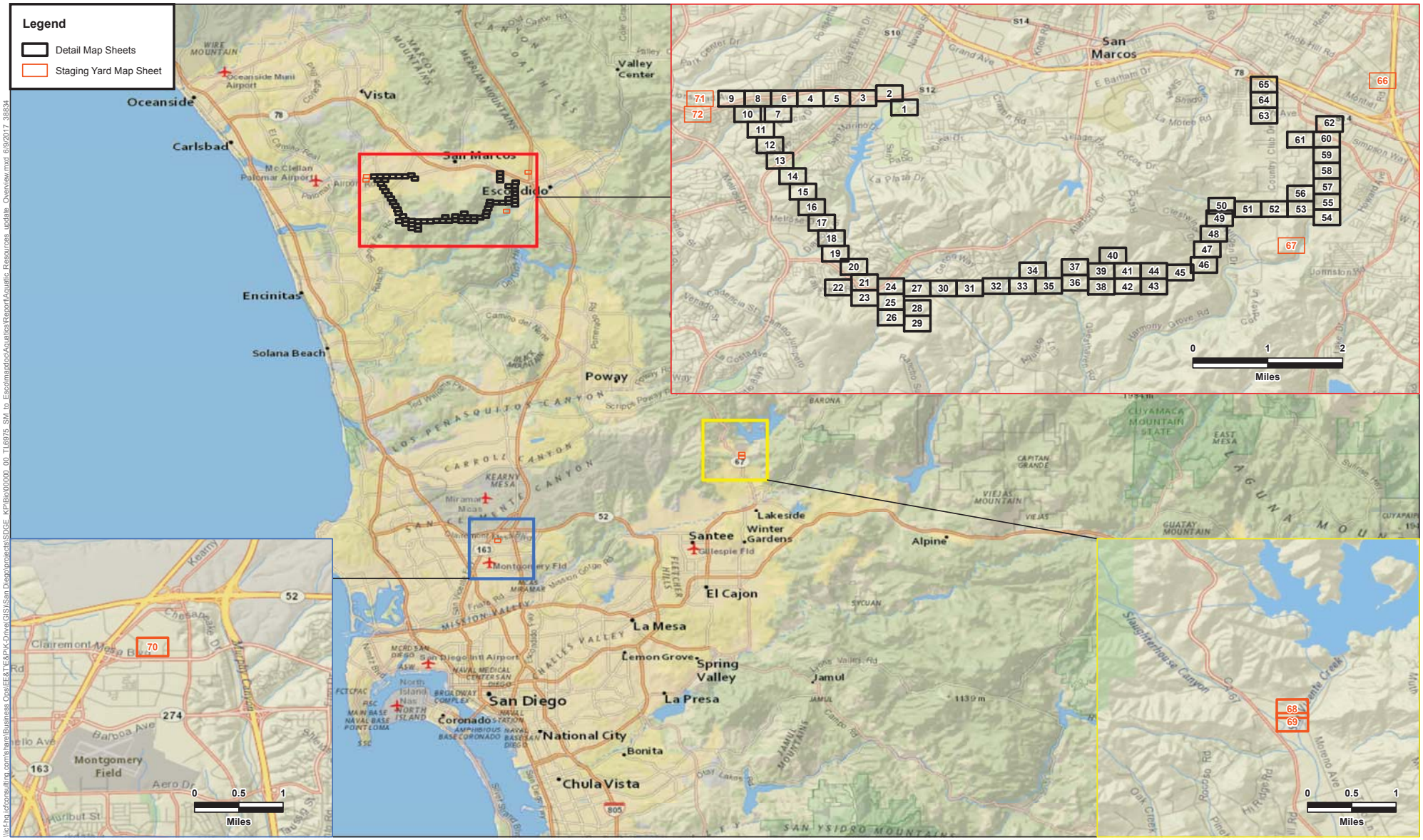
Figure 5
Soils
TL 6975 Escondido to San Marcos New 69kV Project



Detail Map Sheets

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Figure 6a
Jurisdictional Delineation Index
TL 6975 Escondido to San Marcos New 69kV Project

Culverts
Wetland Data Points

Non-Jurisdictional Features
Concrete V-Ditch (BMP)

Jurisdictional Waters (USACE/RWQCB/CDFW)
Ephemeral stream
Perennial stream
Wetland/Riparian

Project Components
Survey Area

Project Components
Permanent Impacts

Temporary Impacts
Poles
Transmission Line

N

0 65 130
Feet

Figure 6b-01
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Wetland Data Points
Non-Jurisdictional Features
Concrete V-Ditch (BMP)
Jurisdictional Waters (USACE/RWQCB/CDFW)
Perennial stream
Wetland/Riparian
Project Components
Survey Area
Project Components
Permanent Impacts
Temporary Impacts
Poles
Transmission Line

N
0 65 130
Feet

Figure 6b-02
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Figure 6b-03
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

Culverts
Wetland Data Points
Jurisdictional Waters (USACE/RWQCB/CDFW)
Ephemeral stream
Concrete Lined Ephemeral Stream
Intermittent stream
Perennial stream
Swale
Wetland/Riparian
Project Components
Survey Area
Project Components
Permanent Impacts
Temporary Impacts
Poles
Transmission Line
Access Roads
Access Roads-40ft Buffer

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Feet

Figure 6b-04
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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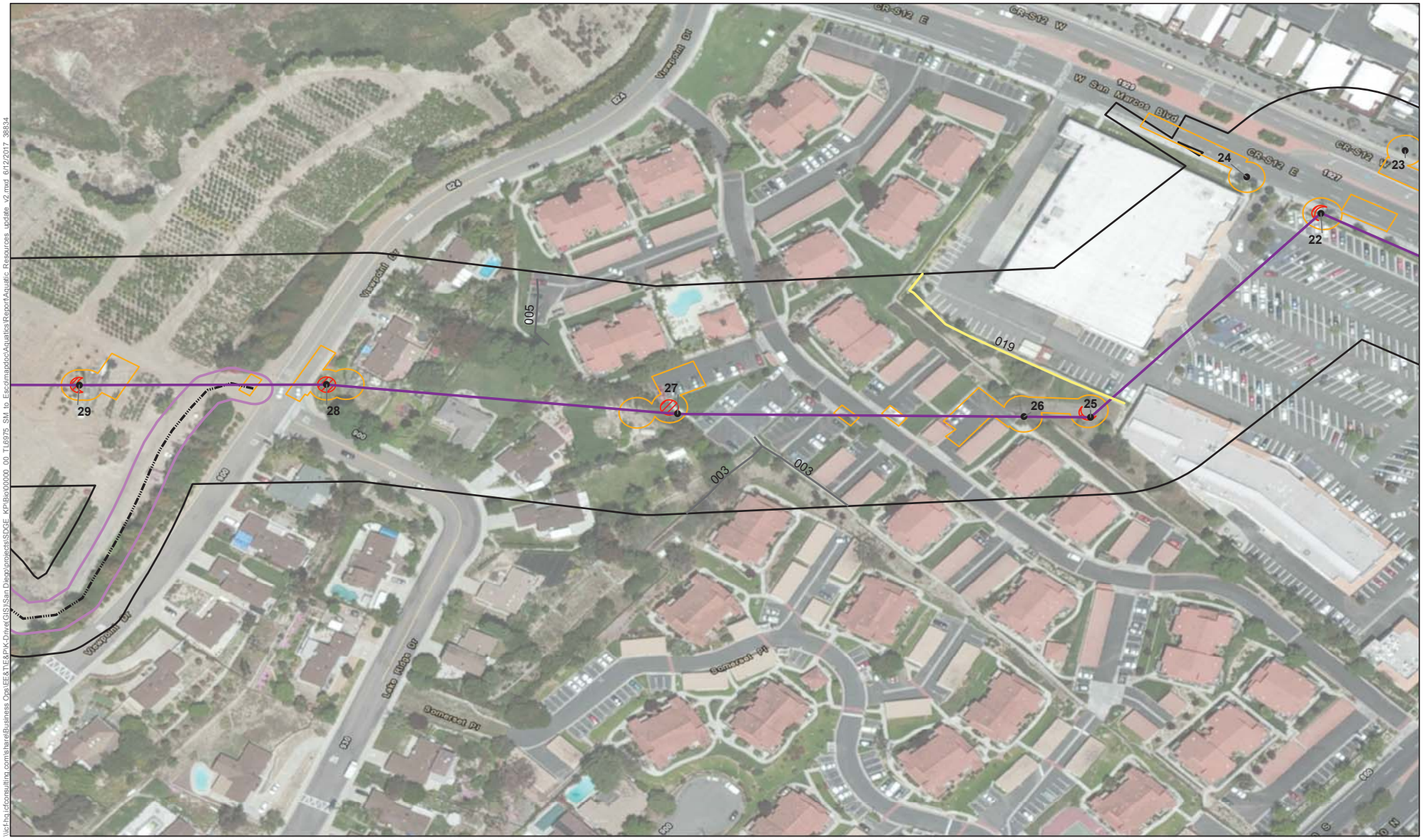

Non-Jurisdictional Features
- Concrete V-Ditch (BMP)

Jurisdictional Waters (USACE/RWQCB/CDFW)
- Concrete Lined Ephemeral Stream

Project Components
- Survey Area
- Permanent Impacts
- Temporary Impacts
- Poles
- Transmission Line
- Access Roads
- Access Roads-40ft Buffer

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Figure 6b-05
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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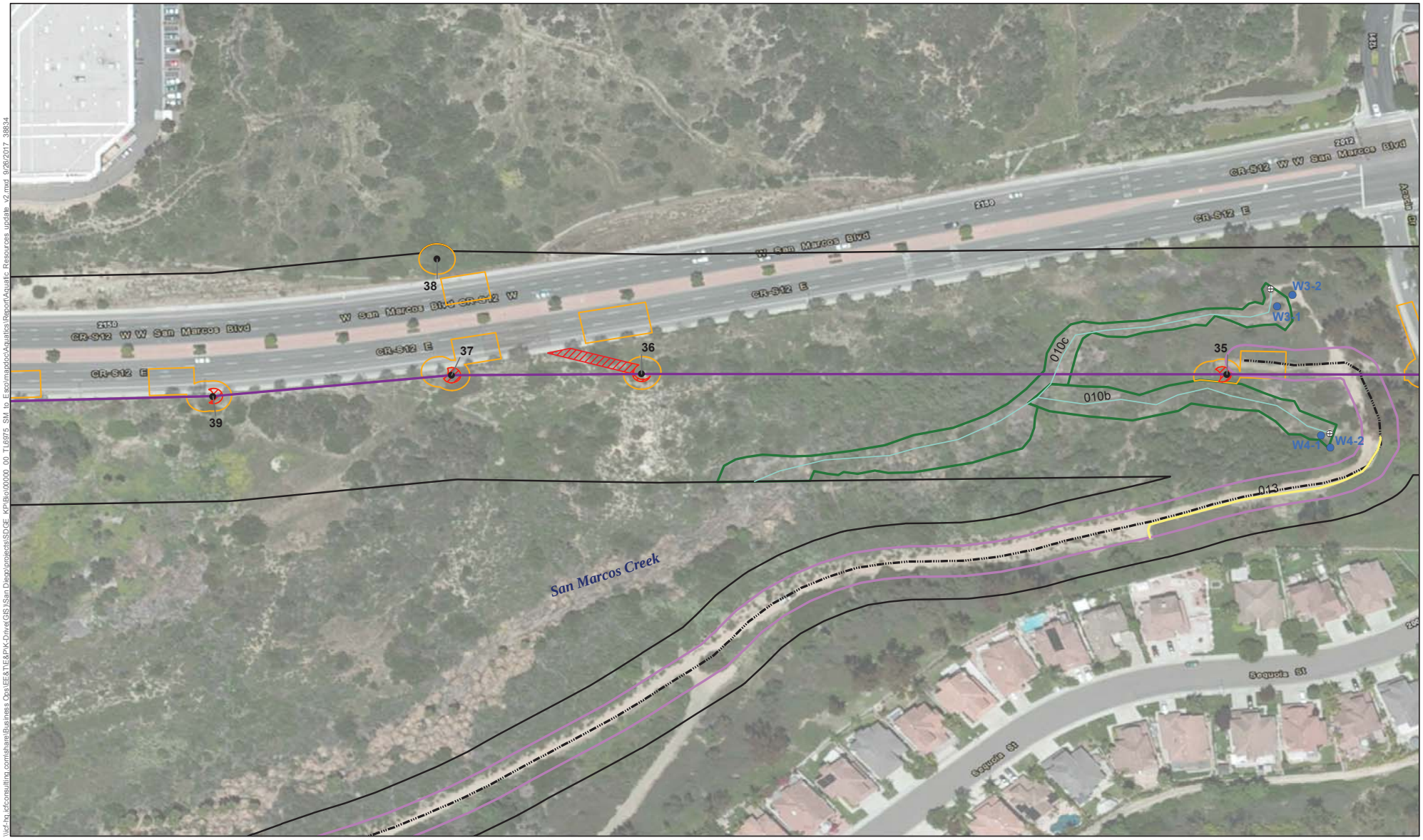

Figure 6b-06
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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⊕ Culverts

Non-Jurisdictional Features

Concrete V-Ditch (BMP)

Jurisdictional Waters (USACE/RWQCB/CDFW)

Ephemeral stream

Project Components

Survey Area

Access Roads

Access Roads-40ft Buffer

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Feet

Figure 6b-07
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

Non-Jurisdictional Features
- Concrete V-Ditch (BMP)

Project Components
- Survey Area
- Staging Yard

Project Components
- Permanent Impacts
- Temporary Impacts

- Poles
- Transmission Line

N

0 65 130
Feet

Figure 6b-08
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

Non-Jurisdictional Features
- Concrete V-Ditch (BMP)
- Wetland/Riparian

Project Components
- Survey Area

Project Components
- Permanent Impacts
- Temporary Impacts

- Poles
- Transmission Line
- Access Roads

- Access Roads-40ft Buffer

N

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Feet

Figure 6b-09
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Figure 6b-10
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Sand Dollar Way
San Island Pl
Goya Pl
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Culverts

Non-Jurisdictional Features

Concrete V-Ditch (BMP)

Project Components

Survey Area

Project Components

Permanent Impacts

Temporary Impacts

Poles

Transmission Line

Access Roads

Access Roads-40ft Buffer

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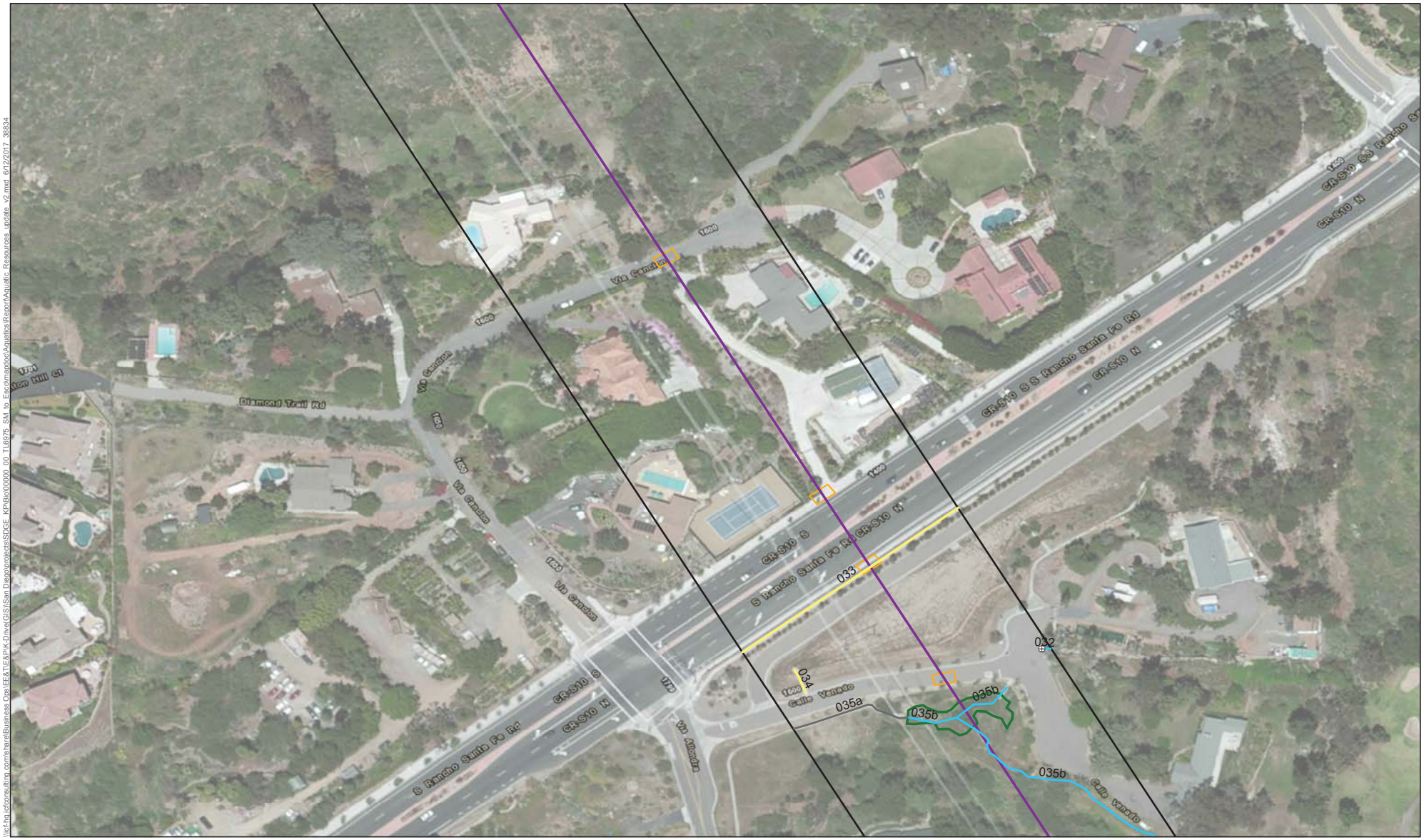
Feet

Figure 6b-12
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



Culverts

Non-Jurisdictional Features

Concrete V-Ditch (BMP)

Jurisdictional Waters (USACE/RWQCB/CDFW)

Ephemeral stream

Concrete Lined Ephemeral Stream

Wetland/Riparian

Project Components

Survey Area

Temporary Impacts

Transmission Line

N

0 65 130

Feet

Figure 6b-13
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Non-Jurisdictional Features
- Concrete V-Ditch (BMP)

Jurisdictional Waters (USACE/RWQCB/CDFW)
- Ephemeral stream
- Swale

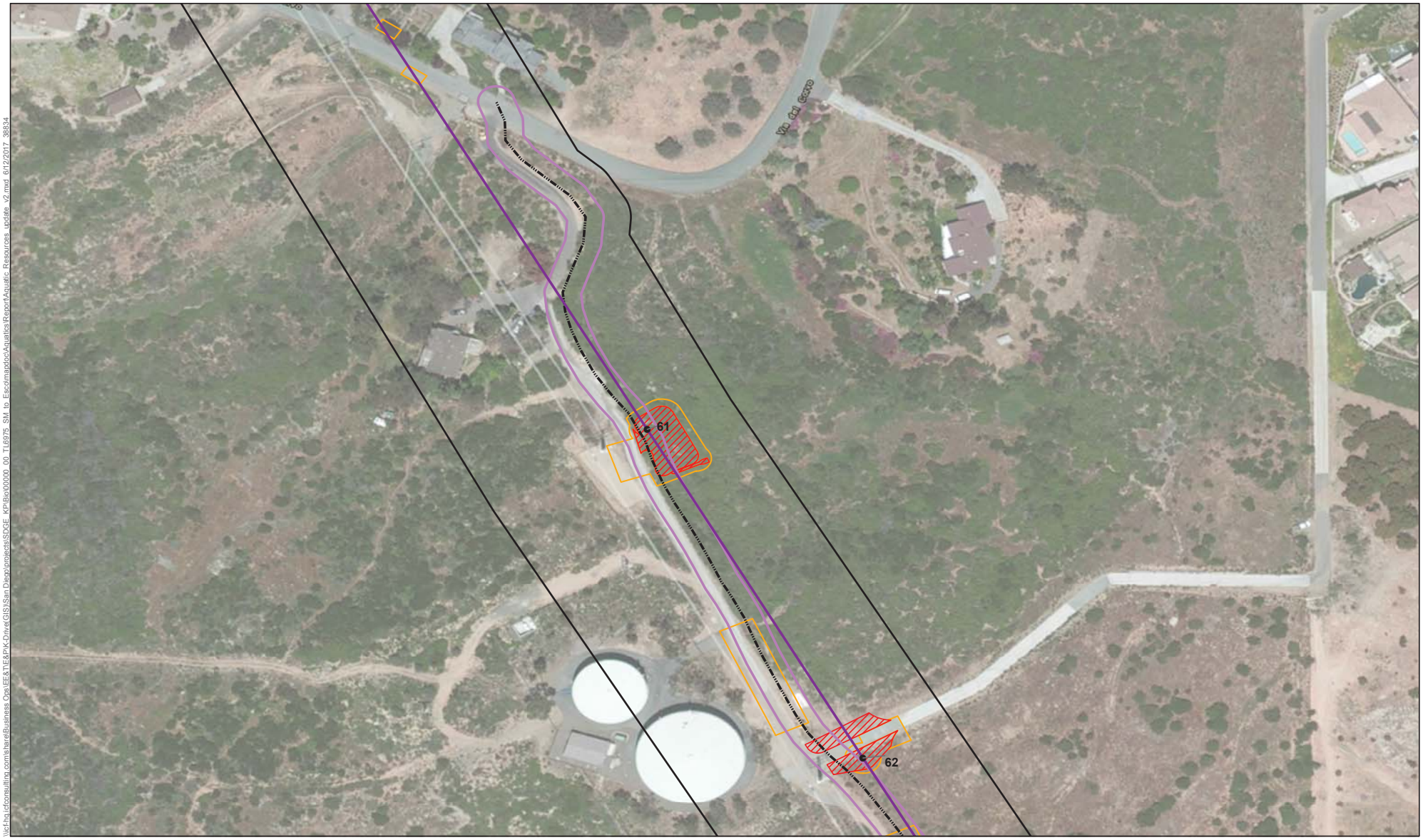
Project Components
- Survey Area

Project Components
- Permanent Impacts
- Temporary Impacts
- Poles
- Transmission Line

N

0 65 130
Feet

Figure 6b-14
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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Project Components
- Survey Area

Project Components
- Permanent Impacts
- Temporary Impacts

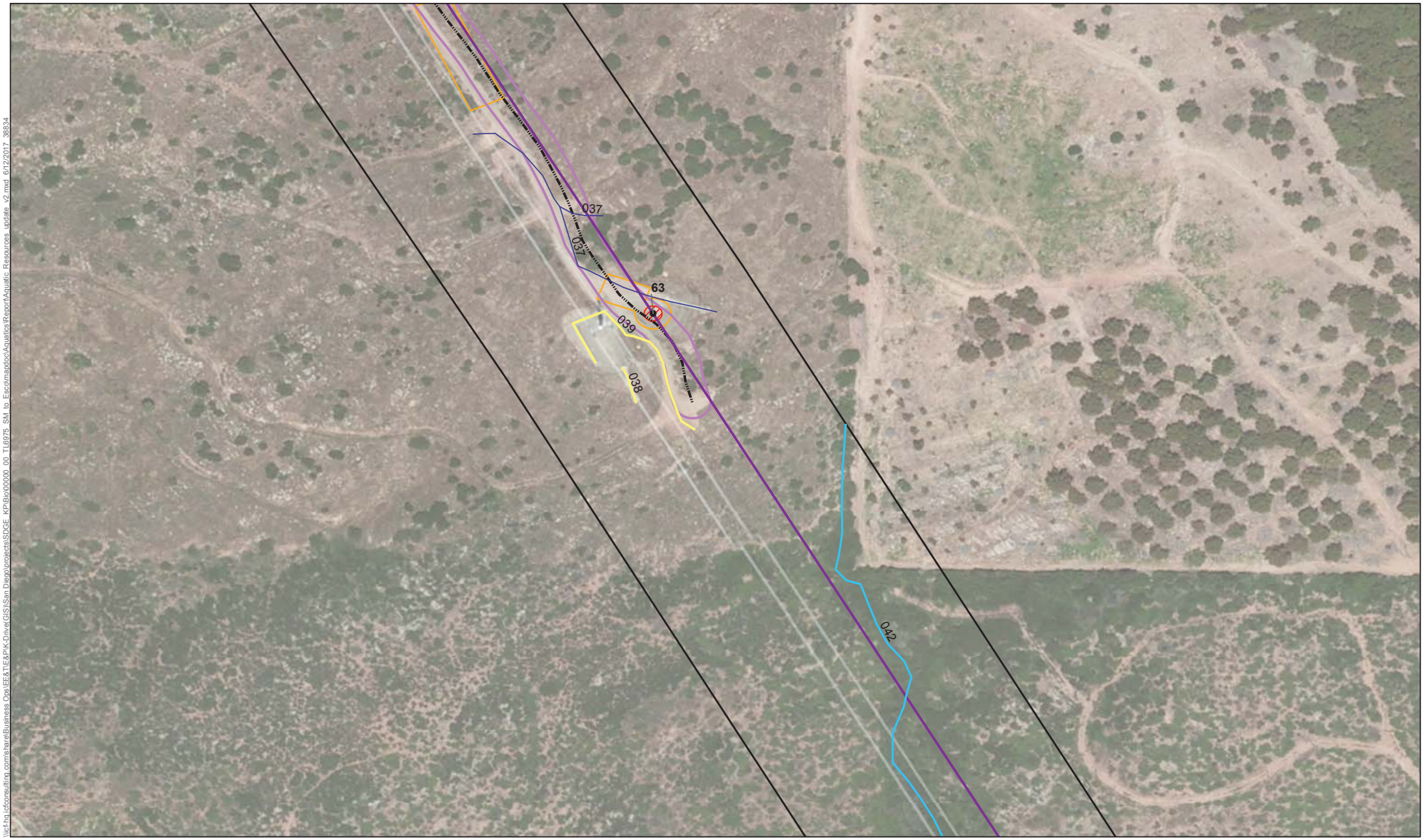
- Poles
- Transmission Line
- Access Roads

- Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-15
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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Non-Jurisdictional Features
- Concrete V-Ditch (BMP)

Jurisdictional Waters (USACE/RWQCB/CDFW)
- Ephemeral stream
- Erosional rill

Project Components
- Survey Area

Project Components
- Permanent Impacts
- Temporary Impacts

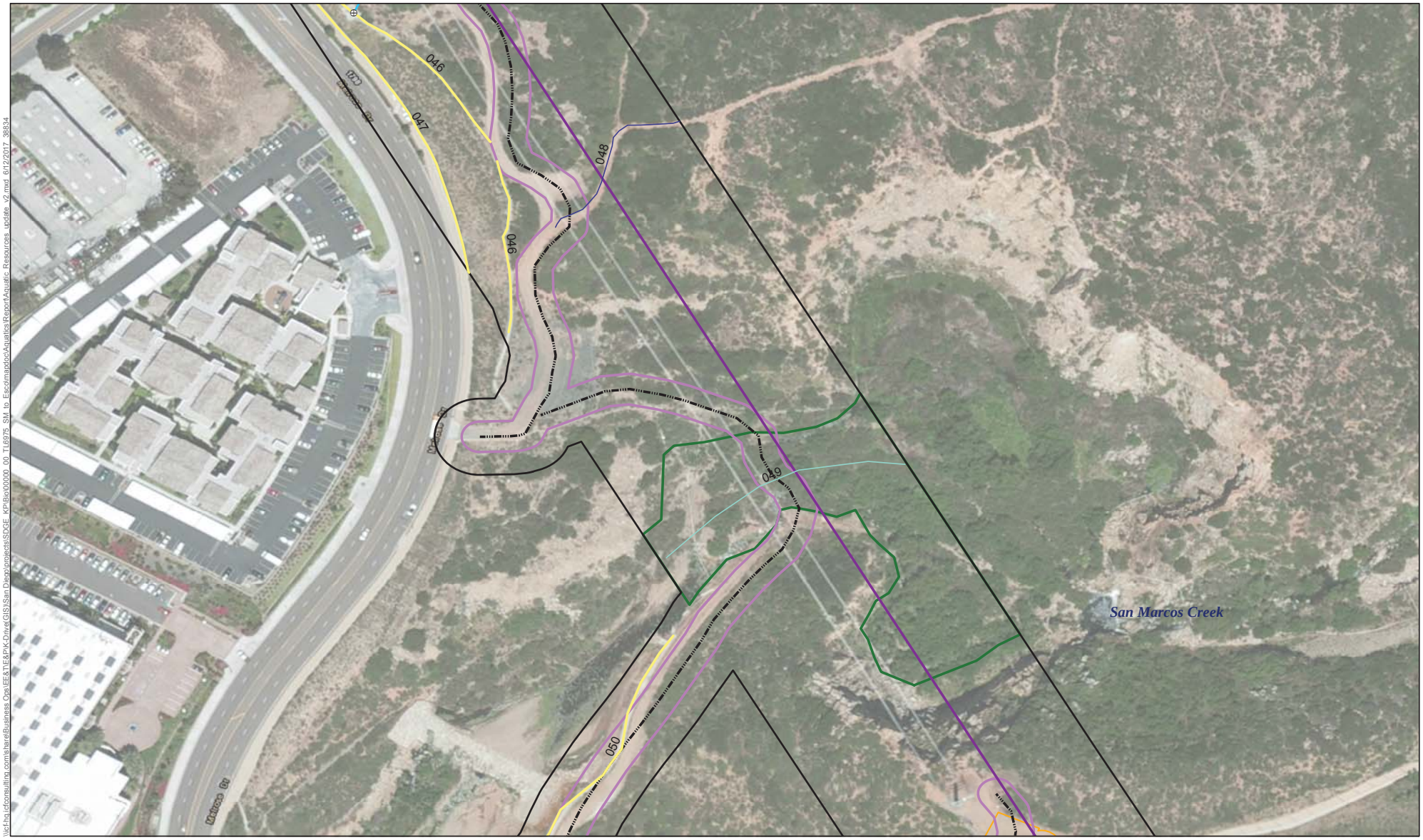
- Poles
- Transmission Line
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-16
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

Figure 6b-17
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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- Culverts
- **Non-Jurisdictional Features**
  - Concrete V-Ditch (BMP)
- **Jurisdictional Waters (USACE/RWQCB/CDFW)**
  - Ephemeral stream
  - Erosional rill
  - Perennial stream
  - Wetland/Riparian
- **Project Components**
  - Survey Area
  - Temporary Impacts
  - Transmission Line
  - Access Roads
  - Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-18
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Wetland Data Points

Non-Jurisdictional Features

Concrete V-Ditch (BMP)

Jurisdictional Waters (USACE/RWQCB/CDFW)

Concrete Lined Ephemeral Stream

Project Components

Survey Area

Project Components

Permanent Impacts

Temporary Impacts

Poles

Transmission Line

Access Roads

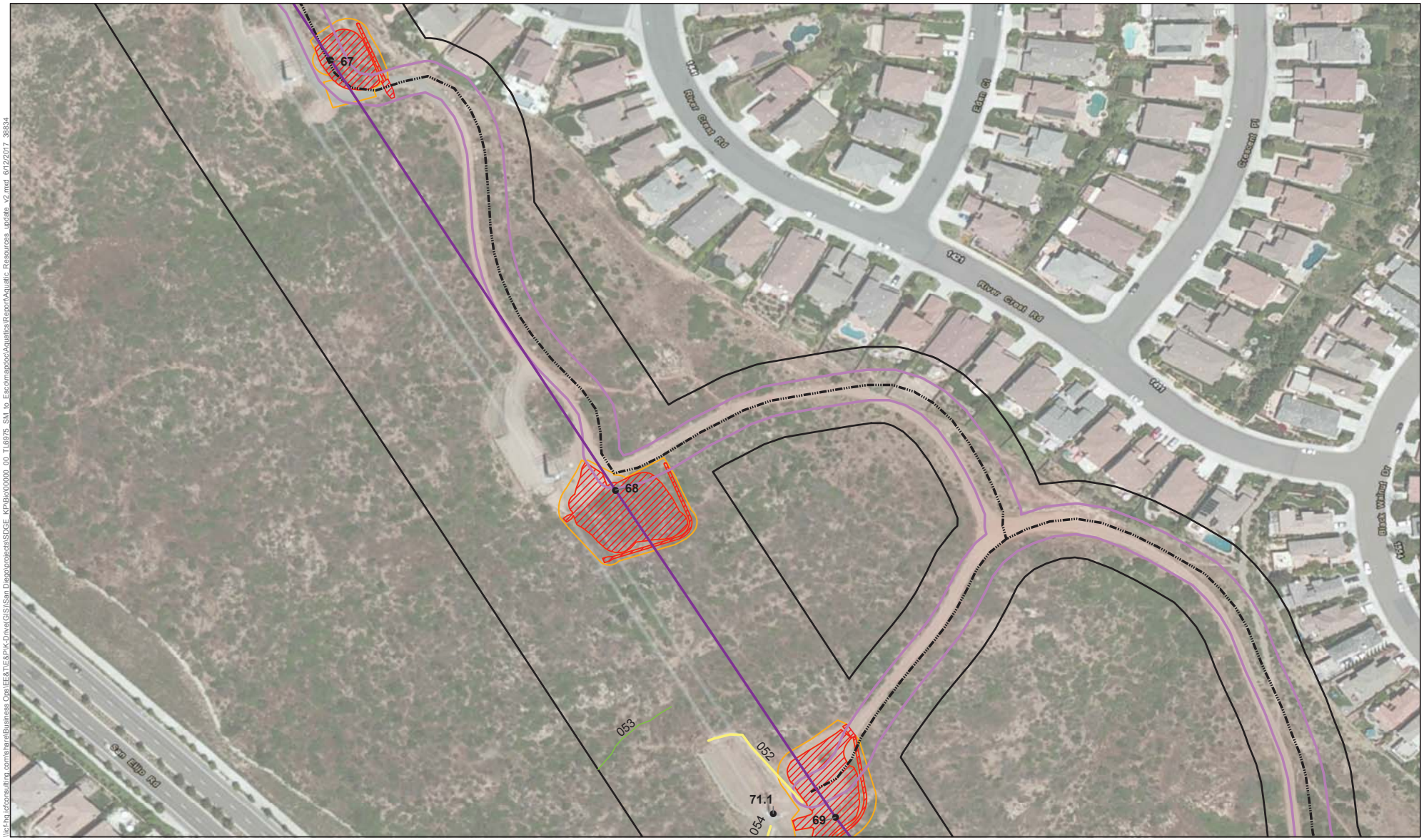
Access Roads-40ft Buffer

N

0 65 130

Feet

Figure 6b-19
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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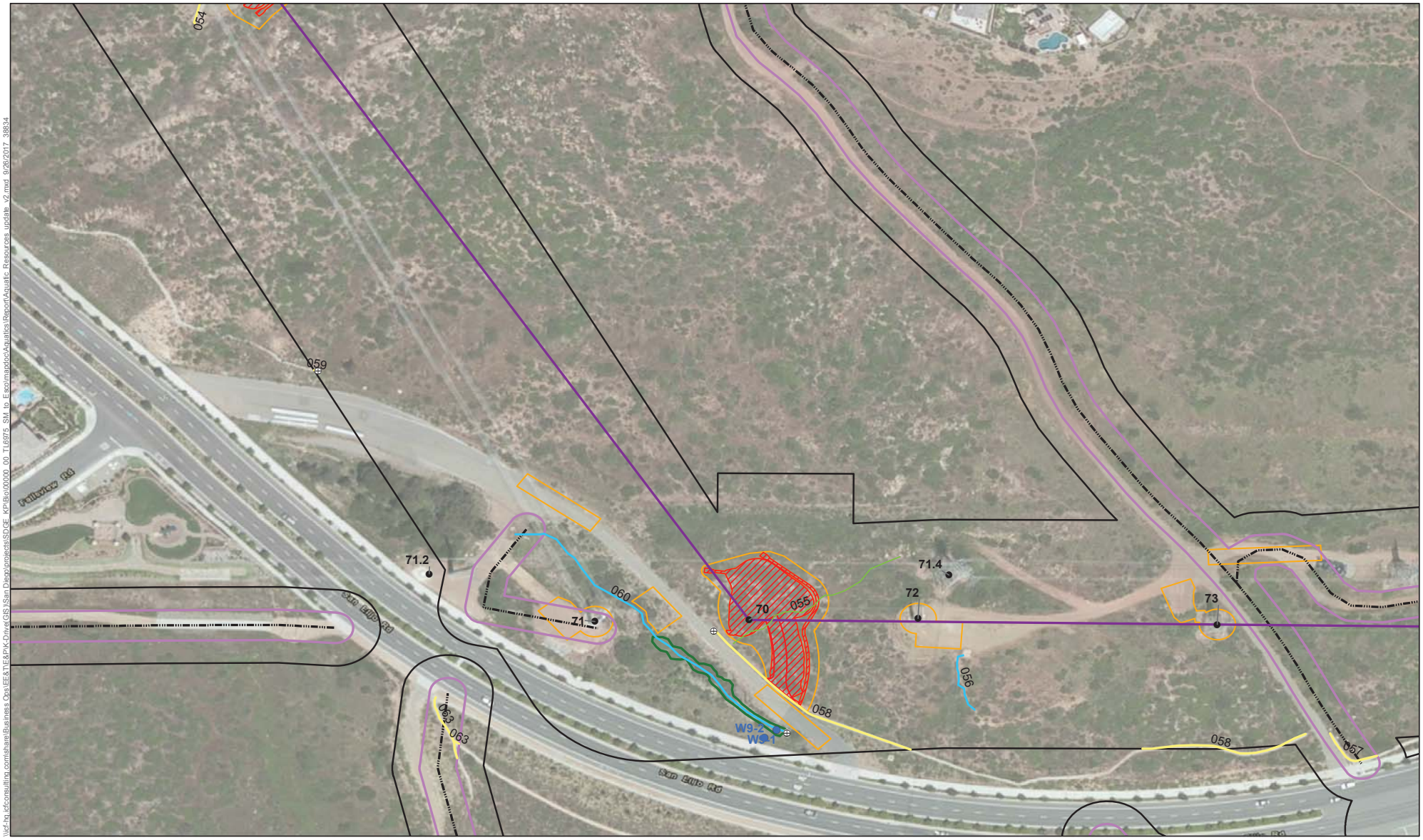
Non-Jurisdictional Features
Concrete V-Ditch (BMP)
Jurisdictional Waters (USACE/RWQCB/CDFW)
Swale

Project Components
Survey Area
Project Components
Permanent Impacts
Temporary Impacts

Poles
Transmission Line
Access Roads
Access Roads-40ft Buffer

N
0 65 130
Feet

Figure 6b-20
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



Culverts
Wetland Data Points
Non-Jurisdictional Features
Concrete V-Ditch (BMP)

Jurisdictional Waters (USACE/RWQCB/CDFW)
Ephemeral stream
Swale
Wetland/Riparian

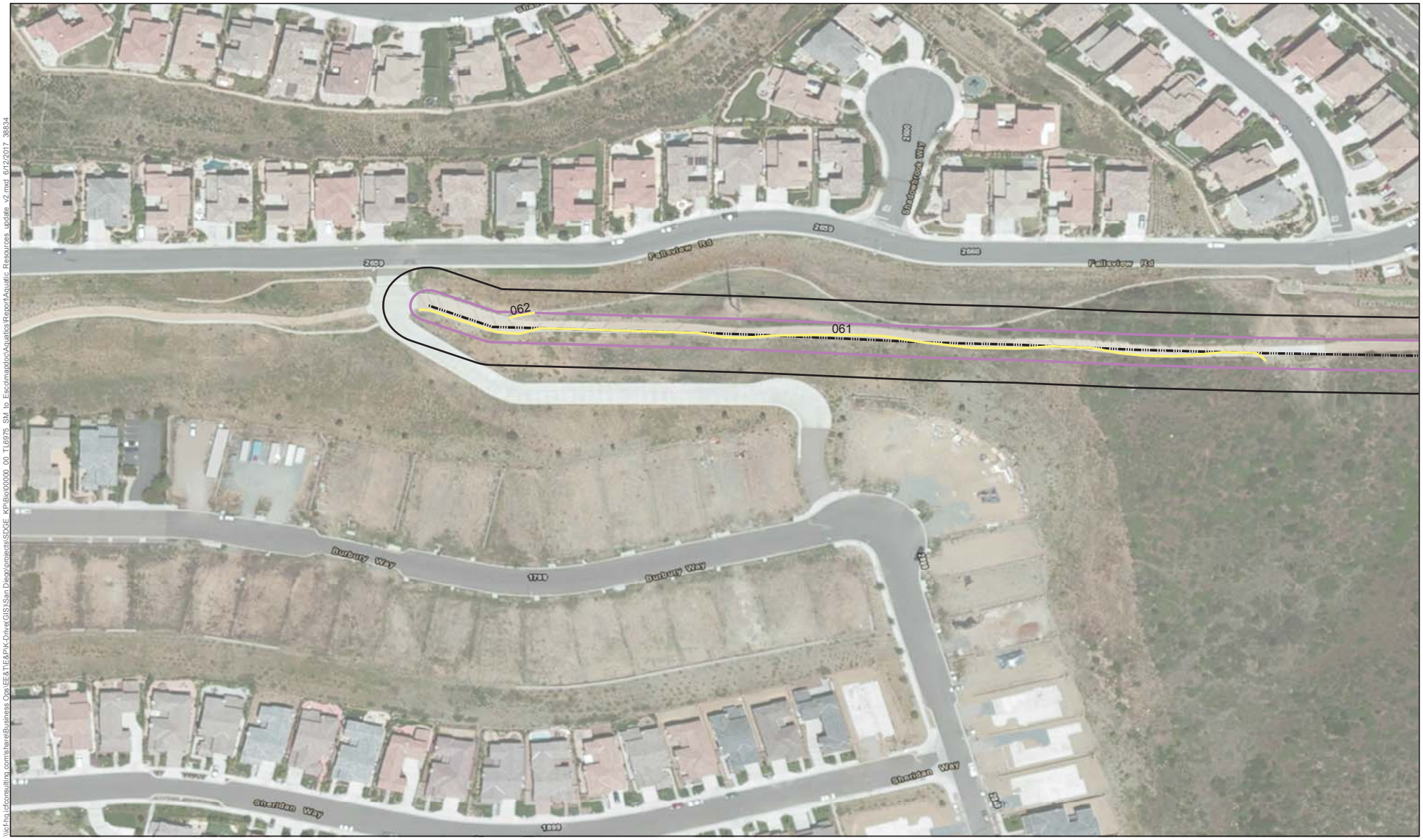
Project Components
Survey Area
Project Components
Permanent Impacts
Temporary Impacts

Poles
Transmission Line
Access Roads
Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-21
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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Non-Jurisdictional Features
Concrete V-Ditch (BMP)

Project Components
Survey Area
Access Roads
Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-22
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Project Components

- Survey Area
- Poles
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130

Feet

Figure 6b-23
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

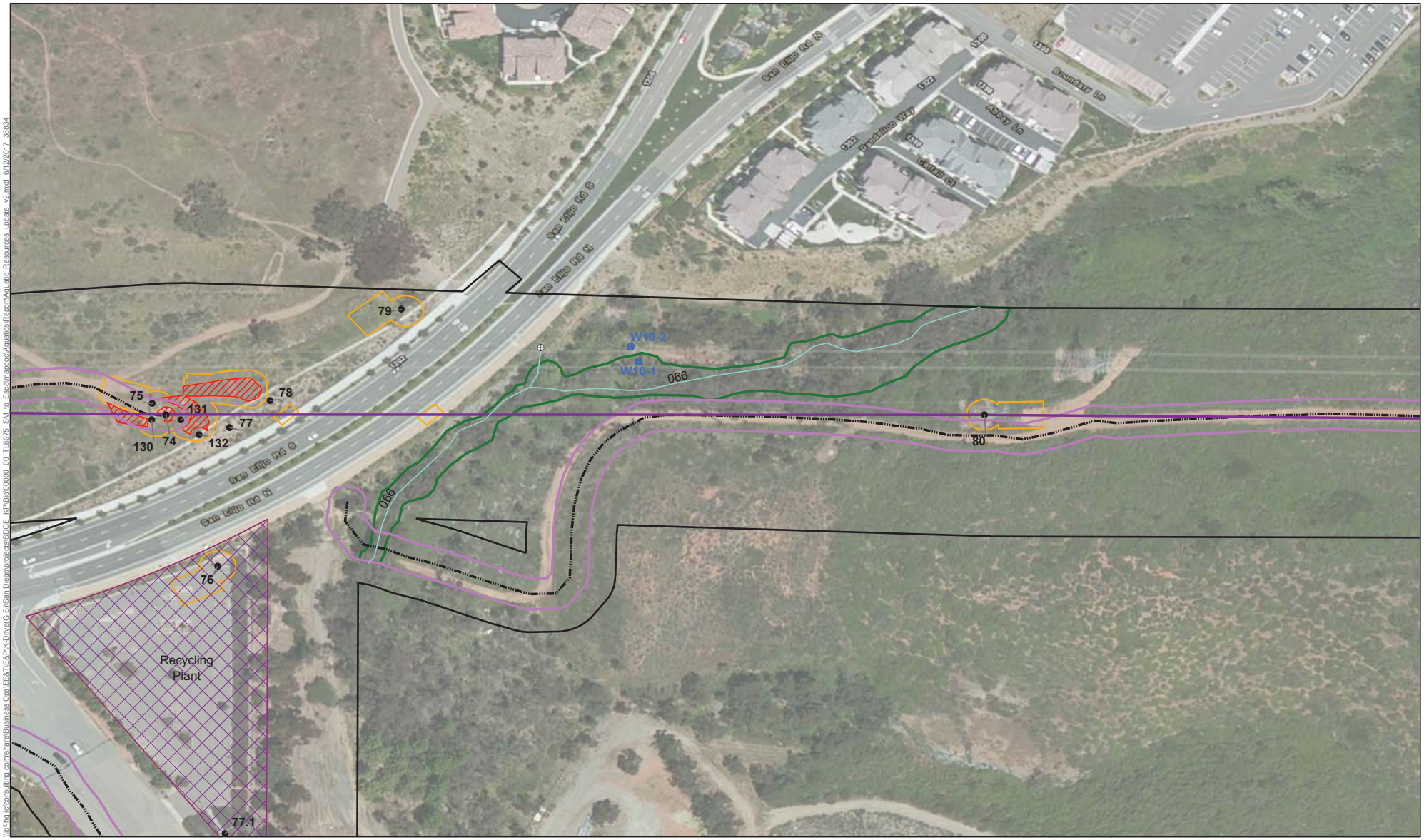

Figure 6b-24
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Jurisdictional Waters (USACE/RWQCB/CDFW)
Swale

Project Components
Survey Area
Staging Yard
Temporary Impacts
Poles
Access Roads
Access Roads-40ft Buffer

N
0 65 130
Feet

Figure 6b-25
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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⊕ Culverts

Jurisdictional Waters (USACE/RWQCB/CDFW)

Swale

Project Components

Survey Area

Staging Yard

Temporary Impacts

Access Roads

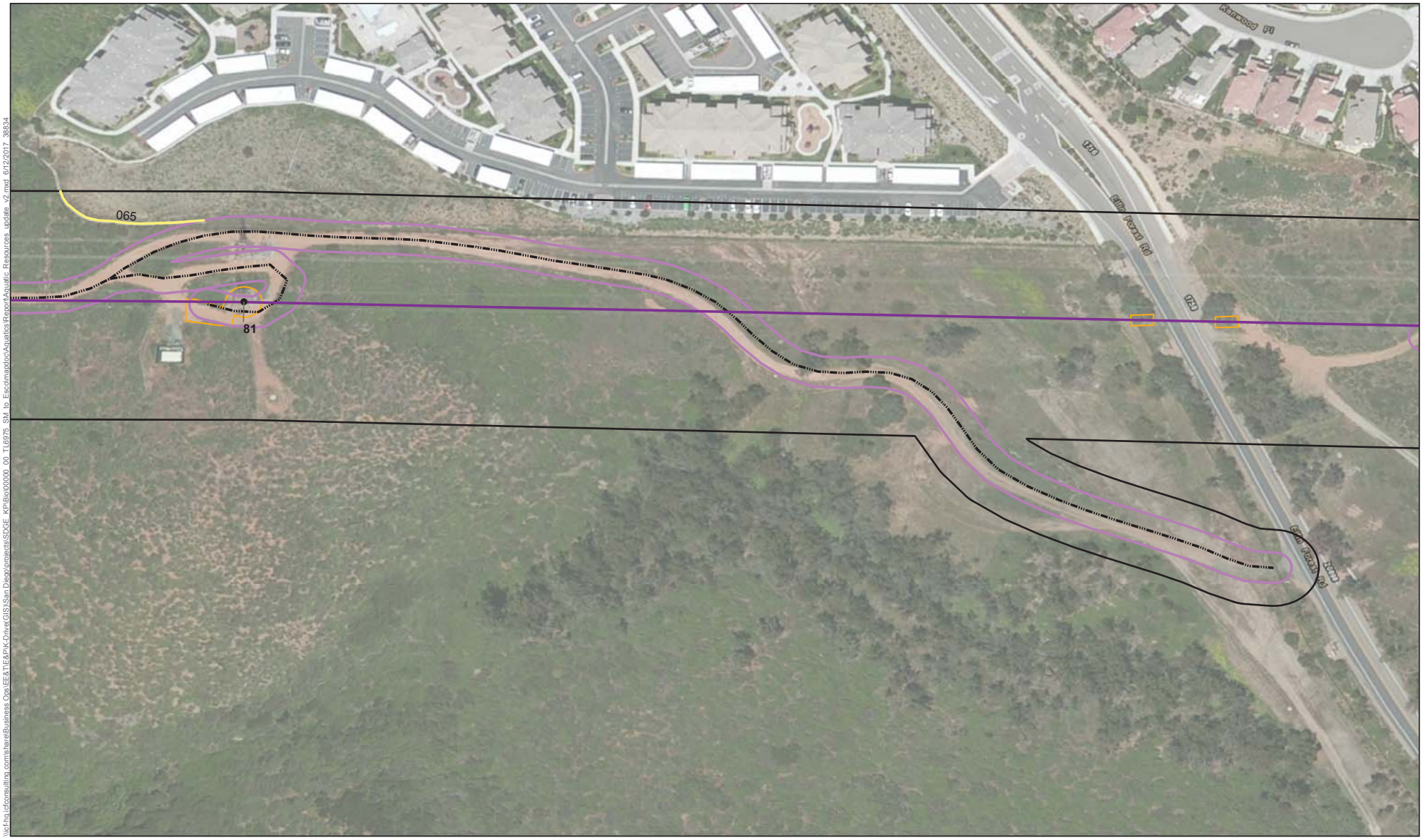
Access Roads-40ft Buffer

N

0 65 130

Feet

Figure 6b-26
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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Non-Jurisdictional Features
- Concrete V-Ditch (BMP)

Project Components
- Survey Area
- Temporary Impacts
- Poles
- Transmission Line
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-27
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Project Components
Access Roads-40ft Buffer
Survey Area
Access Roads

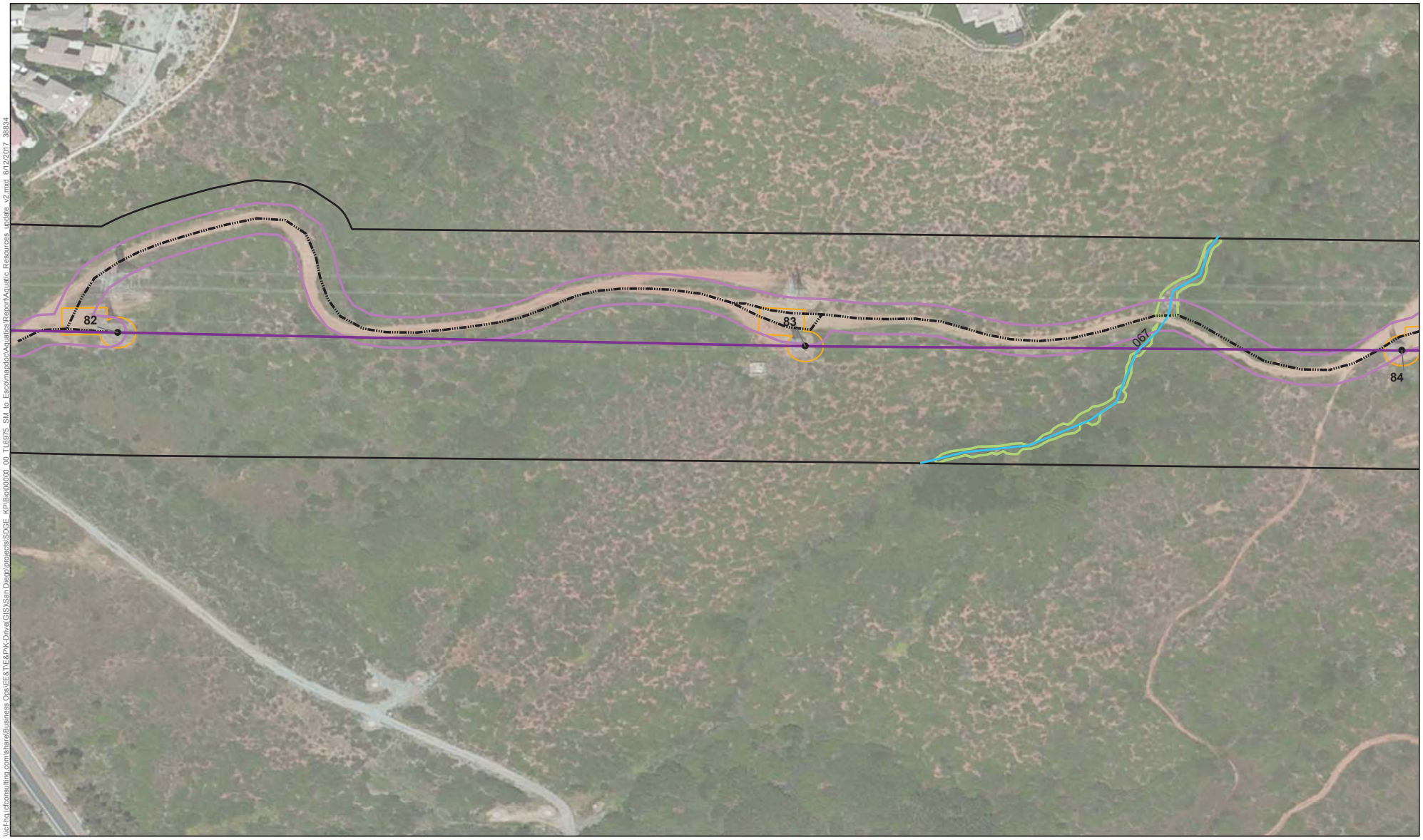
N
0 65 130
Feet

Figure 6b-28
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

Project Components
Access Roads-40ft Buffer
Survey Area
Access Roads

N
0 65 130
Feet

Figure 6b-29
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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Jurisdictional Waters (USACE/RWQCB/CDFW)
- Ephemeral stream
- CDFW Only Riparian

Project Components
- Survey Area
- Temporary Impacts
- Poles
- Transmission Line
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-30
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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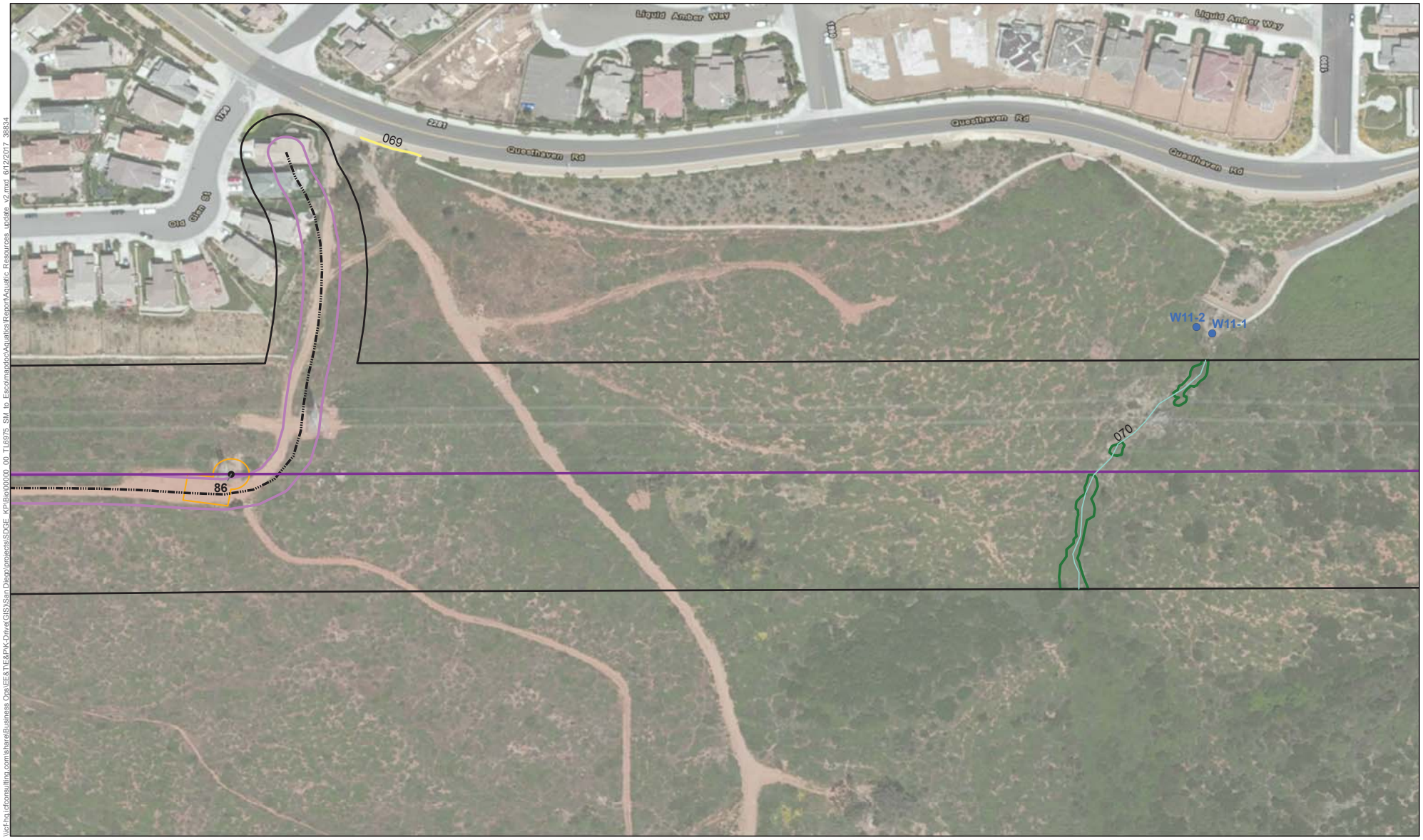
Non-Jurisdictional Features
- Concrete V-Ditch (BMP)

Project Components
- Survey Area
- Temporary Impacts
- Poles
- Transmission Line
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-31
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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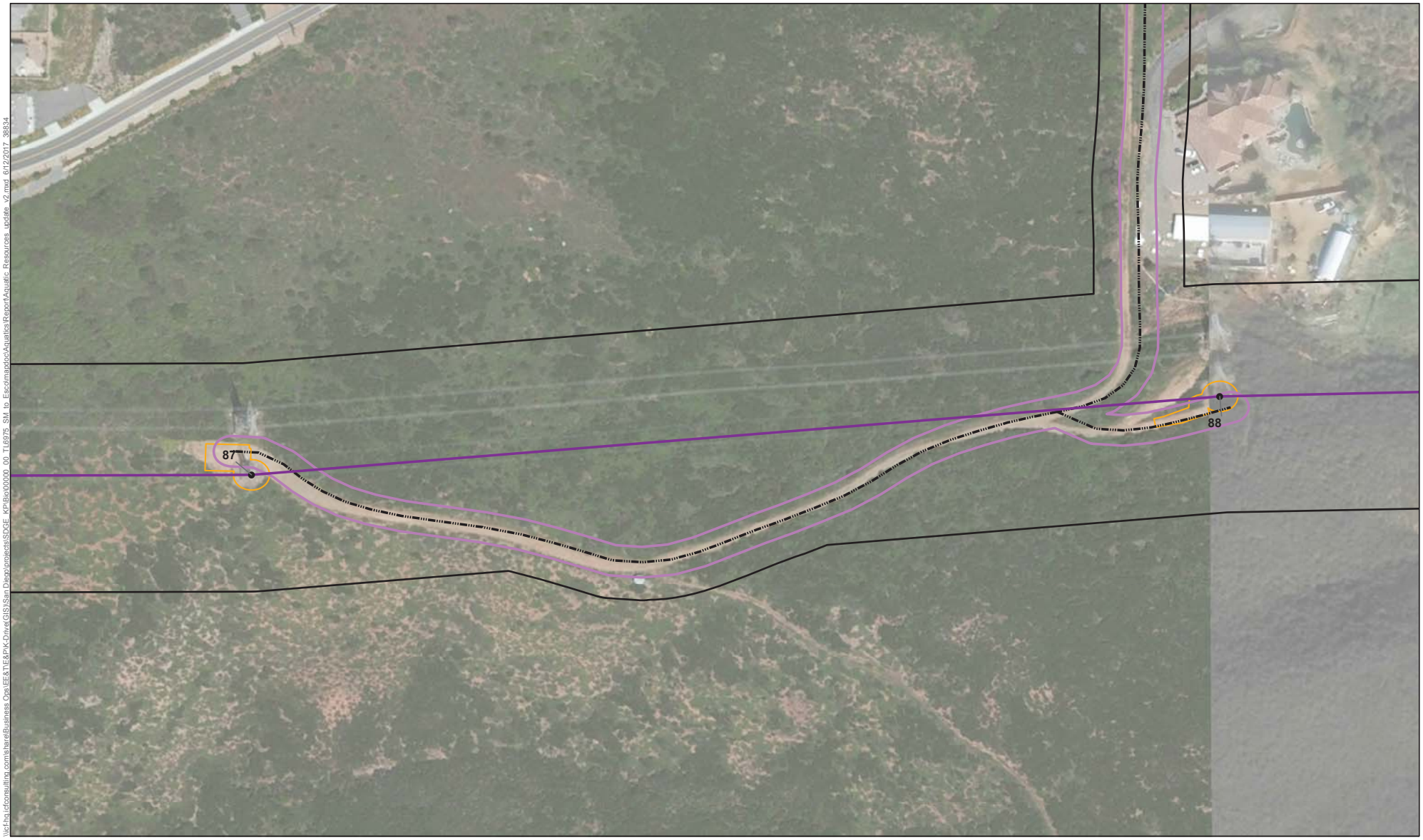
- Wetland Data Points
- **Non-Jurisdictional Features**
- Concrete V-Ditch (BMP)
- **Jurisdictional Waters (USACE/RWQCB/CDFW)**
- Perennial stream
- Wetland/Riparian
- **Project Components**
- Survey Area
- Temporary Impacts
- Poles
- Transmission Line
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-32
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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Project Components
- Survey Area
- Temporary Impacts
- Poles
- Transmission Line
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-33
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

Figure 6b-34
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Culverts

Jurisdictional Waters (USACE/RWQCB/CDFW)

Ephemeral stream

Project Components

Survey Area

Temporary Impacts

Poles

Transmission Line

Access Roads

Access Roads-40ft Buffer

N

0 65 130

Feet

Figure 6b-35
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

Culverts

Jurisdictional Waters (USACE/RWQCB/CDFW)

Ephemeral stream

Project Components

Survey Area

Transmission Line

Access Roads

Access Roads-40ft Buffer

N

0 65 130

Feet

Figure 6b-36
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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⊕ Culverts

Jurisdictional Waters (USACE/RWQCB/CDFW)

Ephemeral stream

Project Components

Access Roads-40ft Buffer

Survey Area

Access Roads

N

0 65 130

Feet

Figure 6b-37
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Culverts
Jurisdictional Waters (USACE/RWQCB/CDFW)
Ephemeral stream
Erosional rill
Project Components
Survey Area
Temporary Impacts
Poles
Transmission Line
Access Roads
Access Roads-40ft Buffer

N
0 65 130
Feet

Figure 6b-38
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Figure 6b-39
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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ICF

⊕ Culverts

Jurisdictional Waters (USACE/RWQCB/CDFW)

Ephemeral stream

Project Components

Access Roads-40ft Buffer

Survey Area

Access Roads

N

0 65 130

Feet

Figure 6b-40
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Jurisdictional Waters (USACE/RWQCB/CDFW)

- Ephemeral stream
- Erosional rill

Project Components

- Survey Area
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130

Feet

Figure 6b-41
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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⊕ Culverts

Jurisdictional Waters (USACE/RWQCB/CDFW)

Ephemeral stream

Project Components

Survey Area

Temporary Impacts

Poles

Transmission Line

Access Roads

Access Roads-40ft Buffer

N

0 65 130

Feet

Figure 6b-42
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Jurisdictional Waters (USACE/RWQCB/CDFW)
Swale

Project Components
Survey Area
Temporary Impacts
Poles
Transmission Line
Access Roads
Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-43
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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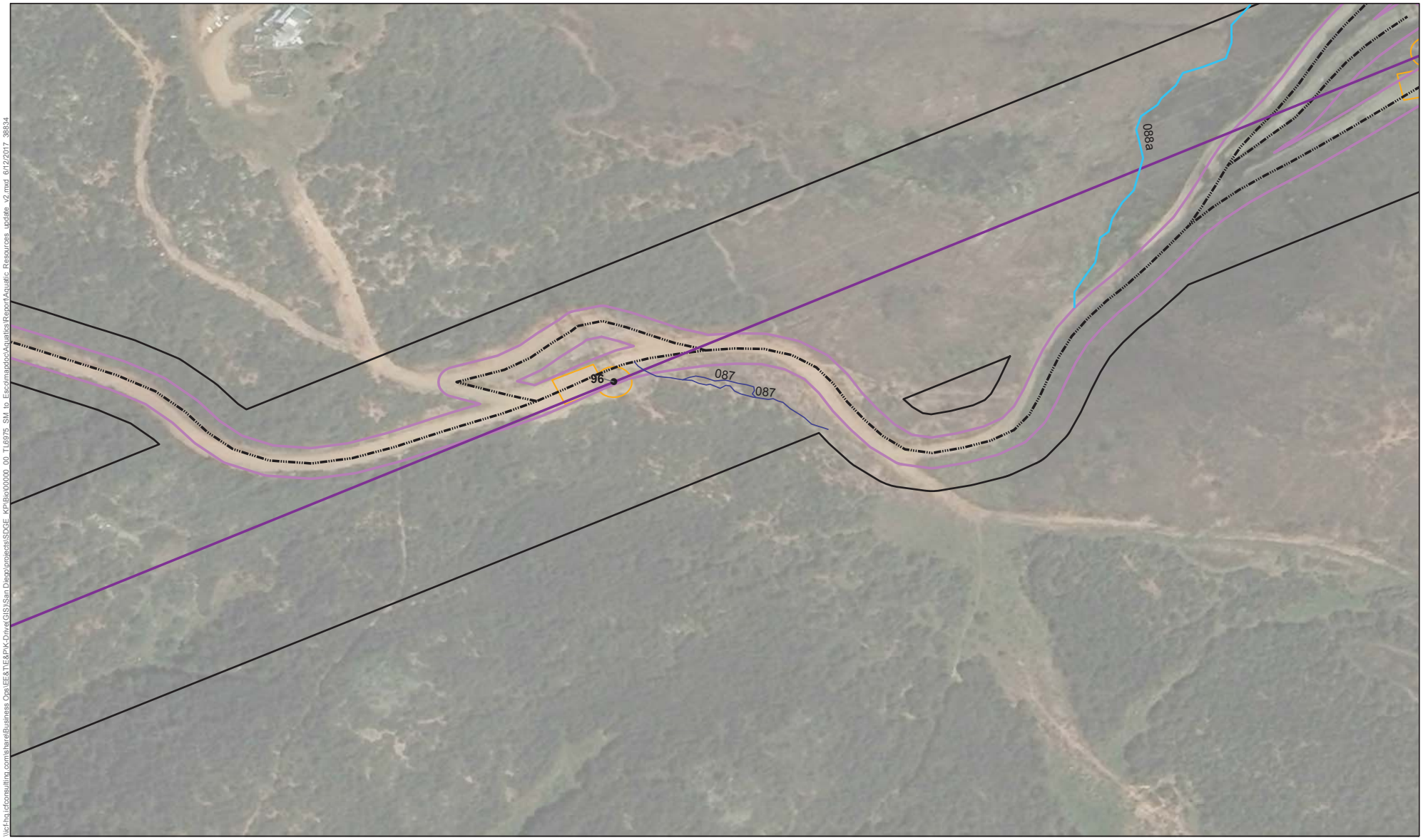
Jurisdictional Waters (USACE/RWQCB/CDFW)
- Ephemeral stream

Project Components
- Survey Area
- Temporary Impacts
- Poles
- Transmission Line
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-44
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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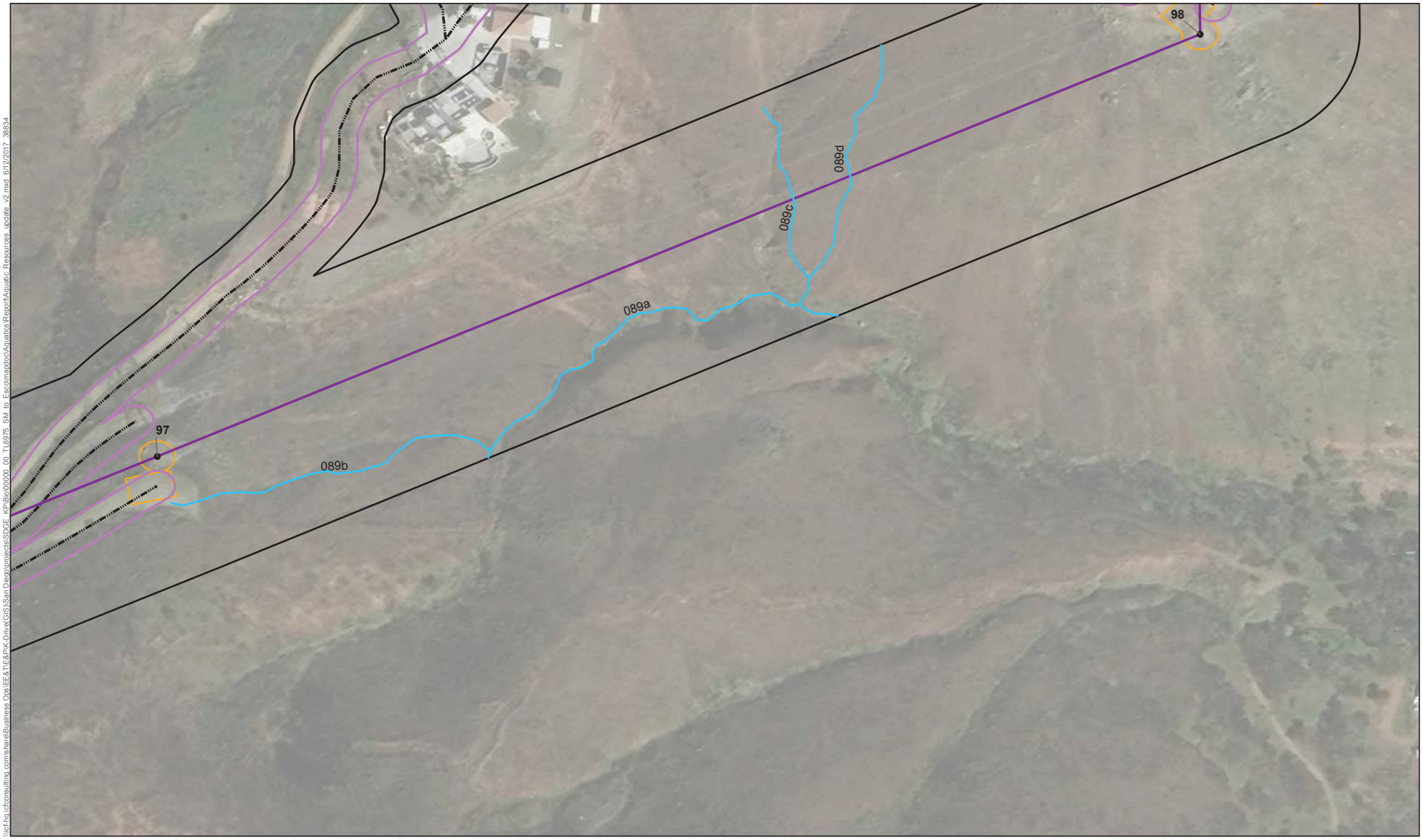
Jurisdictional Waters (USACE/RWQCB/CDFW)
- Ephemeral stream
- Erosional rill

Project Components
- Survey Area
- Temporary Impacts
- Poles
- Transmission Line
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-45
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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Jurisdictional Waters (USACE/RWQCB/CDFW)
- Ephemeral stream

Project Components
- Survey Area
- Temporary Impacts
- Poles
- Transmission Line
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-46
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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⊕ Culverts

Jurisdictional Waters (USACE/RWQCB/CDFW)

Ephemeral stream

Wetland/Riparian

CDFW Only Riparian

Project Components

Survey Area

Temporary Impacts

Transmission Line

Access Roads

Access Roads-40ft Buffer

N

0 65 130

Feet

Figure 6b-47
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

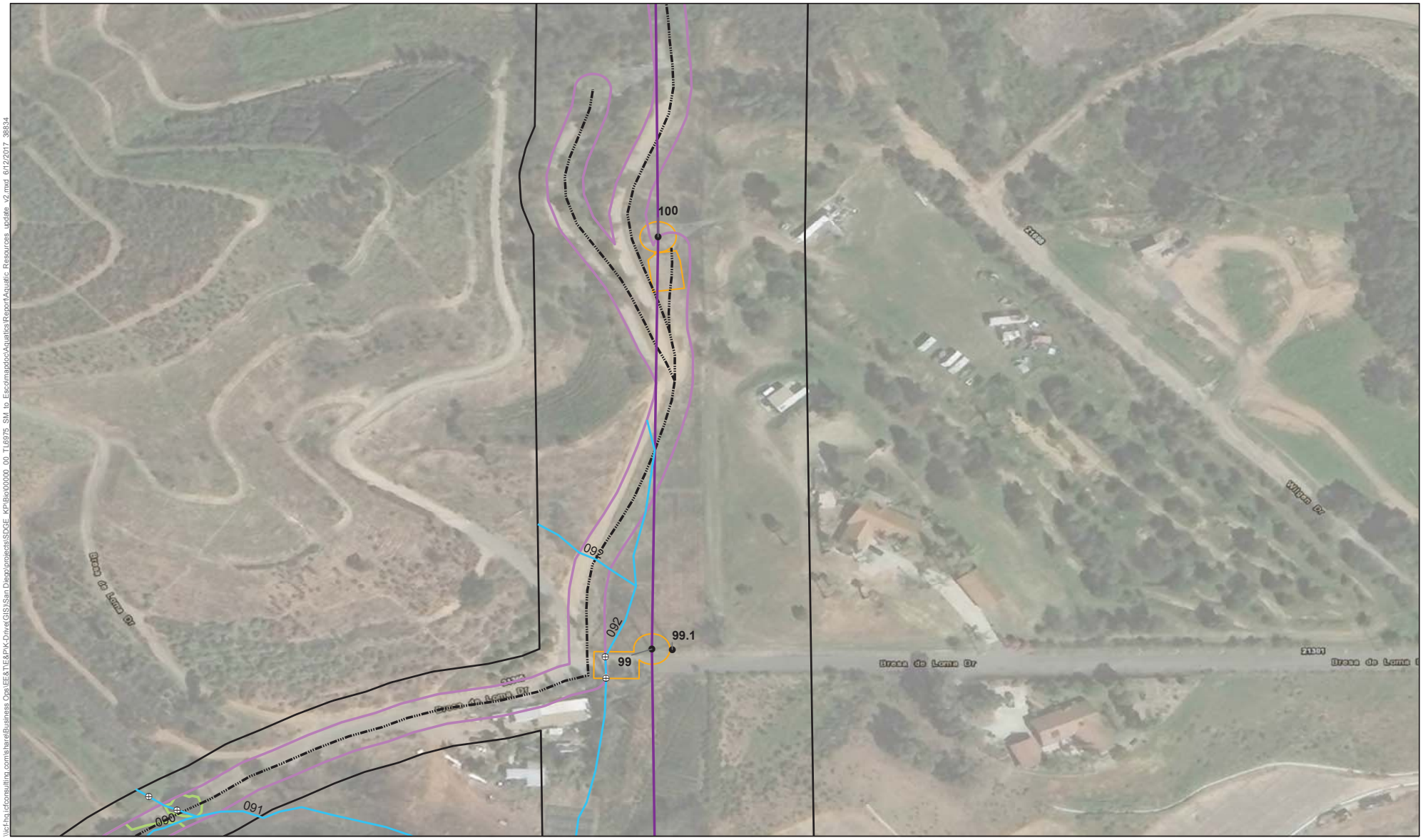
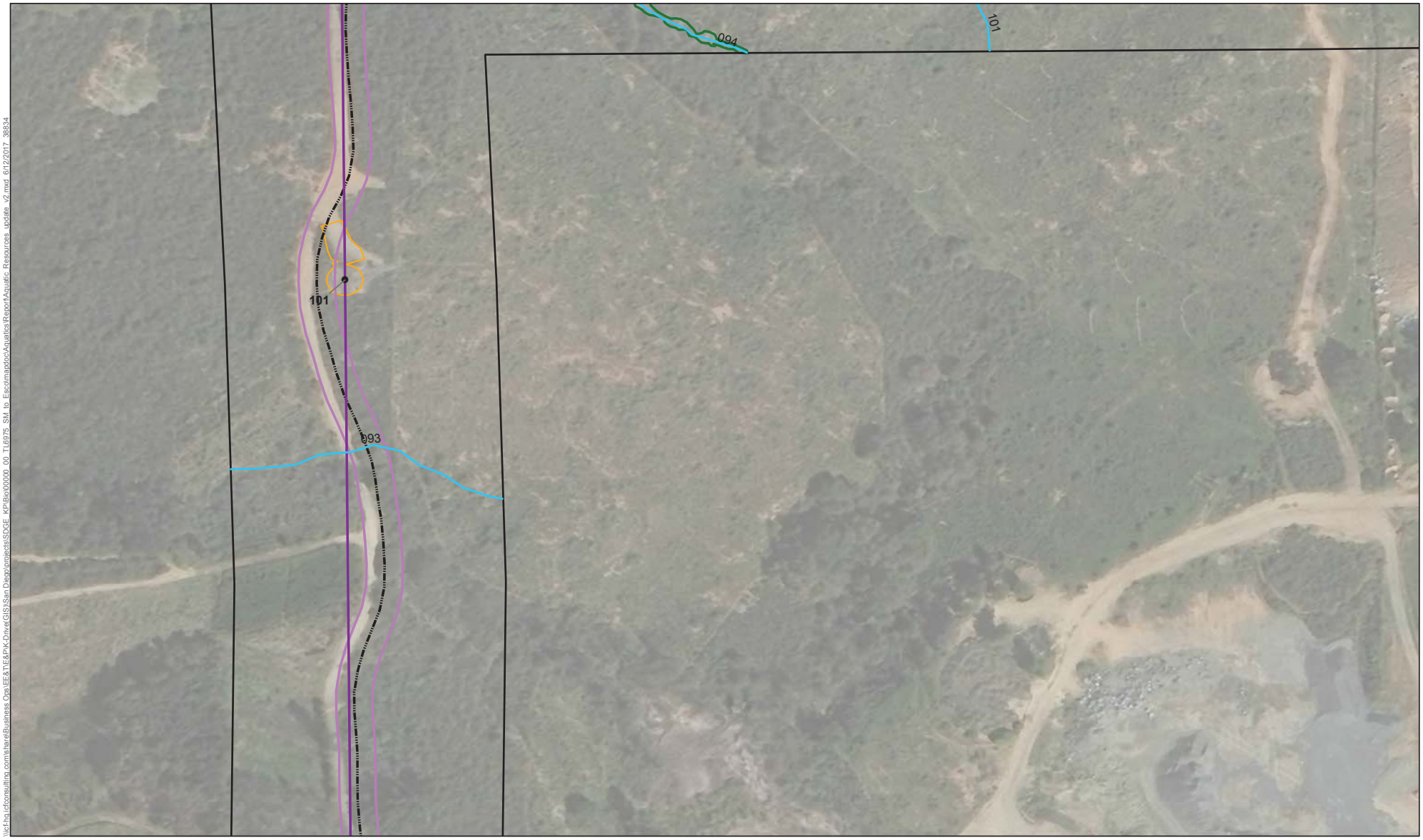


Figure 6b-48
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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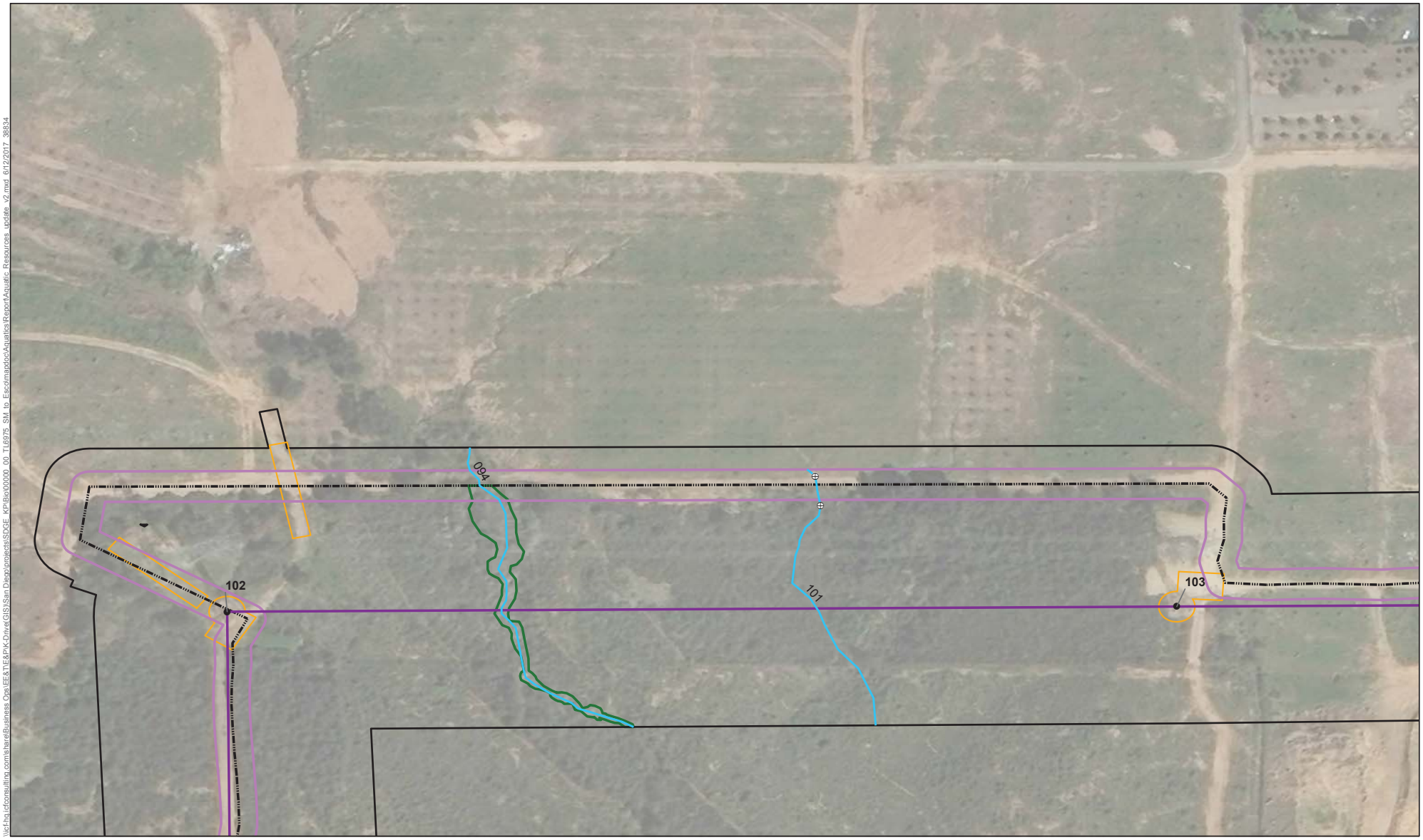
Jurisdictional Waters (USACE/RWQCB/CDFW)
- Ephemeral stream
- Wetland/Riparian

Project Components
- Survey Area
- Temporary Impacts
- Poles
- Transmission Line
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-49
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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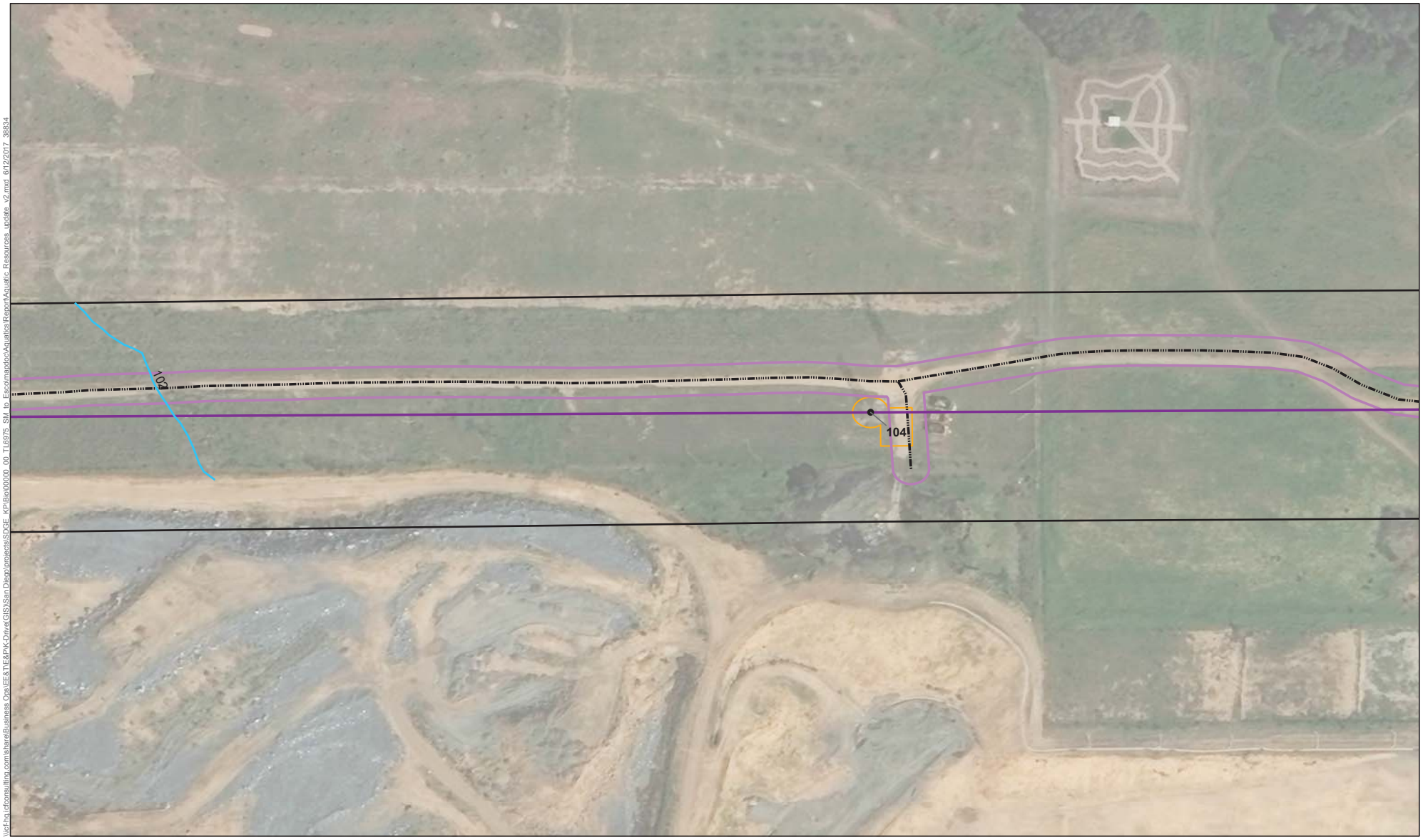
Culverts
Jurisdictional Waters (USACE/RWQCB/CDFW)
Ephemeral stream
Wetland/Riparian
Project Components
Survey Area
Temporary Impacts
Poles
Transmission Line
Access Roads
Access Roads-40ft Buffer

N
0 65 130
Feet

Figure 6b-50
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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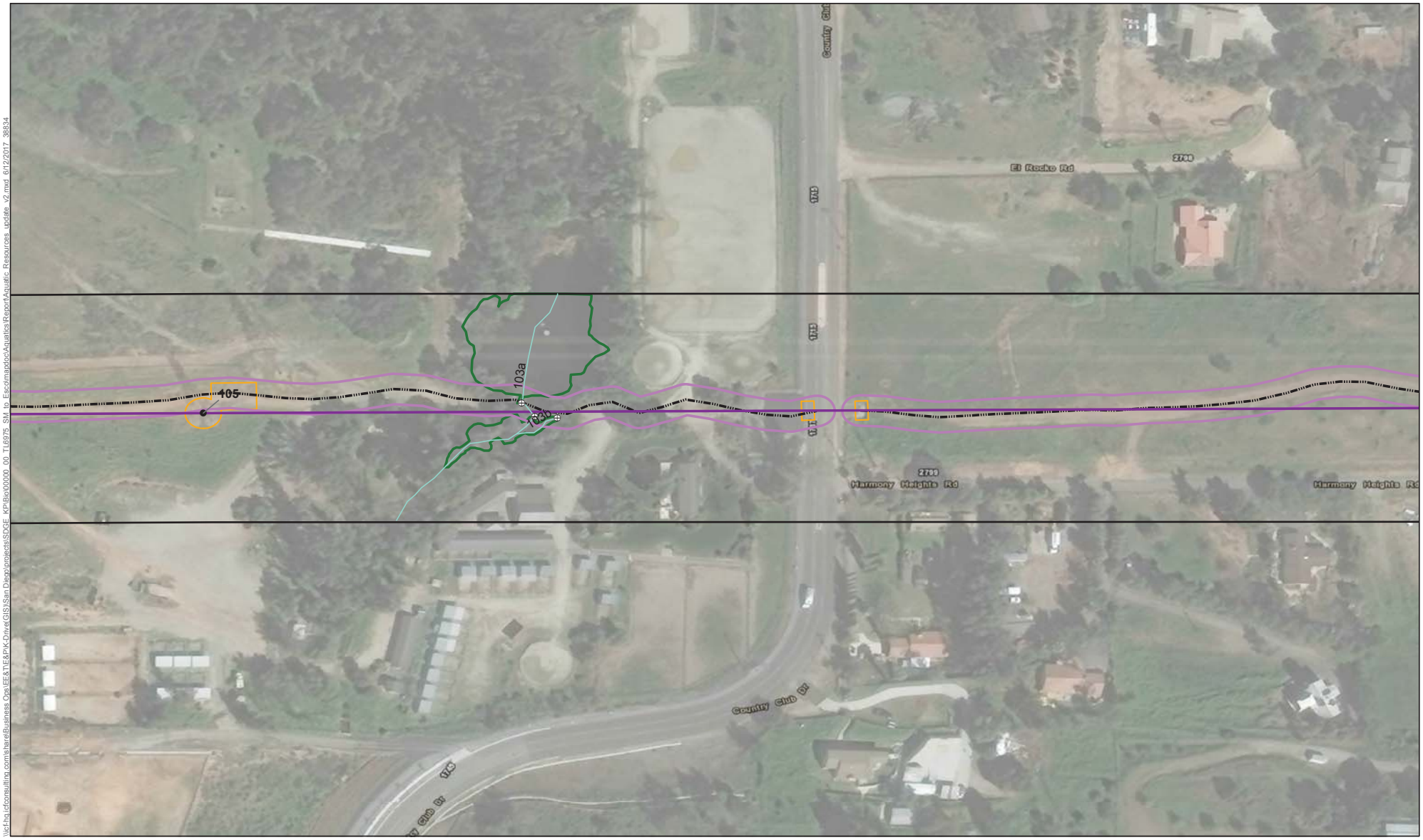
Jurisdictional Waters (USACE/RWQCB/CDFW)
- Ephemeral stream

Project Components
- Survey Area
- Temporary Impacts
- Poles
- Transmission Line
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-51
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



Culverts
Jurisdictional Waters (USACE/RWQCB/CDFW)
Perennial stream
Wetland/Riparian
Project Components
Survey Area
Temporary Impacts
Poles
Transmission Line
Access Roads
Access Roads-40ft Buffer

N
0 65 130
Feet

Figure 6b-52
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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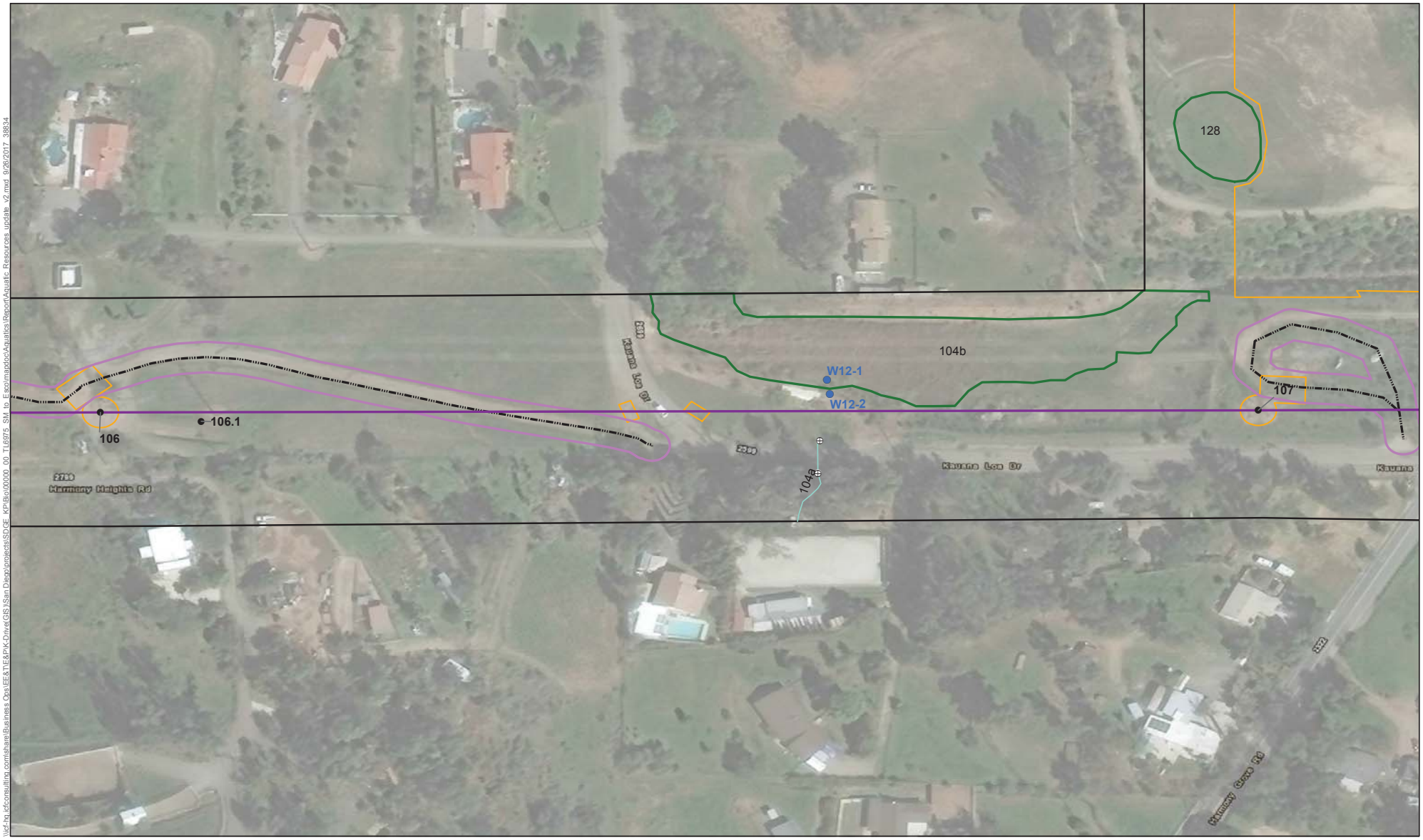

Culverts
Wetland Data Points
Jurisdictional Waters (USACE/RWQCB/CDFW)
Perennial stream
Wetland/Riparian
Project Components
Survey Area
Temporary Impacts
Poles
Transmission Line
Access Roads
Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-53
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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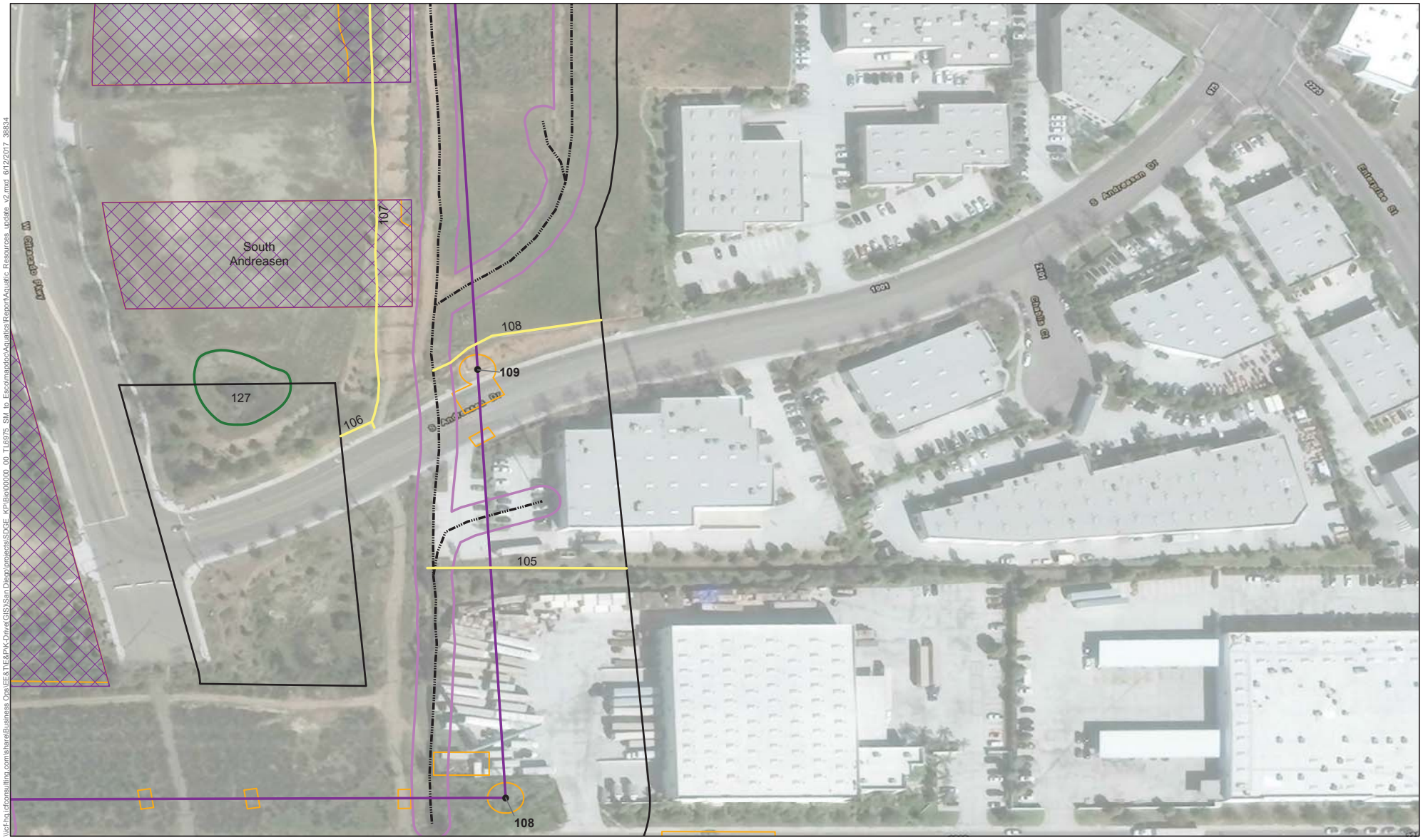
Project Components

- Survey Area
- Temporary Impacts
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-54
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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Non-Jurisdictional Features
- Concrete V-Ditch (BMP)
- Wetland/Riparian

Project Components
- Survey Area
- Staging Yard
- Temporary Impacts
- Poles
- Transmission Line
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-55
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Project Components

Temporary Impacts

Survey Area

Staging Yard

N

0 65 130

Feet

Figure 6b-56
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

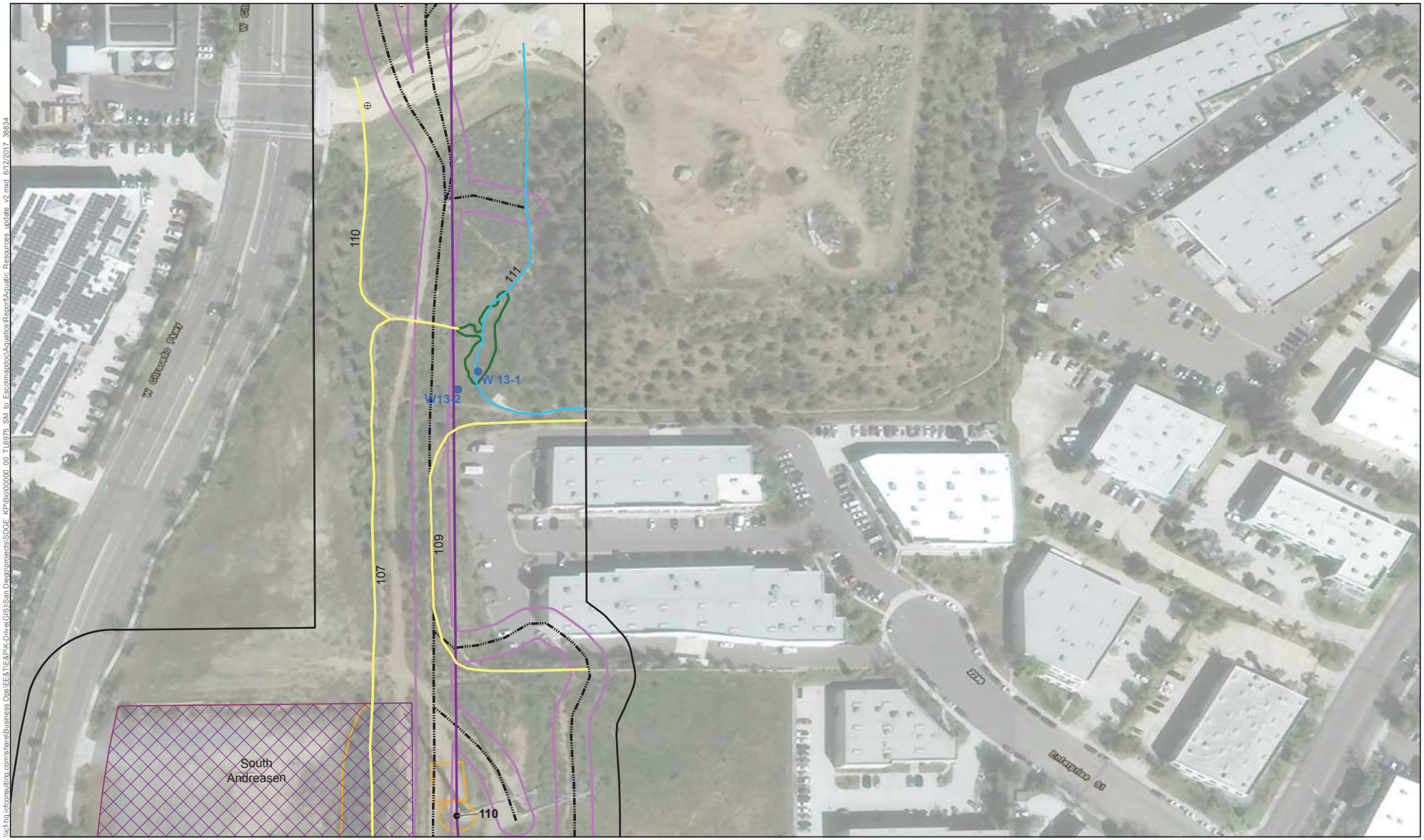
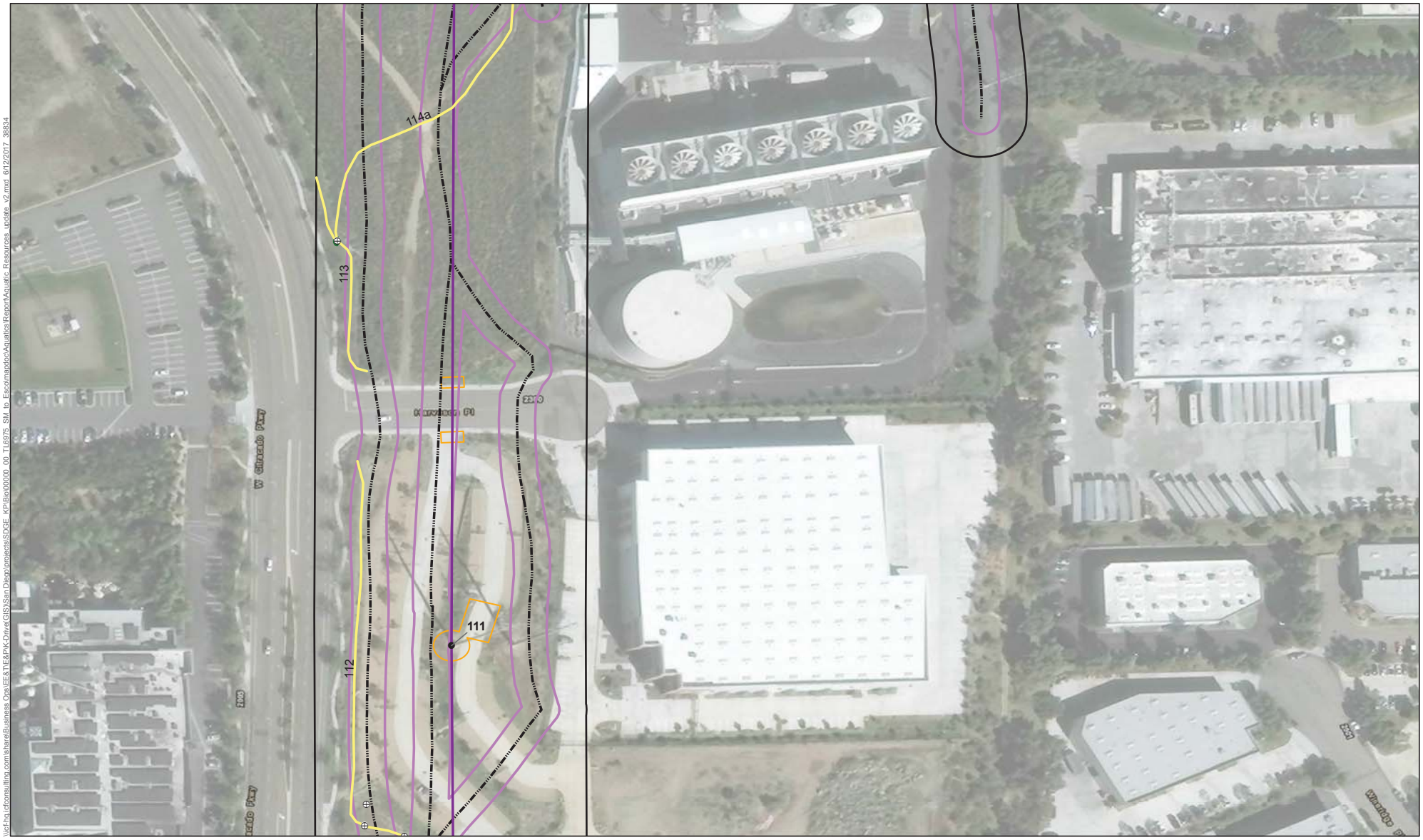


Figure 6b-57
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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Culverts

Non-Jurisdictional Features

Concrete V-Ditch (BMP)

Wetland/Riparian

Project Components

Survey Area

Temporary Impacts

Poles

Transmission Line

Access Roads

Access Roads-40ft Buffer

N

0 65 130

Feet

Figure 6b-58
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

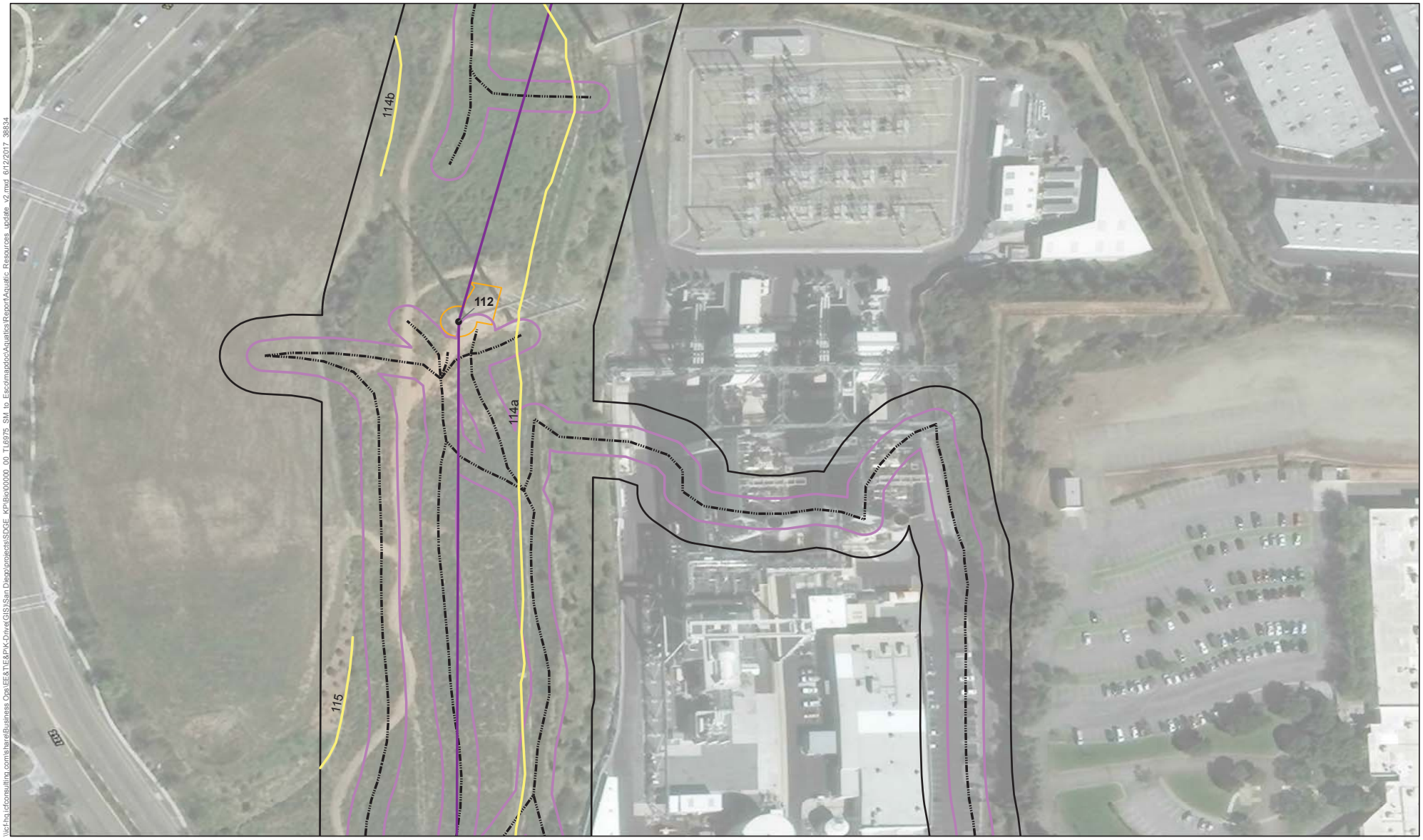
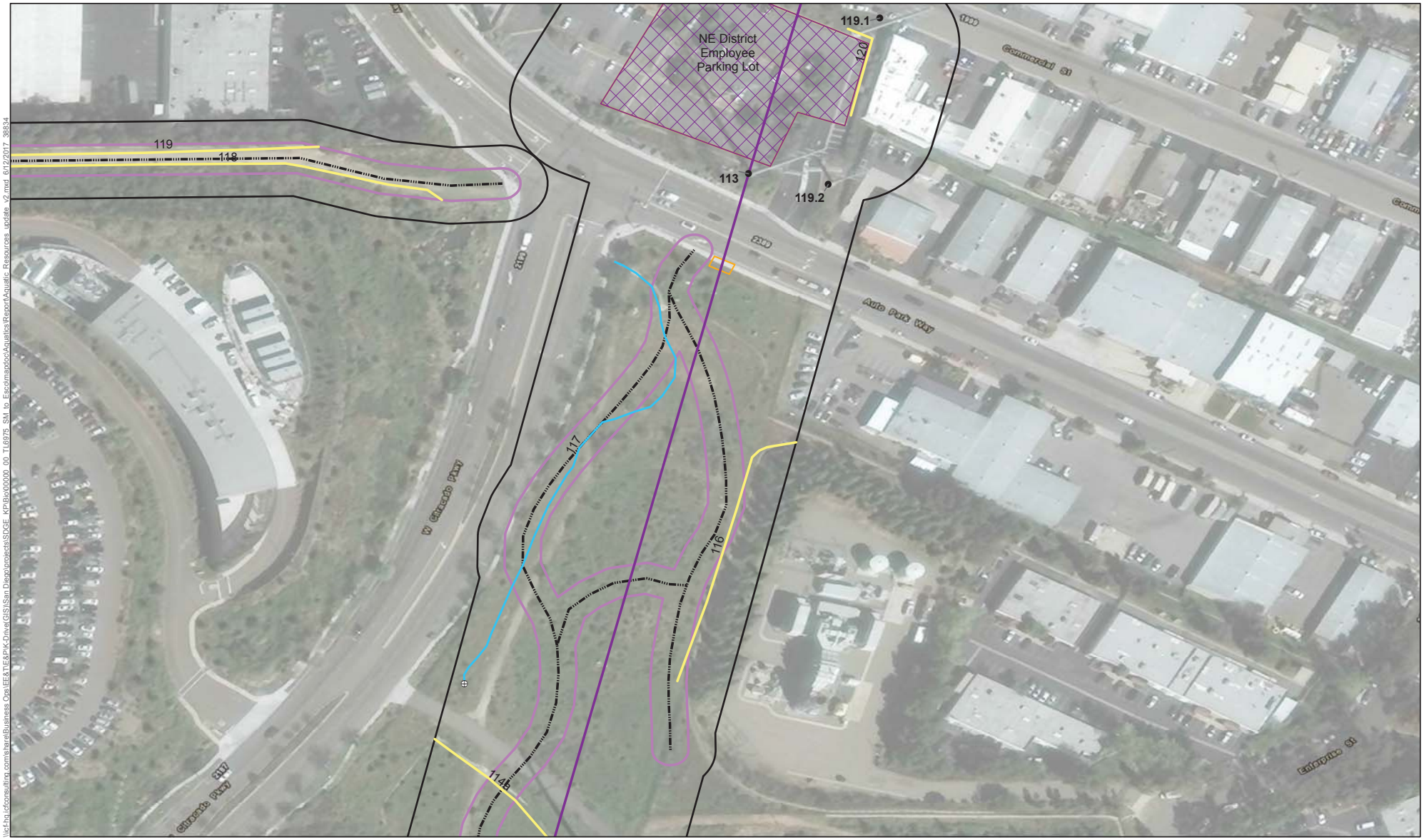


Figure 6b-59
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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ICF

⊕ Culverts

Non-Jurisdictional Features

Concrete V-Ditch (BMP)

Jurisdictional Waters (USACE/RWQCB/CDFW)

Ephemeral stream

Project Components

Survey Area

Staging Yard

Temporary Impacts

Poles

Transmission Line

Access Roads

Access Roads-40ft Buffer

N

0 65 130

Feet

Figure 6b-60
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Non-Jurisdictional Features
Concrete V-Ditch (BMP)

Project Components
Survey Area
Access Roads
Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-61
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

Figure 6b-62
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Access Roads

Access Roads-40ft Buffer

N

0 65 130

Feet

Figure 6b-63
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Access Roads

Access Roads-40ft Buffer

N

0 65 130

Feet

Figure 6b-64
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Access Roads

Access Roads-40ft Buffer

N

0 65 130

Feet

Figure 6b-65
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

Figure 6b-66
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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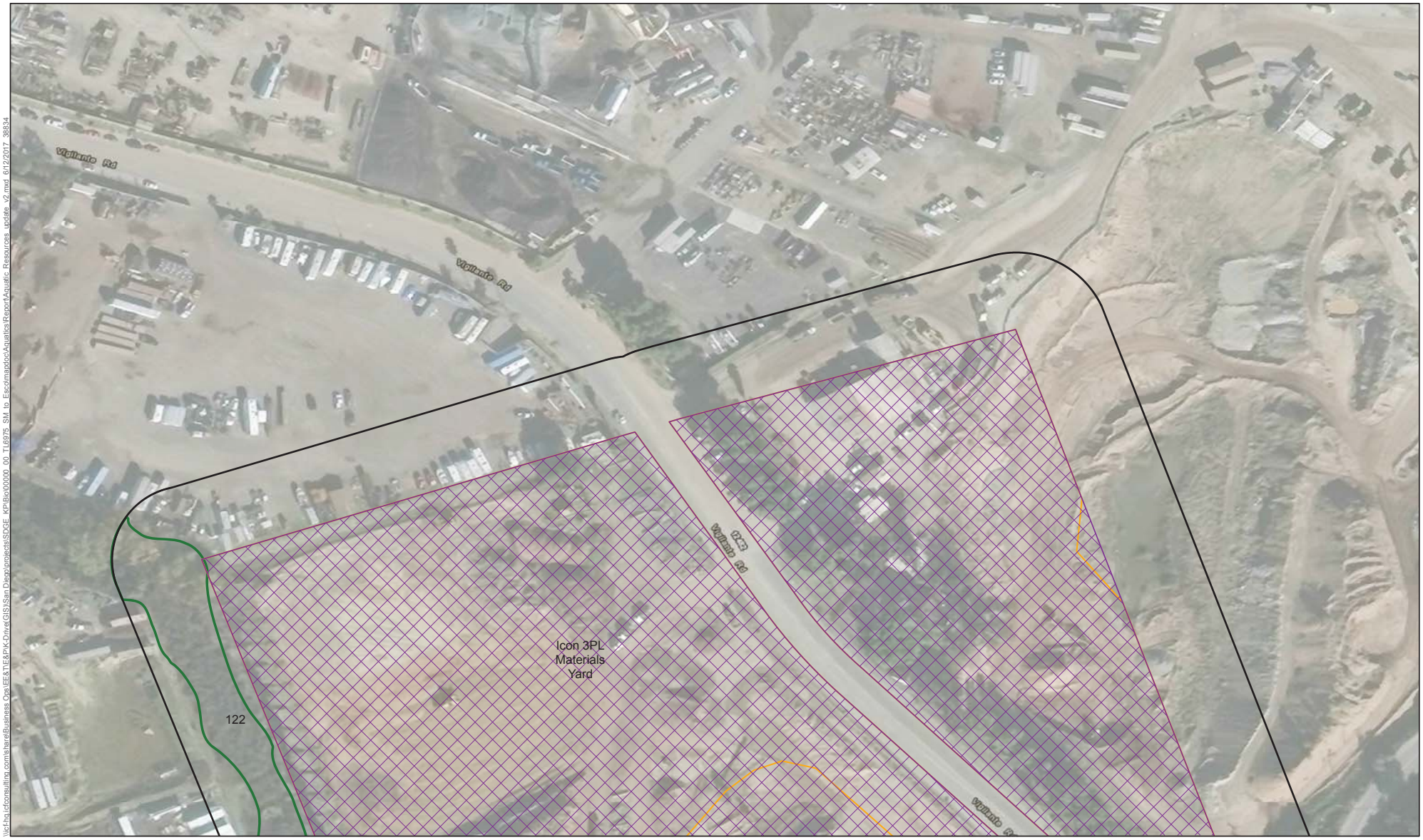
Project Components
- Temporary Impacts
- Survey Area
- Staging Yard

N

0 65 130
Feet

Figure 6b-67
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



Wetland/Riparian
Staging Yard
Project Components
Temporary Impacts
Survey Area

N

0 65 130
Feet

Figure 6b-68
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Wetland/Riparian
Staging Yard
Project Components
Temporary Impacts
Survey Area

N

0 65 130
Feet

Figure 6b-69
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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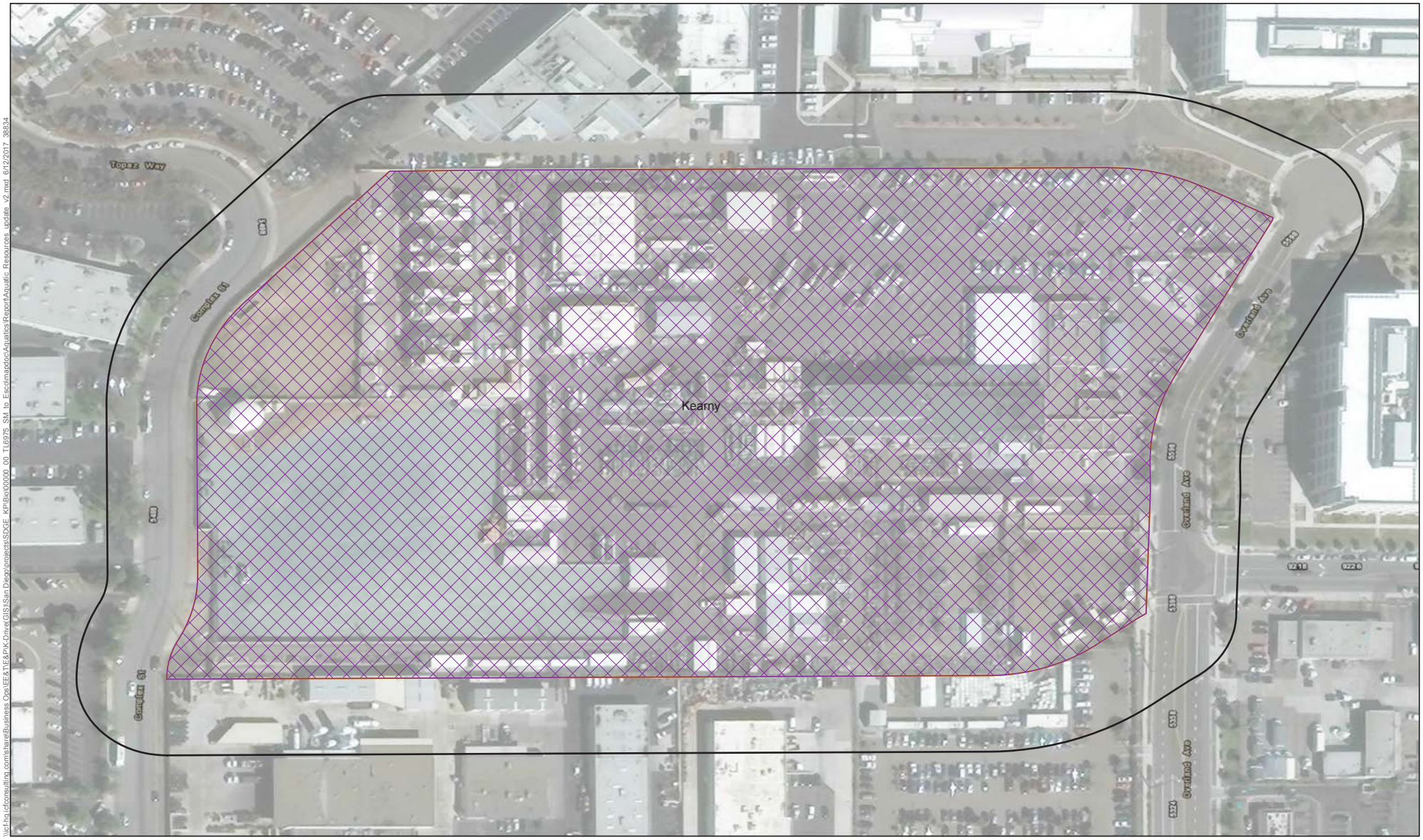

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Project Components
Temporary Impacts
Survey Area
Staging Yard

N

0 65 130
Feet

Figure 6b-70
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Jurisdictional Waters (USACE/RWQCB/CDFW)

- Swale
- Wetland/Riparian

Project Components

- Survey Area
- Temporary Impacts

N

0 65 130
Feet

Figure 6b-71
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

Project Components
- Temporary Impacts
- Survey Area
- Staging Yard

N

0 65 130
Feet

Figure 6b-72
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Wetland Data Points
Non-Jurisdictional Features
Concrete V-Ditch (BMP)
Jurisdictional Waters (USACE/RWQCB/CDFW)
Perennial stream
Wetland/Riparian
Project Components
Survey Area
Project Components
Permanent Impacts
Temporary Impacts
Poles
Transmission Line

N
0 65 130
Feet

Figure 6b-02
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Figure 6b-03
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

Culverts
Wetland Data Points
Jurisdictional Waters (USACE/RWQCB/CDFW)
Ephemeral stream
Concrete Lined Ephemeral Stream
Intermittent stream
Perennial stream
Swale
Wetland/Riparian
Project Components
Survey Area
Project Components
Permanent Impacts
Temporary Impacts
Poles
Transmission Line
Access Roads
Access Roads-40ft Buffer

N
0 65 130
Feet

Figure 6b-04
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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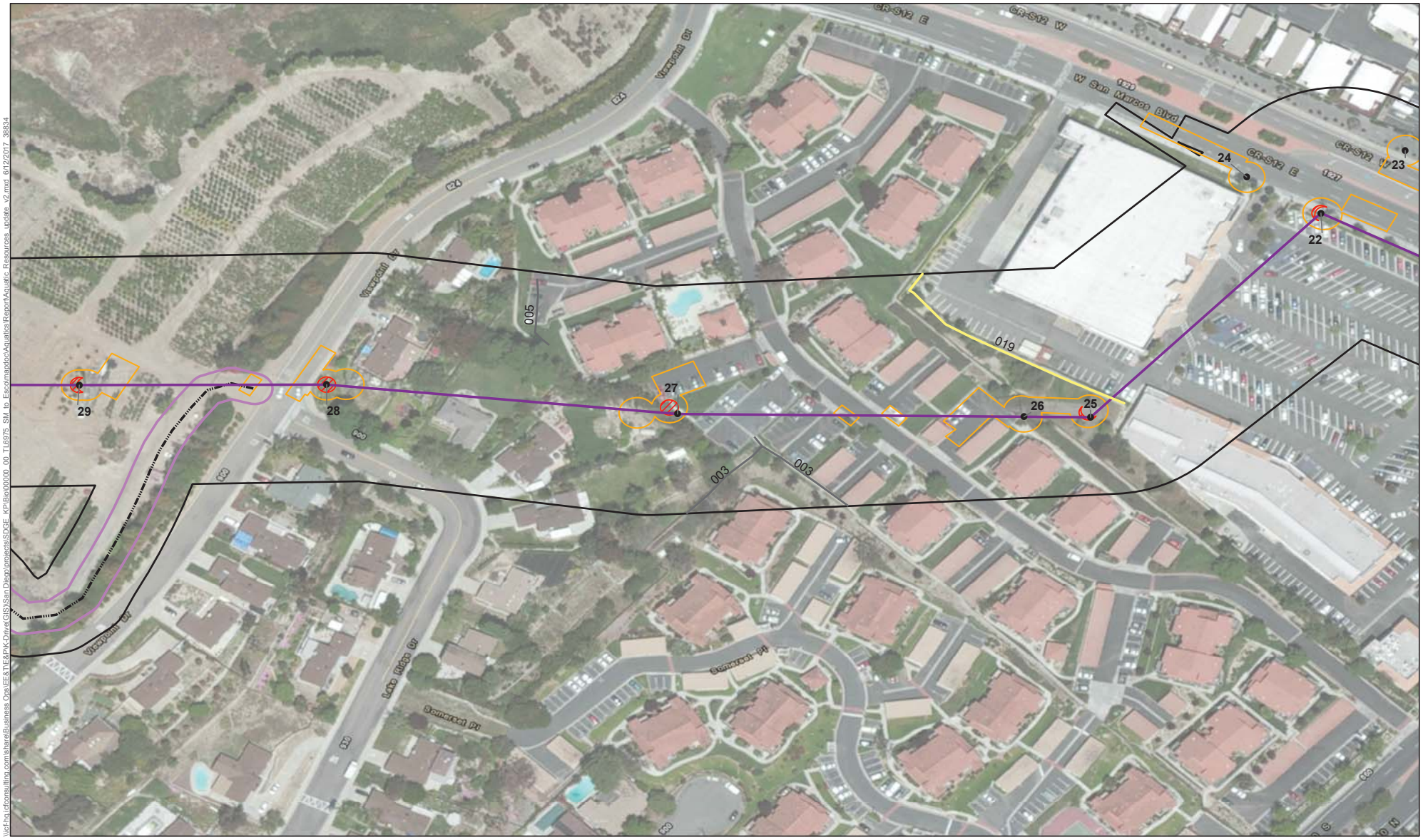

Non-Jurisdictional Features
- Concrete V-Ditch (BMP)

Jurisdictional Waters (USACE/RWQCB/CDFW)
- Concrete Lined Ephemeral Stream

Project Components
- Survey Area
- Permanent Impacts
- Temporary Impacts
- Poles
- Transmission Line
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-05
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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⊕ Culverts

Non-Jurisdictional Features

Concrete V-Ditch (BMP)

Jurisdictional Waters (USACE/RWQCB/CDFW)

Ephemeral stream

Project Components

Survey Area

Access Roads

Access Roads-40ft Buffer

N

0 65 130

Feet

Figure 6b-07
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

Non-Jurisdictional Features
- Concrete V-Ditch (BMP)

Project Components
- Survey Area
- Staging Yard

Project Components
- Permanent Impacts
- Temporary Impacts

- Poles
- Transmission Line

N

0 65 130
Feet

Figure 6b-08
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

Figure 6b-10
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

023a
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016b
016a
022b
022a
025a
024b
025a
024a
024a
024a
025c
025b
025d
White Sands Dr
Sand Dollar Way
San Island Pl
Goya Pl
2100
2120
2140
2160
2180
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2880

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Culverts

Non-Jurisdictional Features

Concrete V-Ditch (BMP)

Project Components

Survey Area

Project Components

Permanent Impacts

Temporary Impacts

Poles

Transmission Line

Access Roads

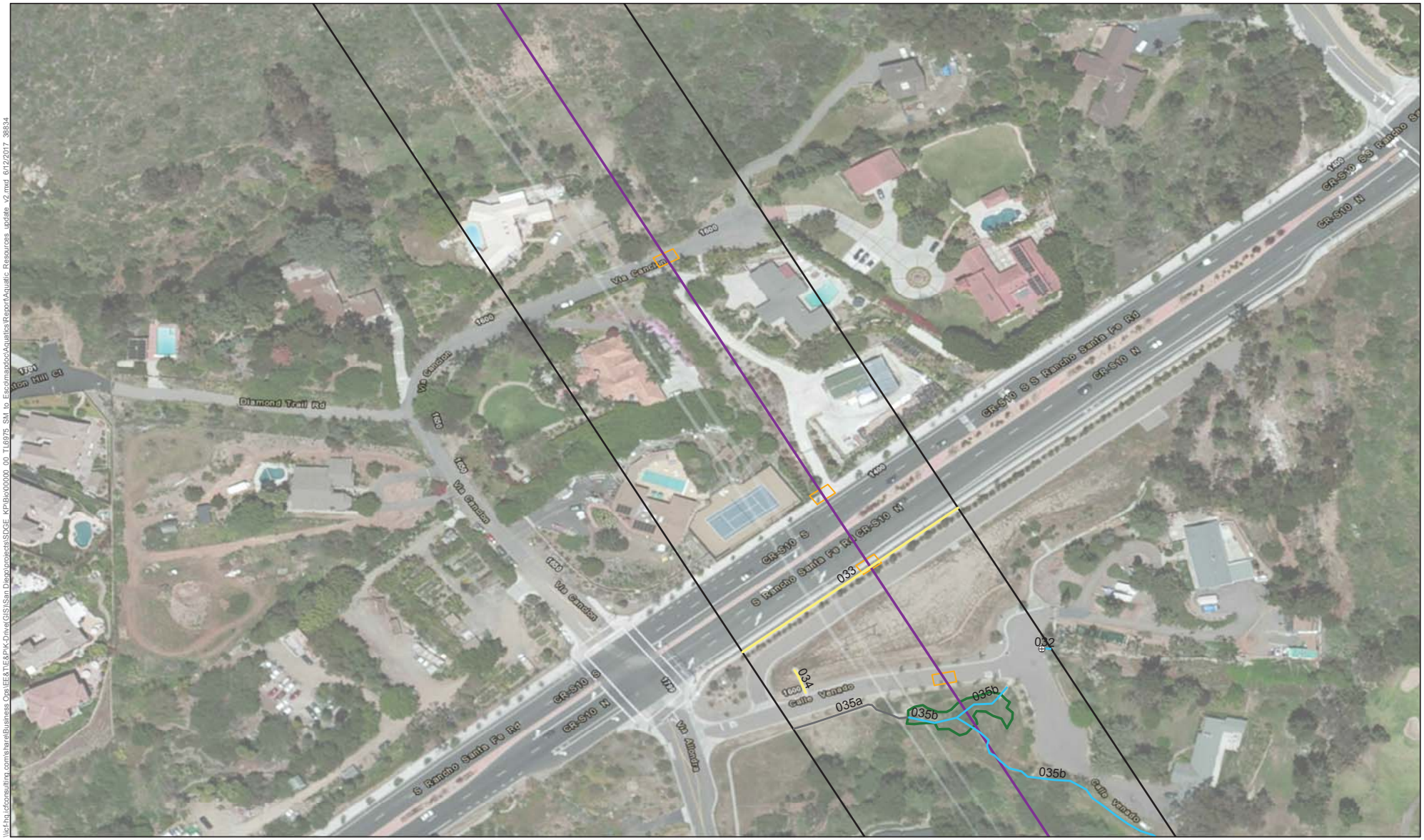
Access Roads-40ft Buffer

N

0 65 130

Feet

Figure 6b-12
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



Culverts

Non-Jurisdictional Features

Concrete V-Ditch (BMP)

Jurisdictional Waters (USACE/RWQCB/CDFW)

Ephemeral stream

Concrete Lined Ephemeral Stream

Wetland/Riparian

Project Components

Survey Area

Temporary Impacts

Transmission Line

N

0 65 130

Feet

Figure 6b-13
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Non-Jurisdictional Features
- Concrete V-Ditch (BMP)

Jurisdictional Waters (USACE/RWQCB/CDFW)
- Ephemeral stream
- Swale

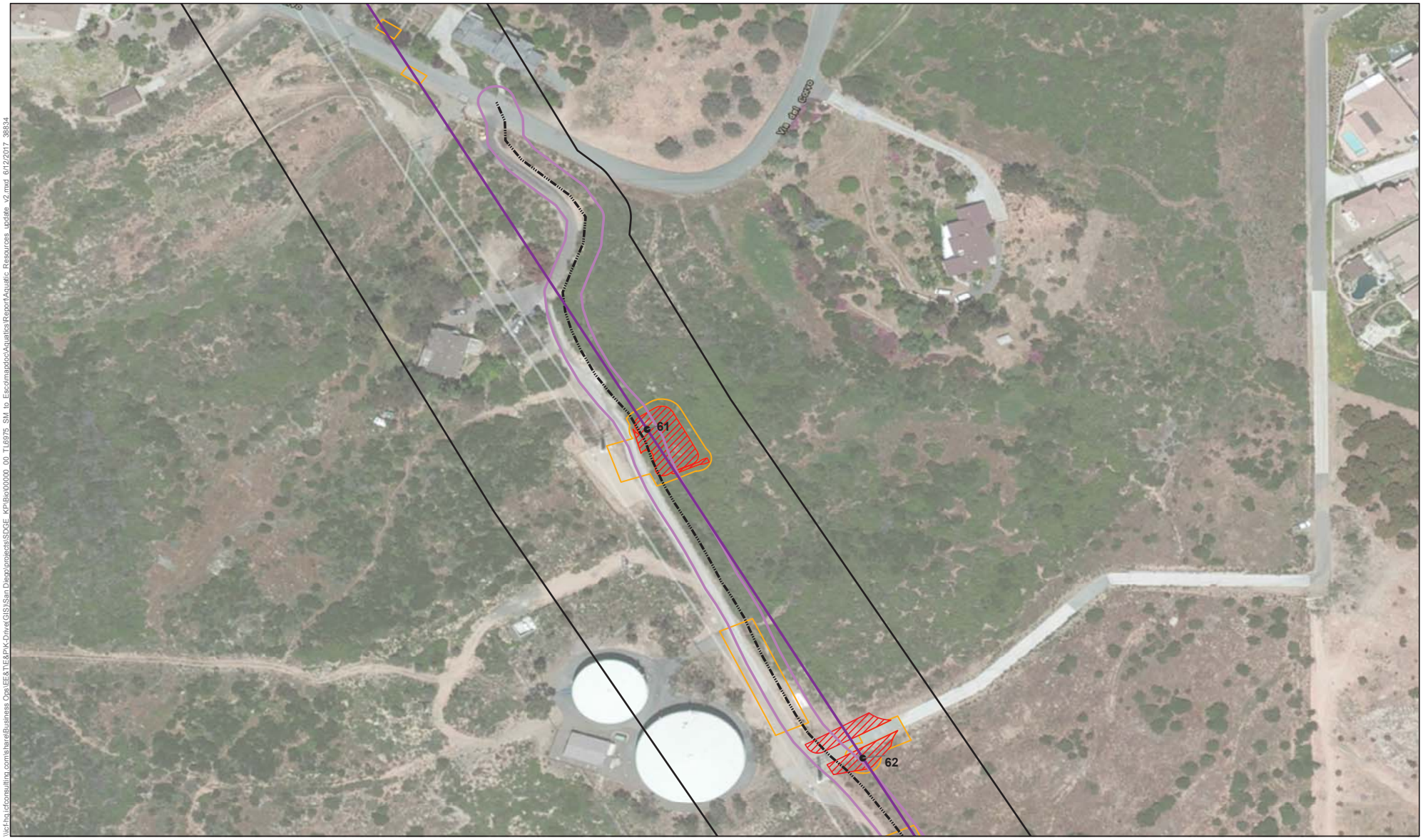
Project Components
- Survey Area

Project Components
- Permanent Impacts
- Temporary Impacts
- Poles
- Transmission Line

N

0 65 130
Feet

Figure 6b-14
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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Project Components
- Survey Area

Project Components
- Permanent Impacts
- Temporary Impacts

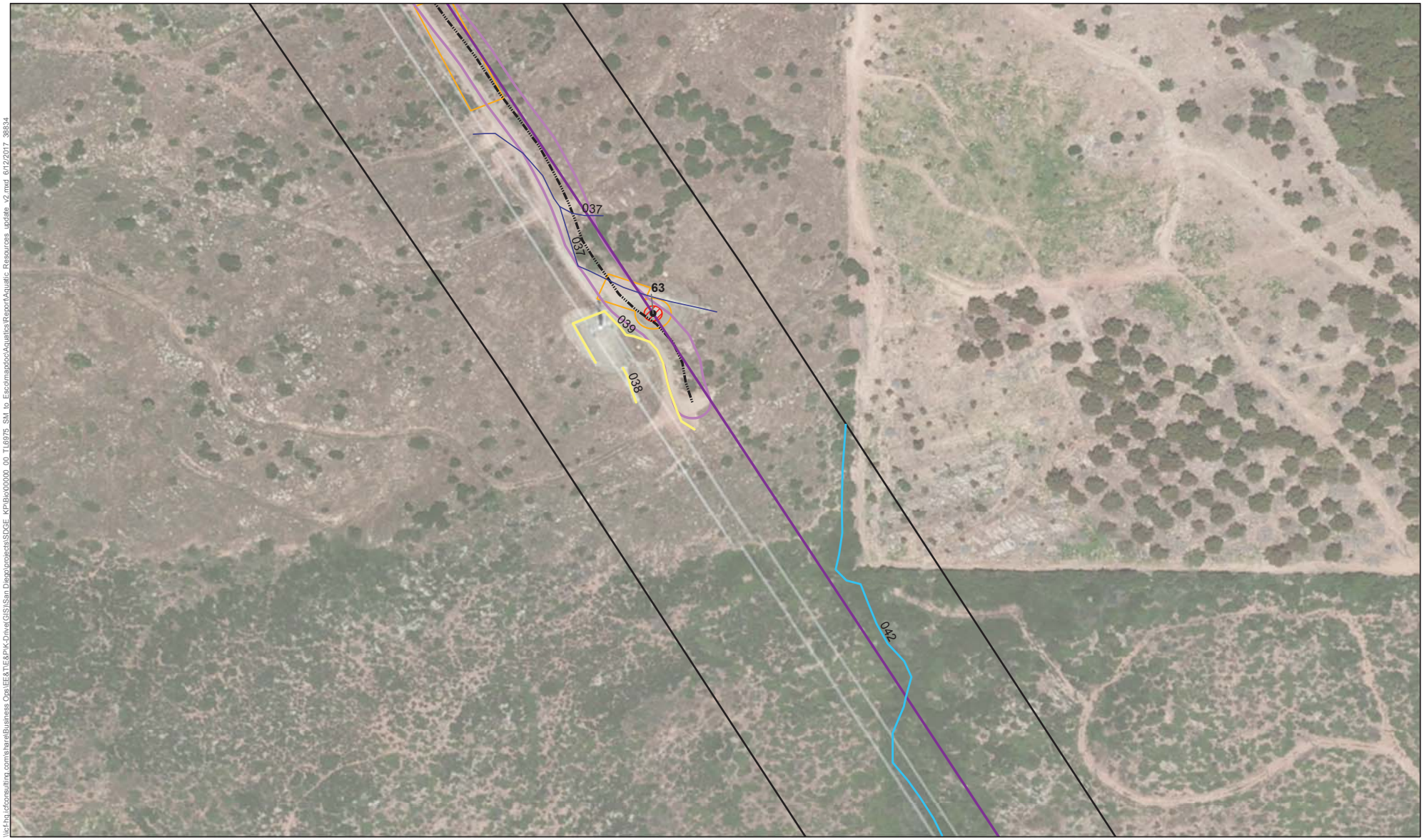
- Poles
- Transmission Line
- Access Roads

- Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-15
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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Non-Jurisdictional Features
- Concrete V-Ditch (BMP)

Jurisdictional Waters (USACE/RWQCB/CDFW)
- Ephemeral stream
- Erosional rill

Project Components
- Survey Area

Project Components
- Permanent Impacts
- Temporary Impacts

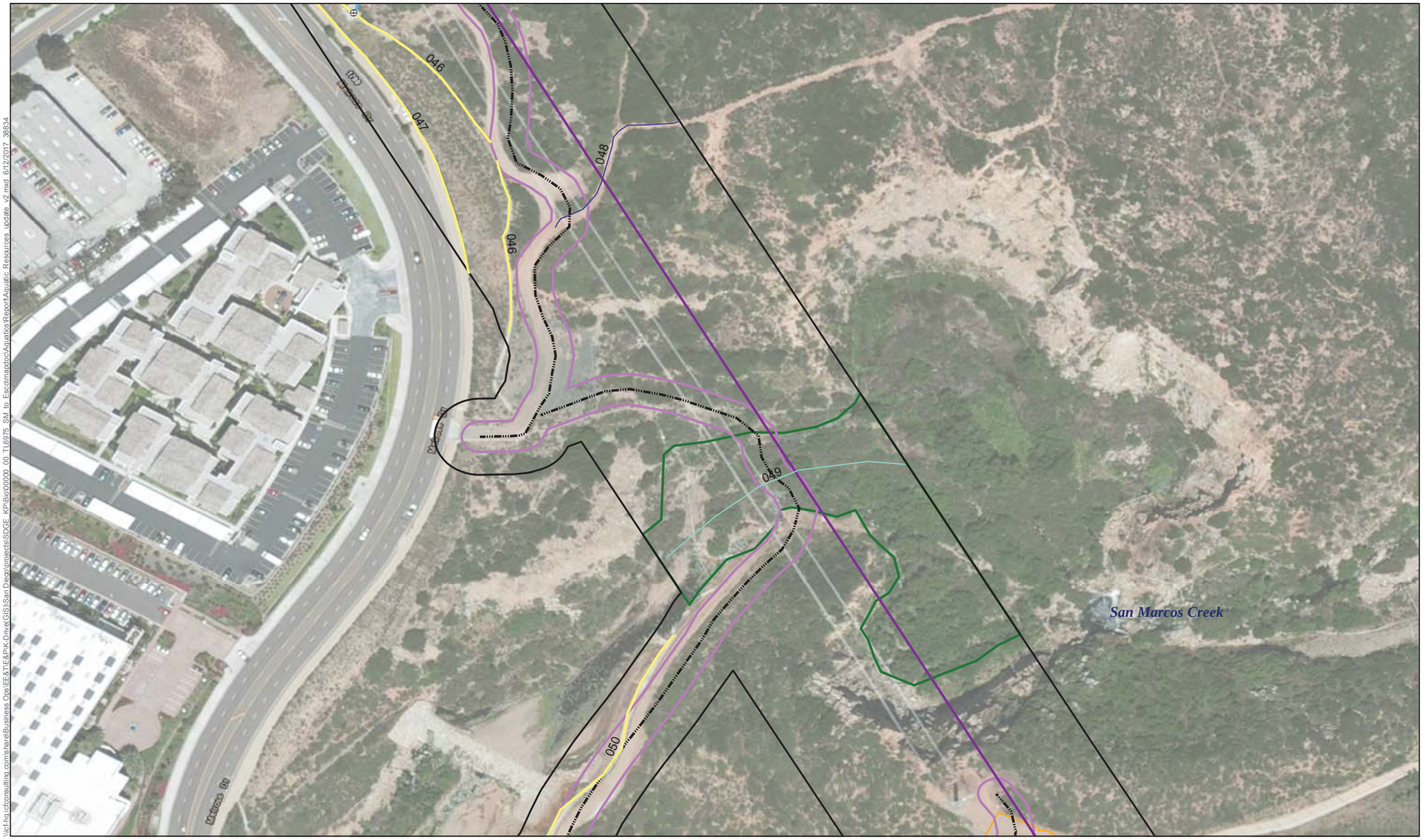
- Poles
- Transmission Line
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-16
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

Figure 6b-17
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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ICF

- Culverts
- **Non-Jurisdictional Features**
  - Concrete V-Ditch (BMP)
- **Jurisdictional Waters (USACE/RWQCB/CDFW)**
  - Ephemeral stream
  - Erosional rill
  - Perennial stream
  - Wetland/Riparian
- **Project Components**
  - Survey Area
  - Temporary Impacts
  - Transmission Line
  - Access Roads
  - Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-18
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Wetland Data Points

Non-Jurisdictional Features

Concrete V-Ditch (BMP)

Jurisdictional Waters (USACE/RWQCB/CDFW)

Concrete Lined Ephemeral Stream

Project Components

Survey Area

Project Components

Permanent Impacts

Temporary Impacts

Poles

Transmission Line

Access Roads

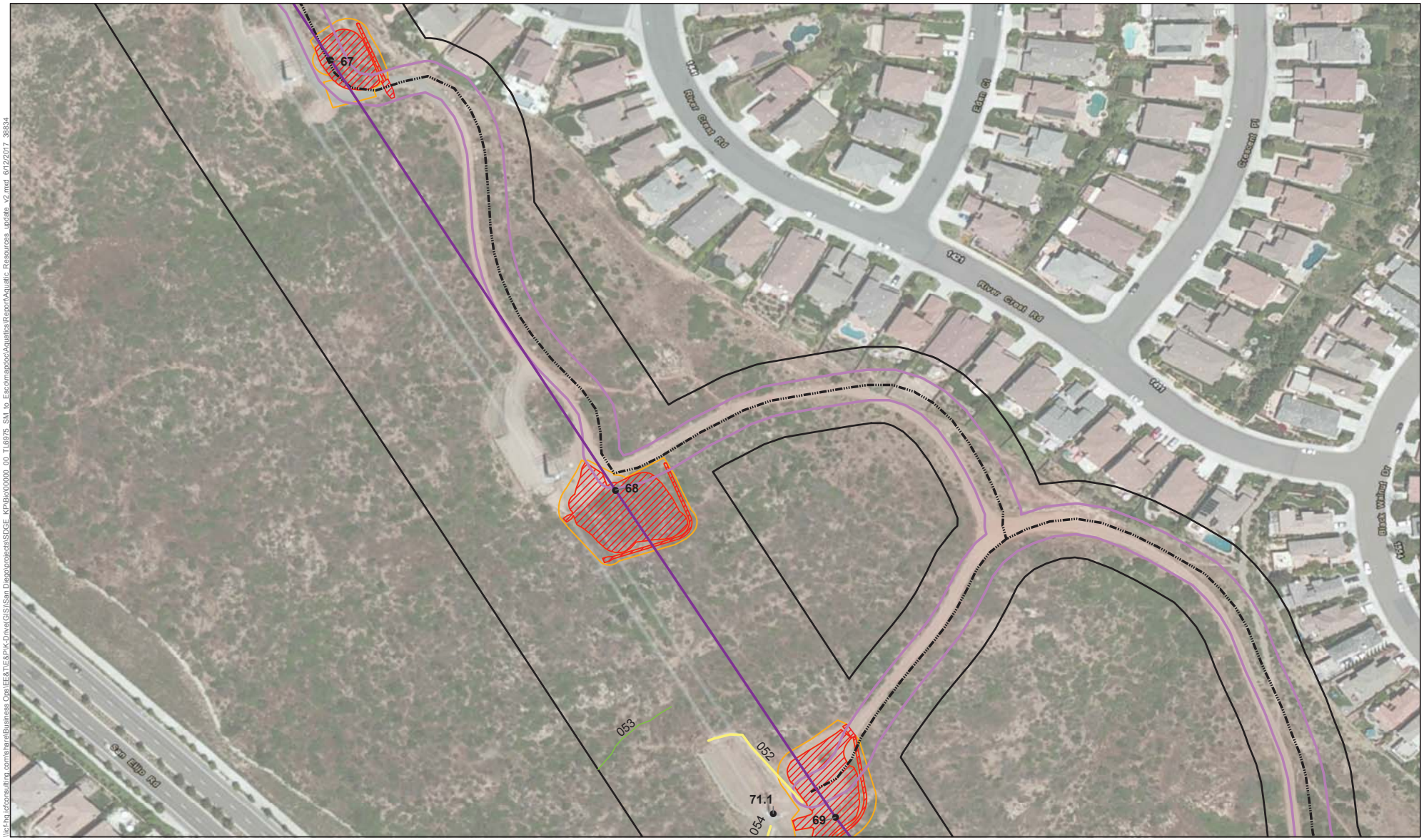
Access Roads-40ft Buffer

N

0 65 130

Feet

Figure 6b-19
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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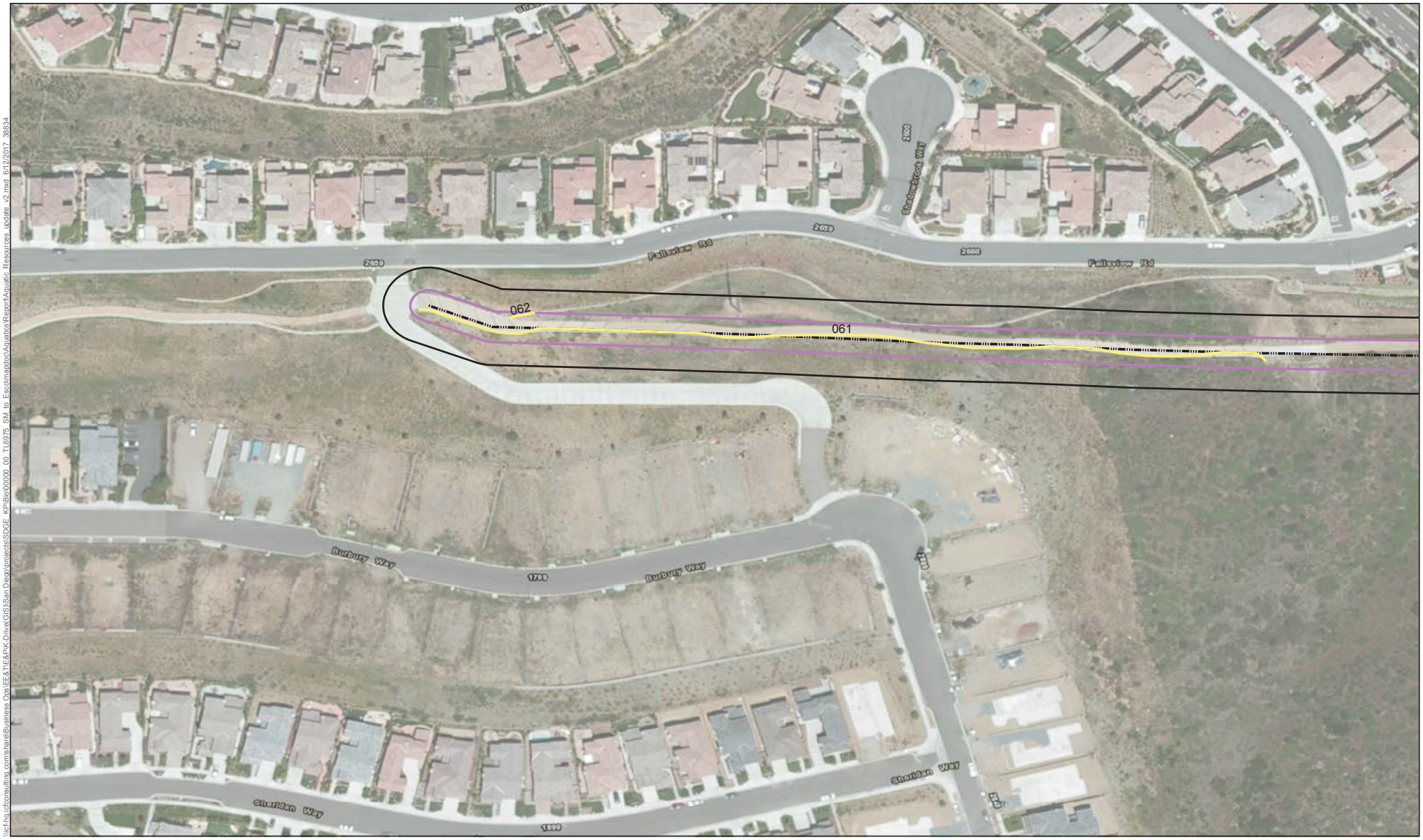
Non-Jurisdictional Features
Concrete V-Ditch (BMP)
Jurisdictional Waters (USACE/RWQCB/CDFW)
Swale

Project Components
Survey Area
Project Components
Permanent Impacts
Temporary Impacts

Poles
Transmission Line
Access Roads
Access Roads-40ft Buffer

N
0 65 130
Feet

Figure 6b-20
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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Non-Jurisdictional Features
Concrete V-Ditch (BMP)

Project Components
Survey Area
Access Roads
Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-22
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Project Components

- Survey Area
- Poles
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130

Feet

Figure 6b-23
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

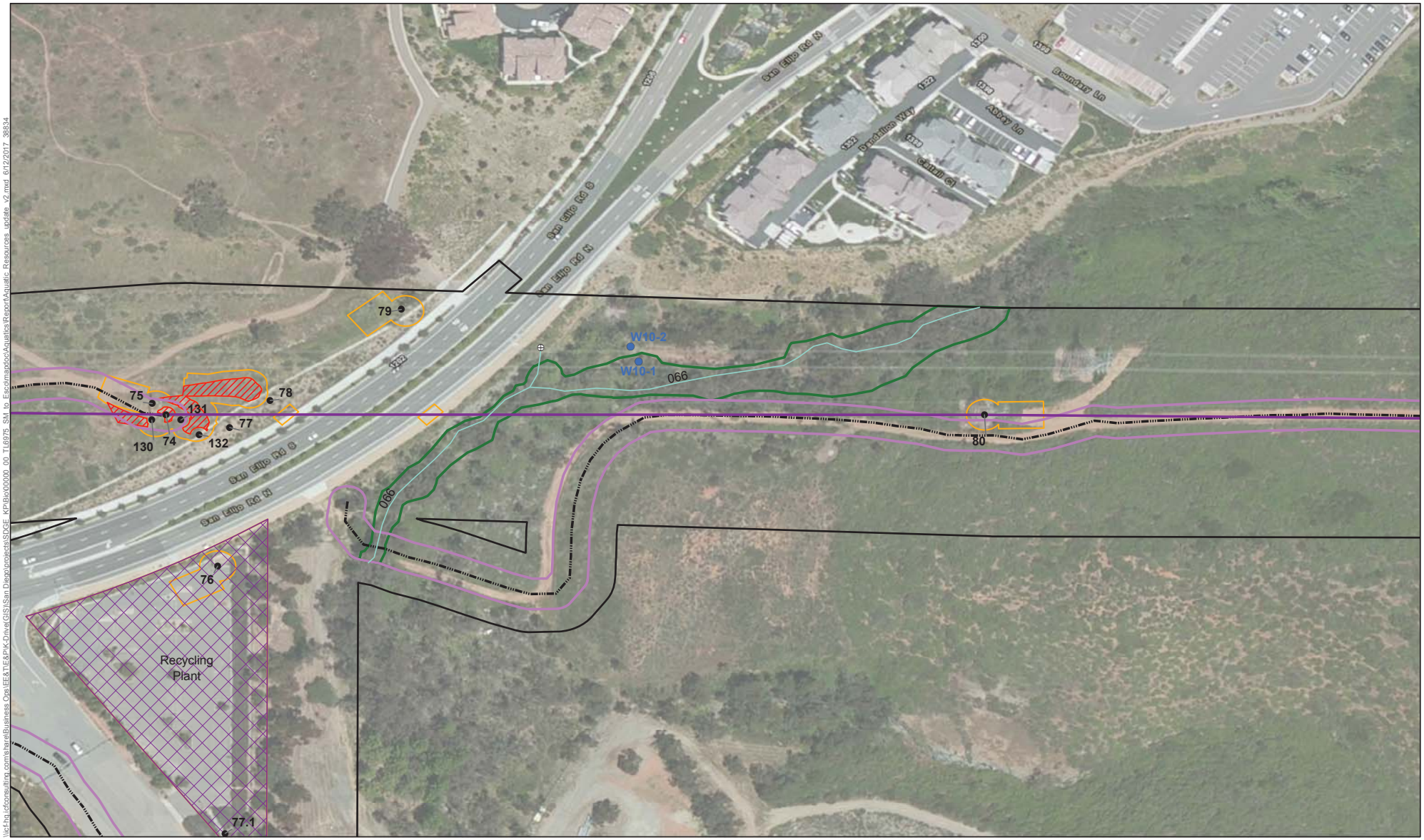

Figure 6b-24
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Jurisdictional Waters (USACE/RWQCB/CDFW)
Swale

Project Components
Survey Area
Staging Yard
Temporary Impacts
Poles
Access Roads
Access Roads-40ft Buffer

N
0 65 130
Feet

Figure 6b-25
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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⊕ Culverts

Jurisdictional Waters (USACE/RWQCB/CDFW)

Swale

Project Components

Survey Area

Staging Yard

Temporary Impacts

Access Roads

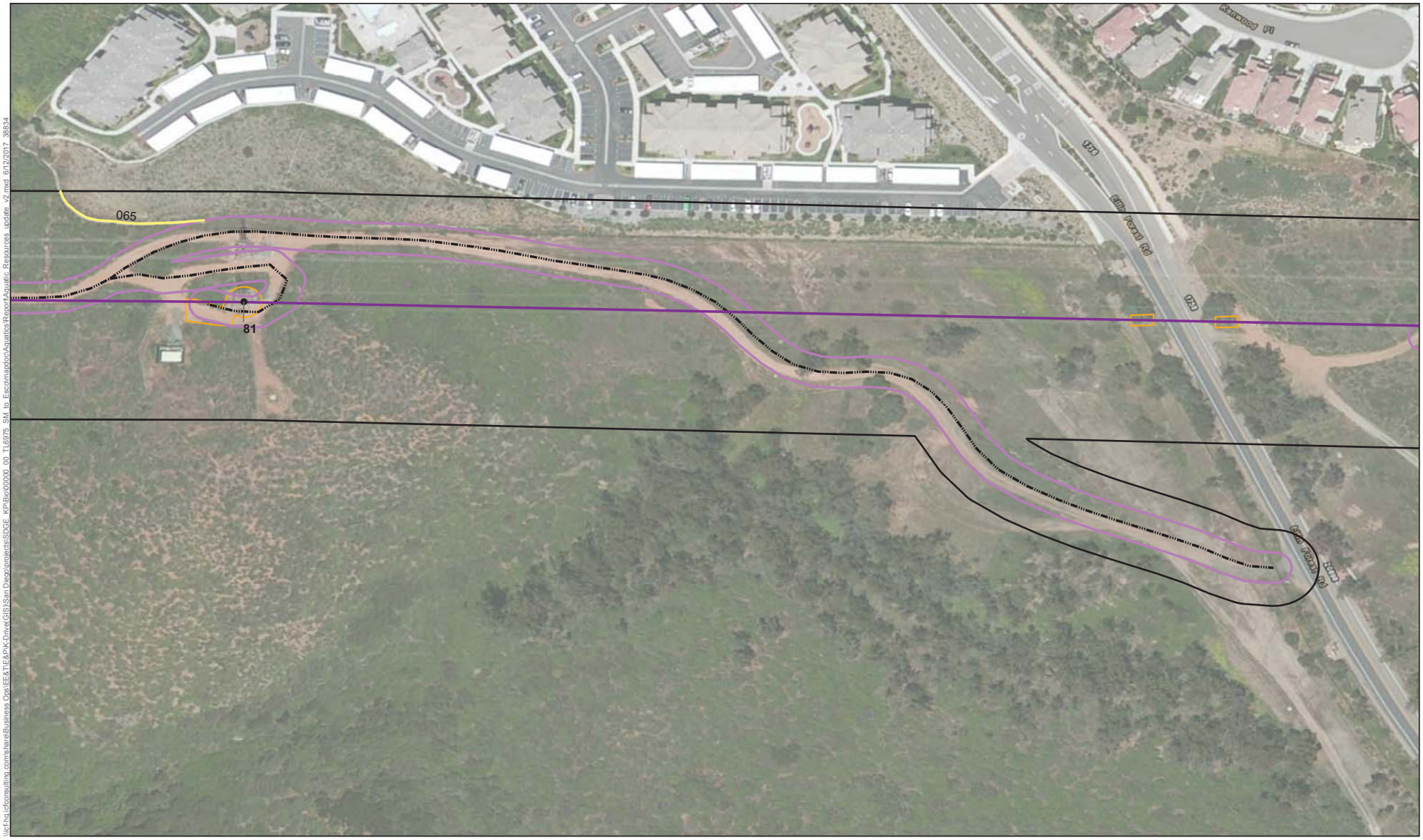
Access Roads-40ft Buffer

N

0 65 130

Feet

Figure 6b-26
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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Non-Jurisdictional Features
- Concrete V-Ditch (BMP)

Project Components
- Survey Area
- Temporary Impacts
- Poles
- Transmission Line
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-27
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Project Components
Access Roads-40ft Buffer
Survey Area
Access Roads

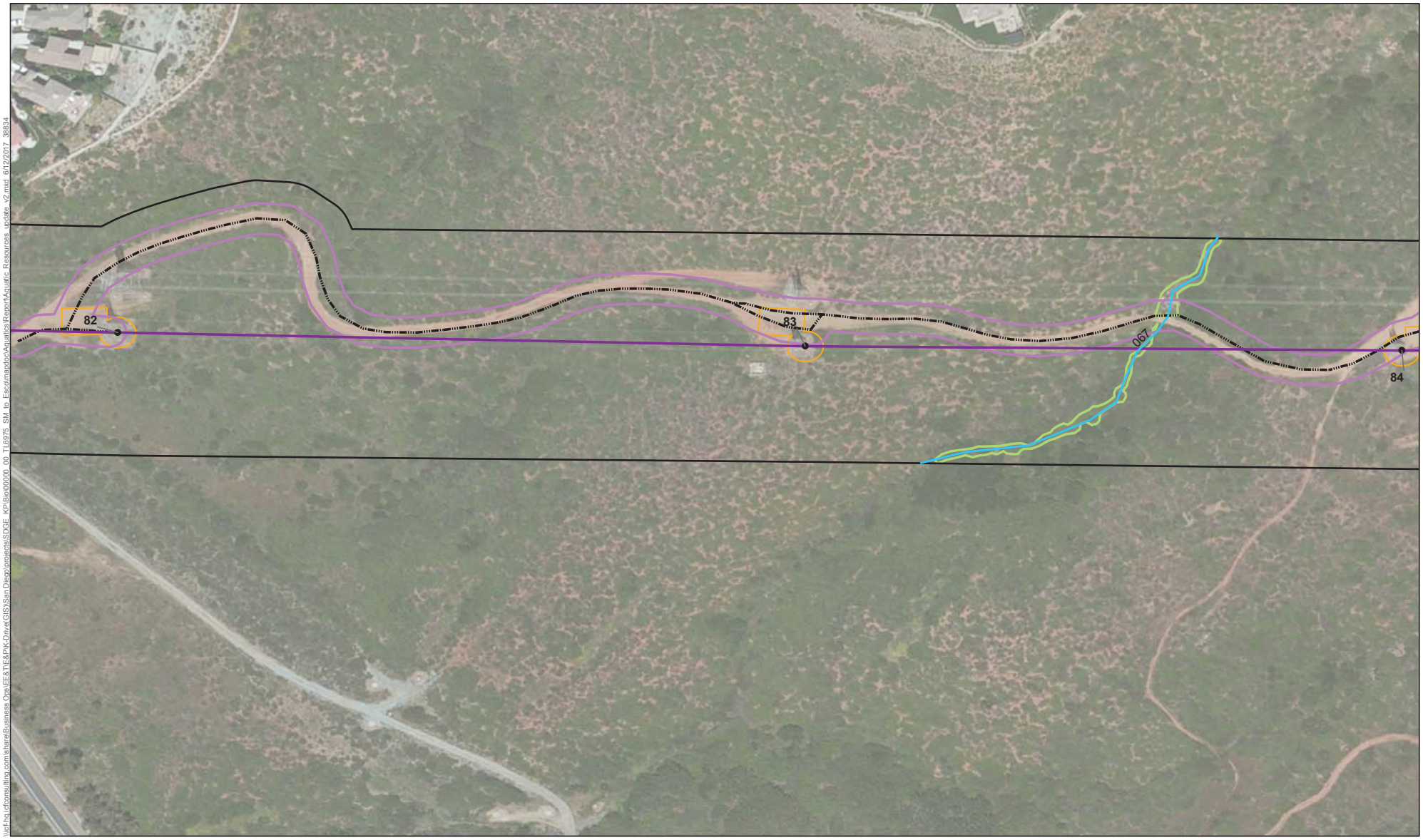
N
0 65 130
Feet

Figure 6b-28
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

Project Components
Access Roads-40ft Buffer
Survey Area
Access Roads

N
0 65 130
Feet

Figure 6b-29
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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Jurisdictional Waters (USACE/RWQCB/CDFW)
- Ephemeral stream
- CDFW Only Riparian

Project Components
- Survey Area
- Temporary Impacts
- Poles
- Transmission Line
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-30
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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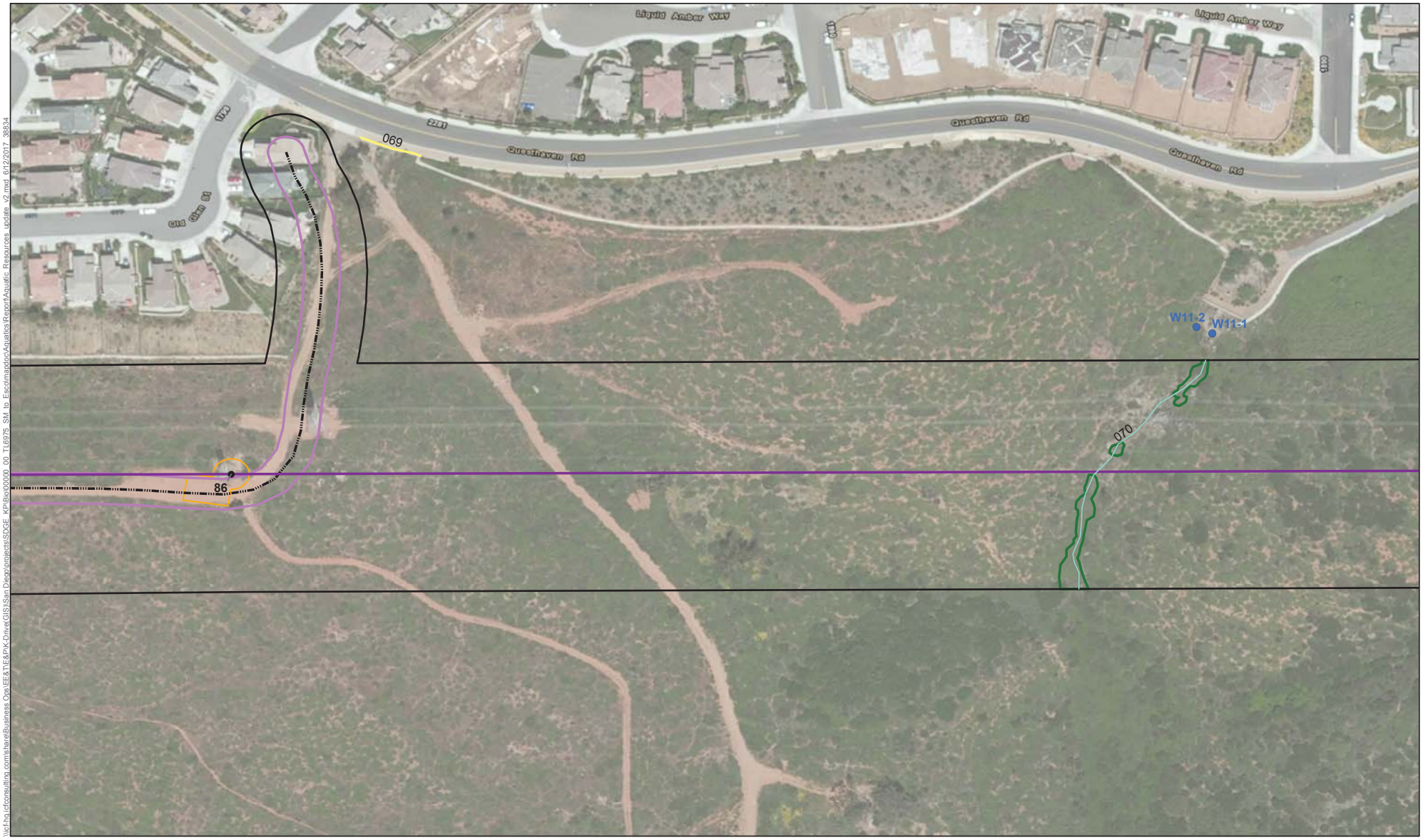
Non-Jurisdictional Features
- Concrete V-Ditch (BMP)

Project Components
- Survey Area
- Temporary Impacts
- Poles
- Transmission Line
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-31
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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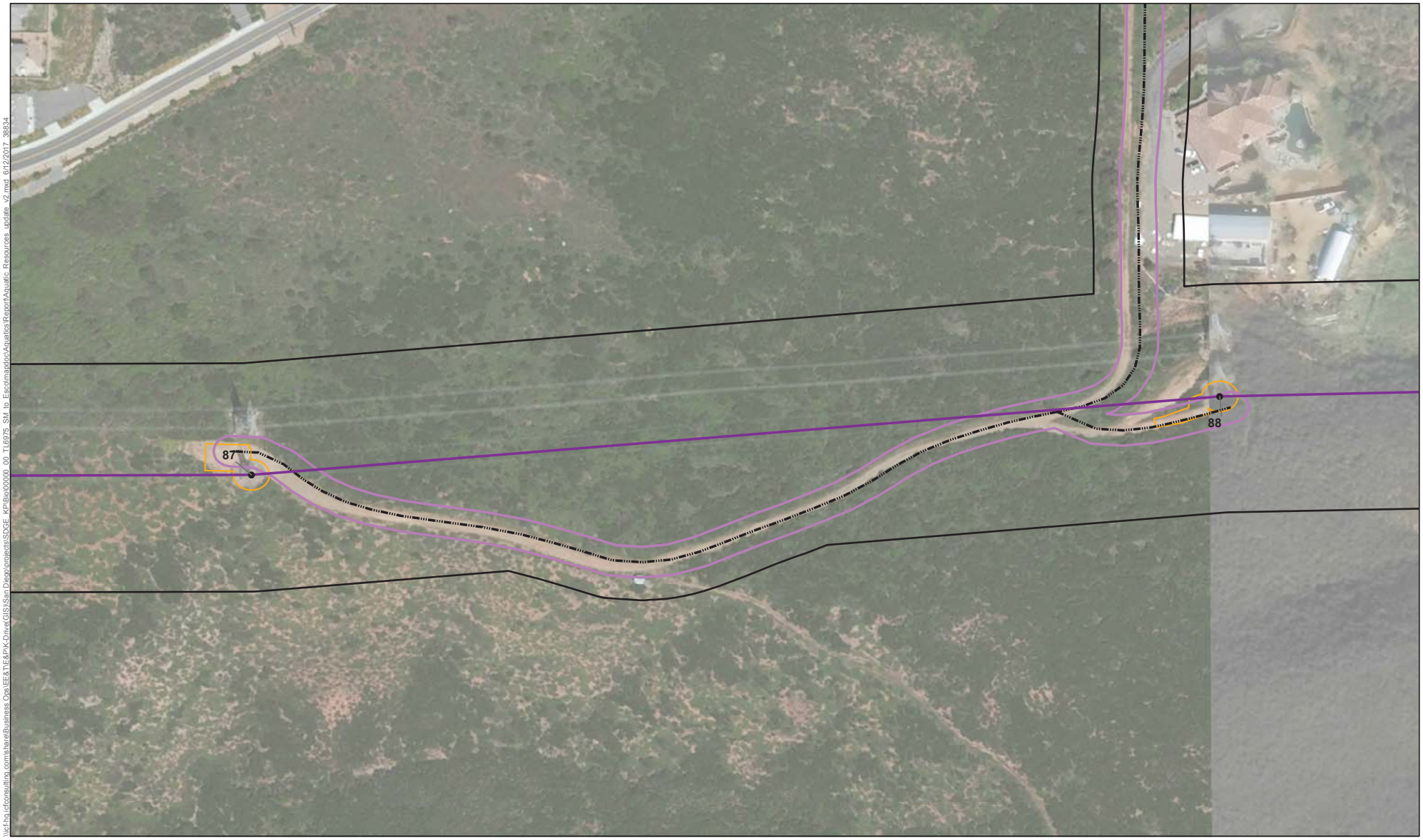
- Wetland Data Points
- **Non-Jurisdictional Features**
- Concrete V-Ditch (BMP)
- **Jurisdictional Waters (USACE/RWQCB/CDFW)**
- Perennial stream
- Wetland/Riparian
- **Project Components**
- Survey Area
- Temporary Impacts
- Poles
- Transmission Line
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-32
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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Project Components
- Survey Area
- Temporary Impacts
- Poles
- Transmission Line
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-33
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

Figure 6b-34
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Culverts

Jurisdictional Waters (USACE/RWQCB/CDFW)

Ephemeral stream

Project Components

Survey Area

Temporary Impacts

Poles

Transmission Line

Access Roads

Access Roads-40ft Buffer

N

0 65 130

Feet

Figure 6b-35
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

Culverts

Jurisdictional Waters (USACE/RWQCB/CDFW)

Ephemeral stream

Project Components

Survey Area

Transmission Line

Access Roads

Access Roads-40ft Buffer

N

0 65 130

Feet

Figure 6b-36
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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⊕ Culverts

Jurisdictional Waters (USACE/RWQCB/CDFW)

Ephemeral stream

Project Components

Access Roads-40ft Buffer

Survey Area

Access Roads

N

0 65 130

Feet

Figure 6b-37
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Culverts
Jurisdictional Waters (USACE/RWQCB/CDFW)
Ephemeral stream
Erosional rill
Project Components
Survey Area
Temporary Impacts
Poles
Transmission Line
Access Roads
Access Roads-40ft Buffer

N
0 65 130
Feet

Figure 6b-38
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Figure 6b-39
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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ICF

⊕ Culverts

Jurisdictional Waters (USACE/RWQCB/CDFW)

Ephemeral stream

Project Components

Access Roads-40ft Buffer

Survey Area

Access Roads

N

0 65 130

Feet

Figure 6b-40
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Jurisdictional Waters (USACE/RWQCB/CDFW)

- Ephemeral stream
- Erosional rill

Project Components

- Survey Area
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130

Feet

Figure 6b-41
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Culverts

Jurisdictional Waters (USACE/RWQCB/CDFW)

Ephemeral stream

Project Components

Survey Area

Temporary Impacts

Poles

Transmission Line

Access Roads

Access Roads-40ft Buffer

N

0 65 130

Feet

Figure 6b-42
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Jurisdictional Waters (USACE/RWQCB/CDFW)
Swale

Project Components
Survey Area
Temporary Impacts
Poles
Transmission Line
Access Roads
Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-43
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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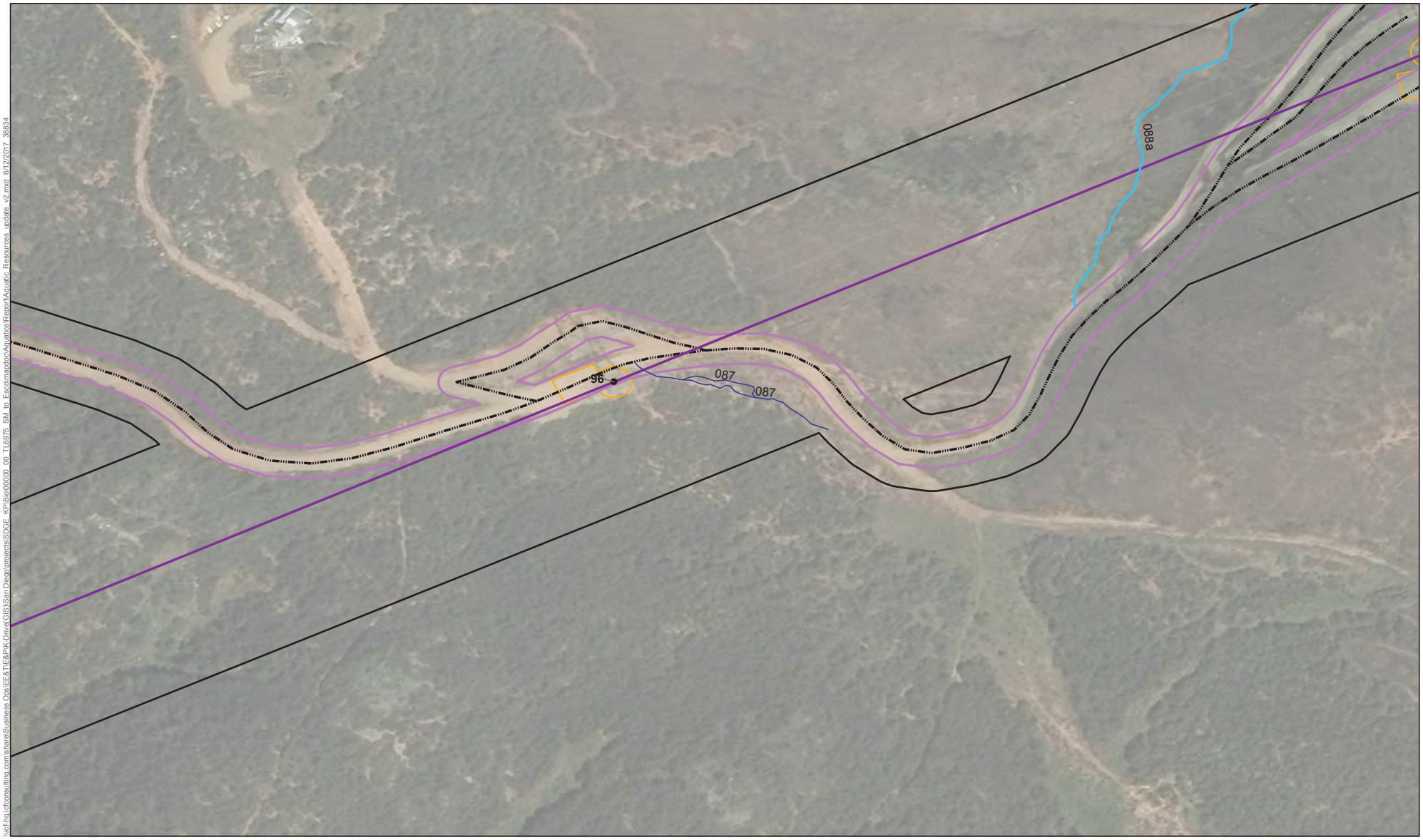
Jurisdictional Waters (USACE/RWQCB/CDFW)
- Ephemeral stream

Project Components
- Survey Area
- Temporary Impacts
- Poles
- Transmission Line
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-44
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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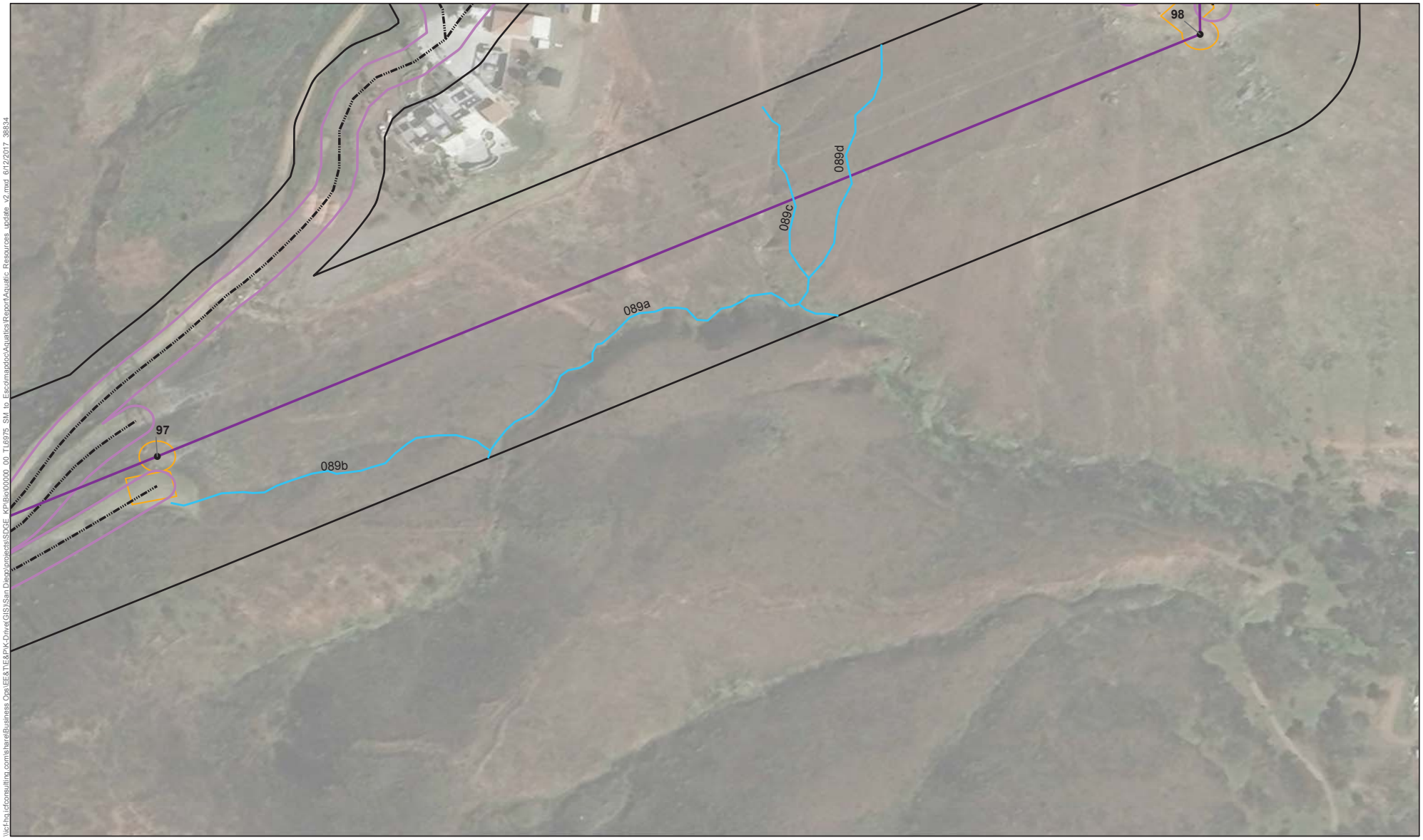
Jurisdictional Waters (USACE/RWQCB/CDFW)
- Ephemeral stream
- Erosional rill

Project Components
- Survey Area
- Temporary Impacts
- Poles
- Transmission Line
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-45
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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Jurisdictional Waters (USACE/RWQCB/CDFW)
- Ephemeral stream

Project Components
- Survey Area
- Temporary Impacts
- Poles
- Transmission Line
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-46
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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ICF

⊕ Culverts

Jurisdictional Waters (USACE/RWQCB/CDFW)

Ephemeral stream

Wetland/Riparian

CDFW Only Riparian

Project Components

Survey Area

Temporary Impacts

Transmission Line

Access Roads

Access Roads-40ft Buffer

N

0 65 130

Feet

Figure 6b-47
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

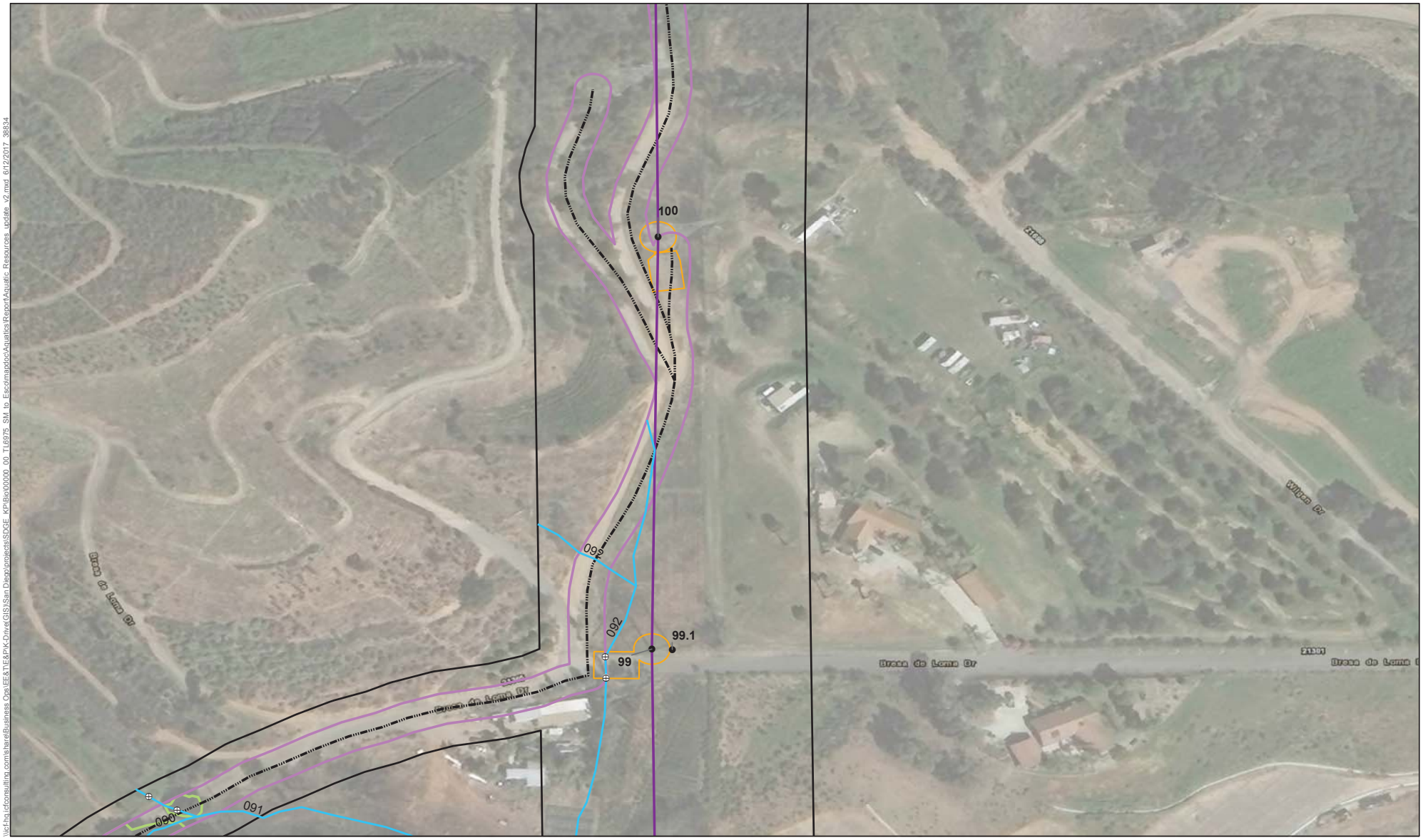
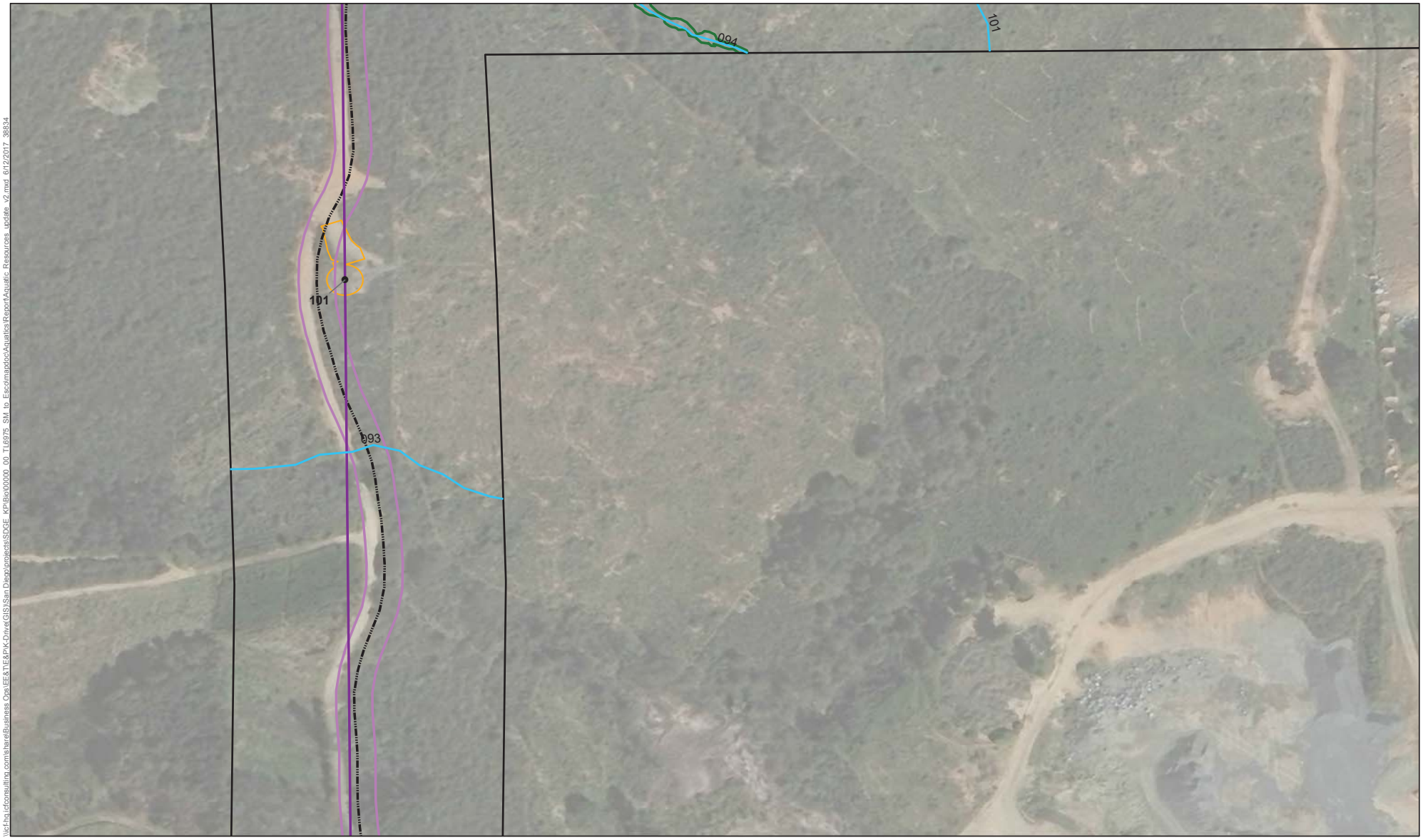


Figure 6b-48
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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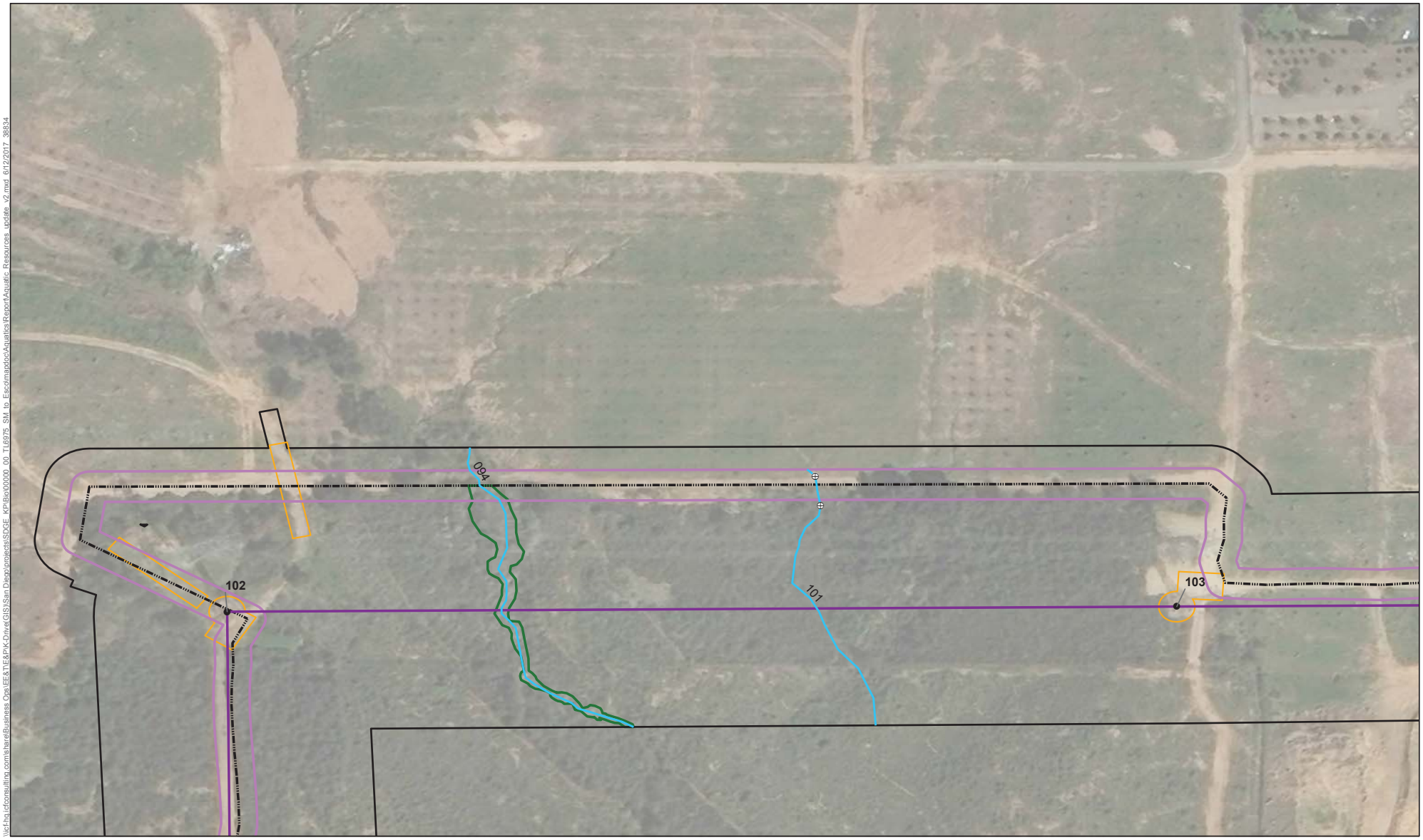
Jurisdictional Waters (USACE/RWQCB/CDFW)
- Ephemeral stream
- Wetland/Riparian

Project Components
- Survey Area
- Temporary Impacts
- Poles
- Transmission Line
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-49
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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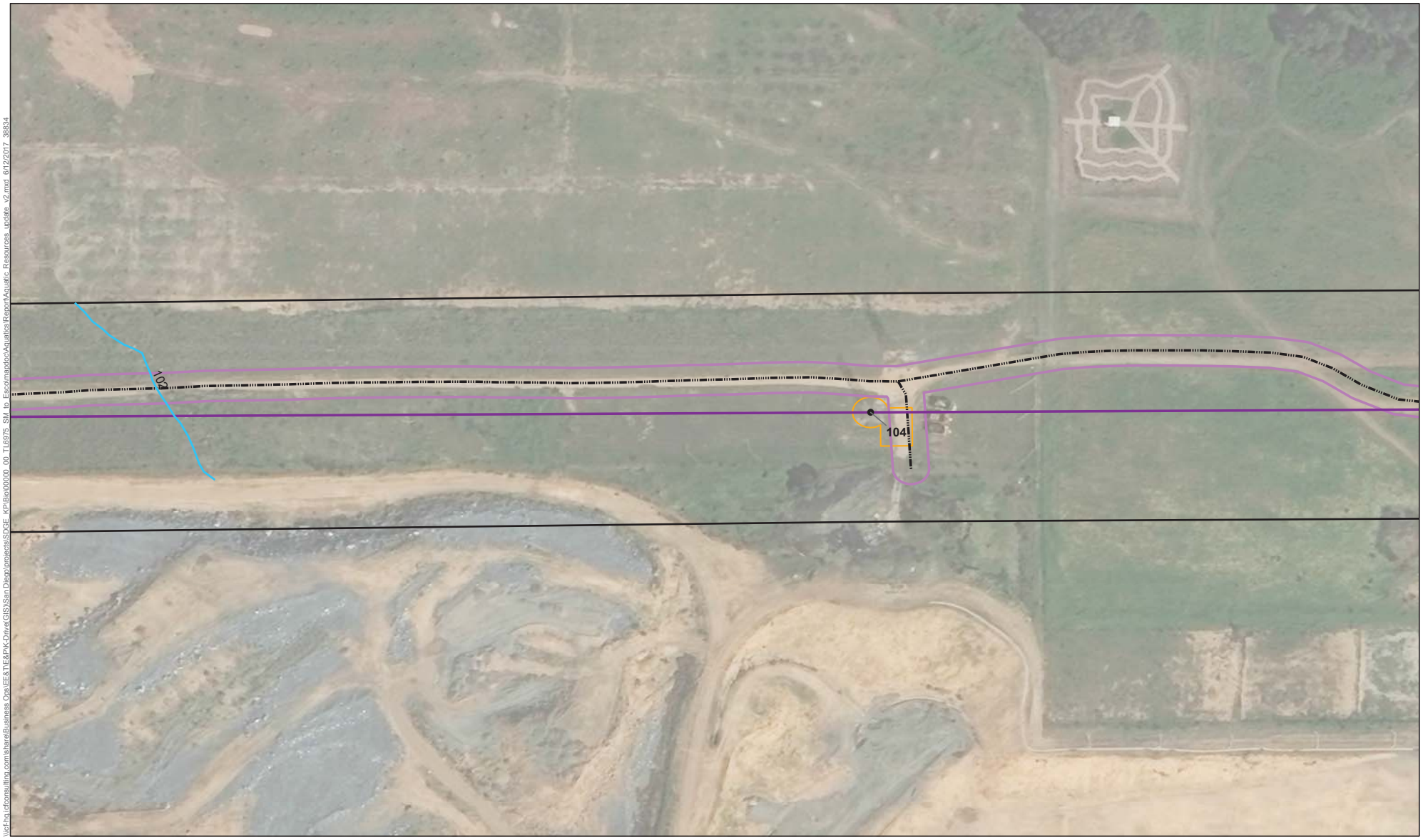
Culverts
Jurisdictional Waters (USACE/RWQCB/CDFW)
Ephemeral stream
Wetland/Riparian
Project Components
Survey Area
Temporary Impacts
Poles
Transmission Line
Access Roads
Access Roads-40ft Buffer

N
0 65 130
Feet

Figure 6b-50
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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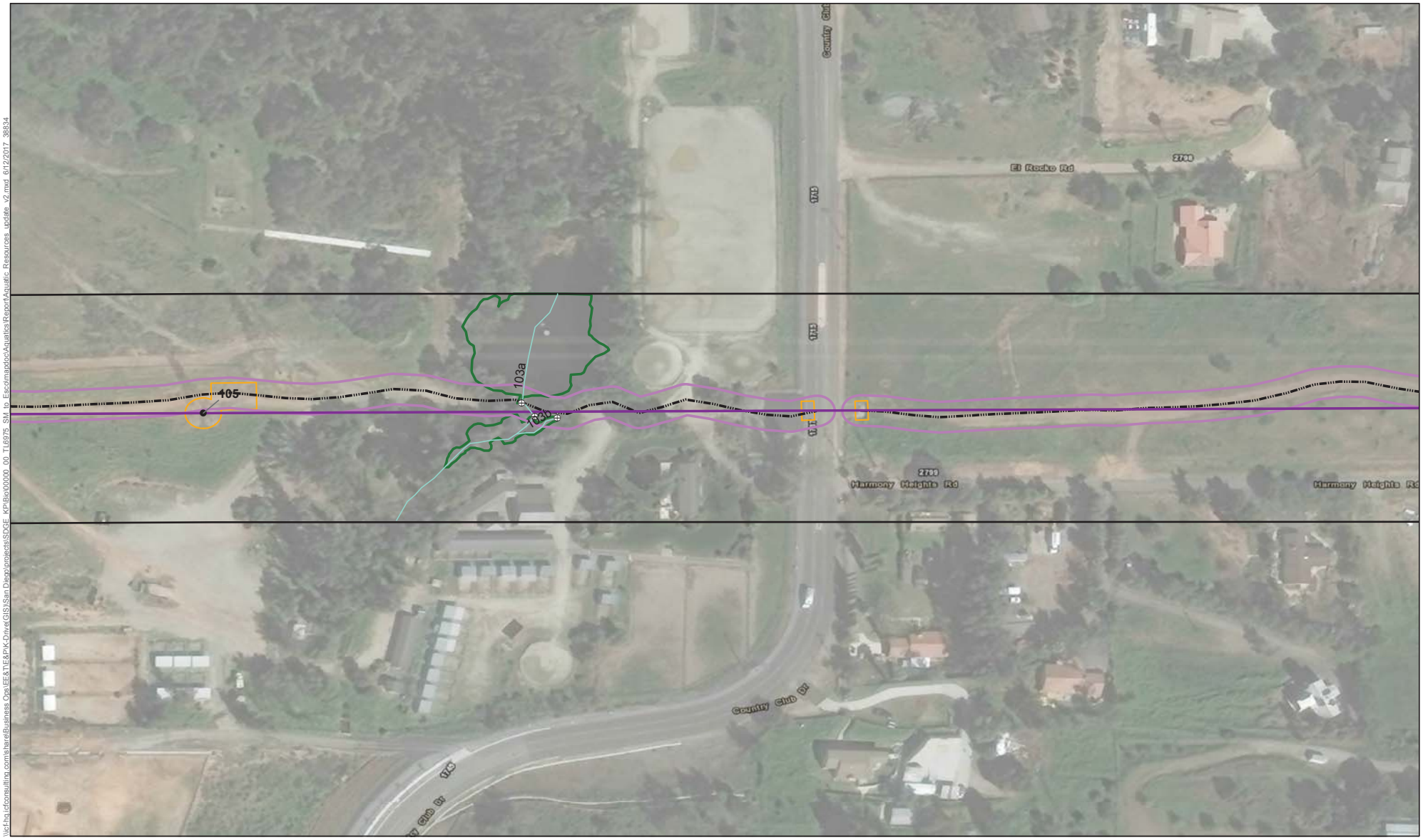
Jurisdictional Waters (USACE/RWQCB/CDFW)
- Ephemeral stream

Project Components
- Survey Area
- Temporary Impacts
- Poles
- Transmission Line
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-51
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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⊕ Culverts

Jurisdictional Waters (USACE/RWQCB/CDFW)

Perennial stream

Wetland/Riparian

Project Components

Survey Area

Temporary Impacts

Poles

Transmission Line

Access Roads

Access Roads-40ft Buffer

N

0 65 130

Feet

Figure 6b-52
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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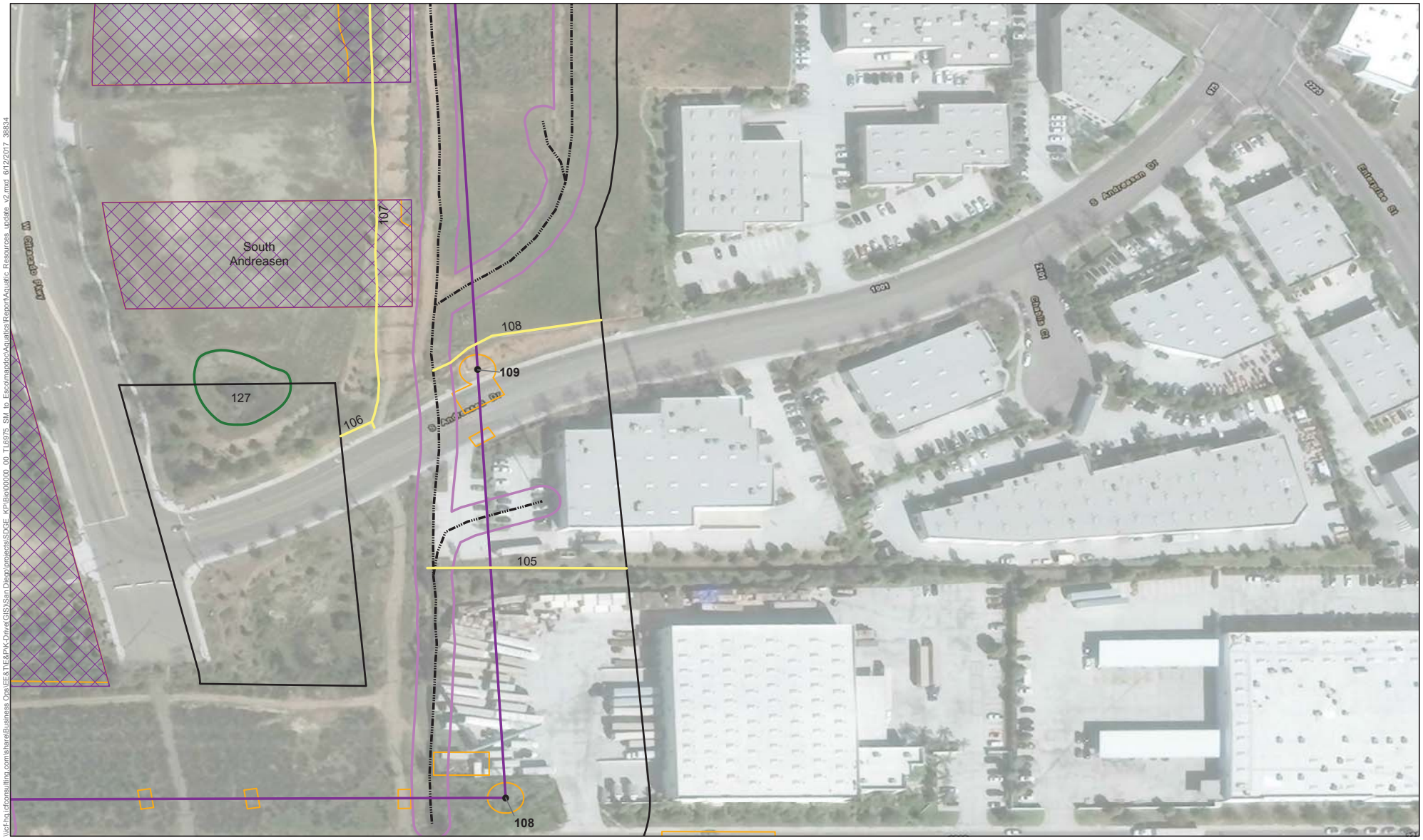
Project Components

- Survey Area
- Temporary Impacts
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-54
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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Non-Jurisdictional Features
- Concrete V-Ditch (BMP)
- Wetland/Riparian

Project Components
- Survey Area
- Staging Yard
- Temporary Impacts
- Poles
- Transmission Line
- Access Roads
- Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-55
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Project Components

Temporary Impacts

Survey Area

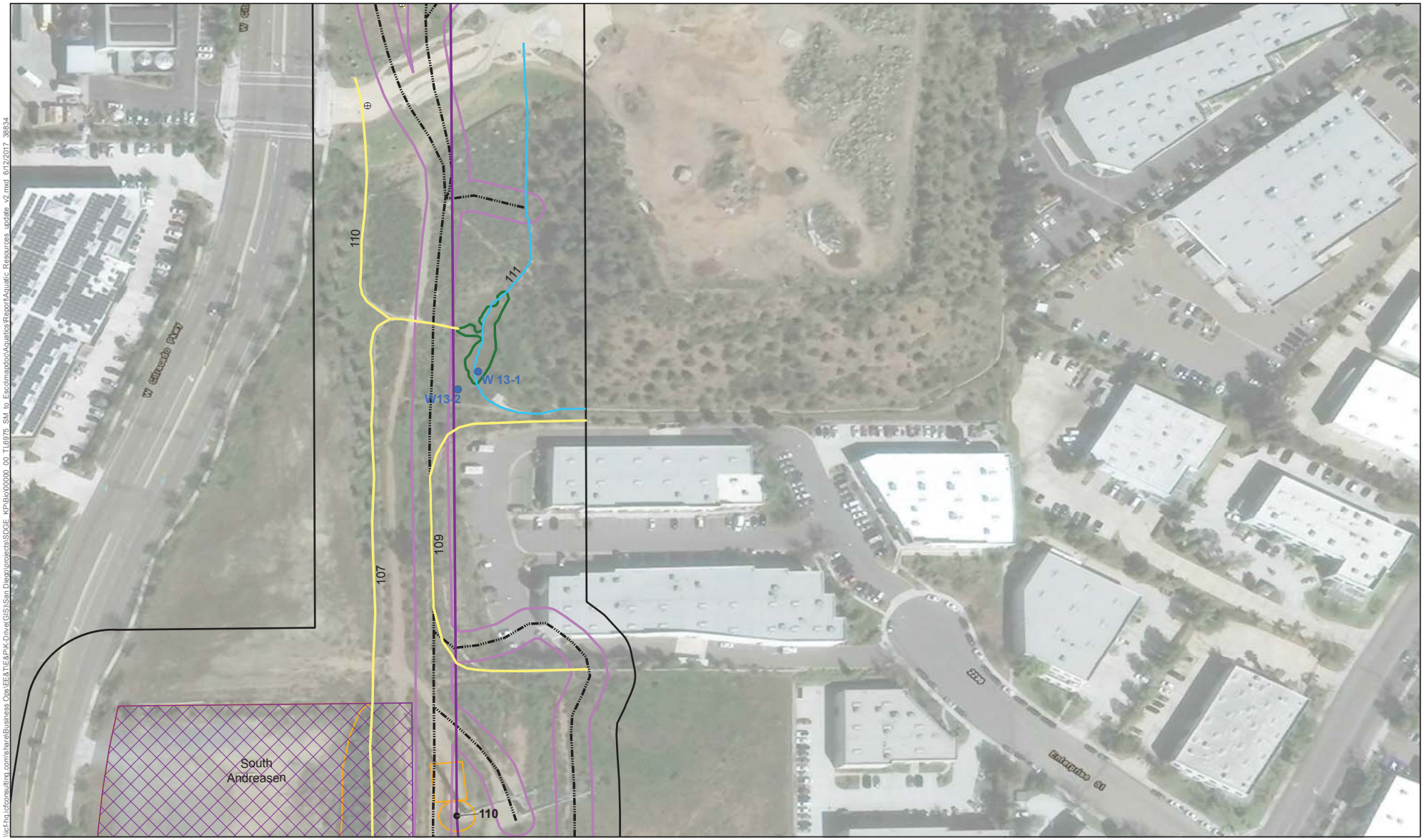
Staging Yard

N

0 65 130

Feet

Figure 6b-56
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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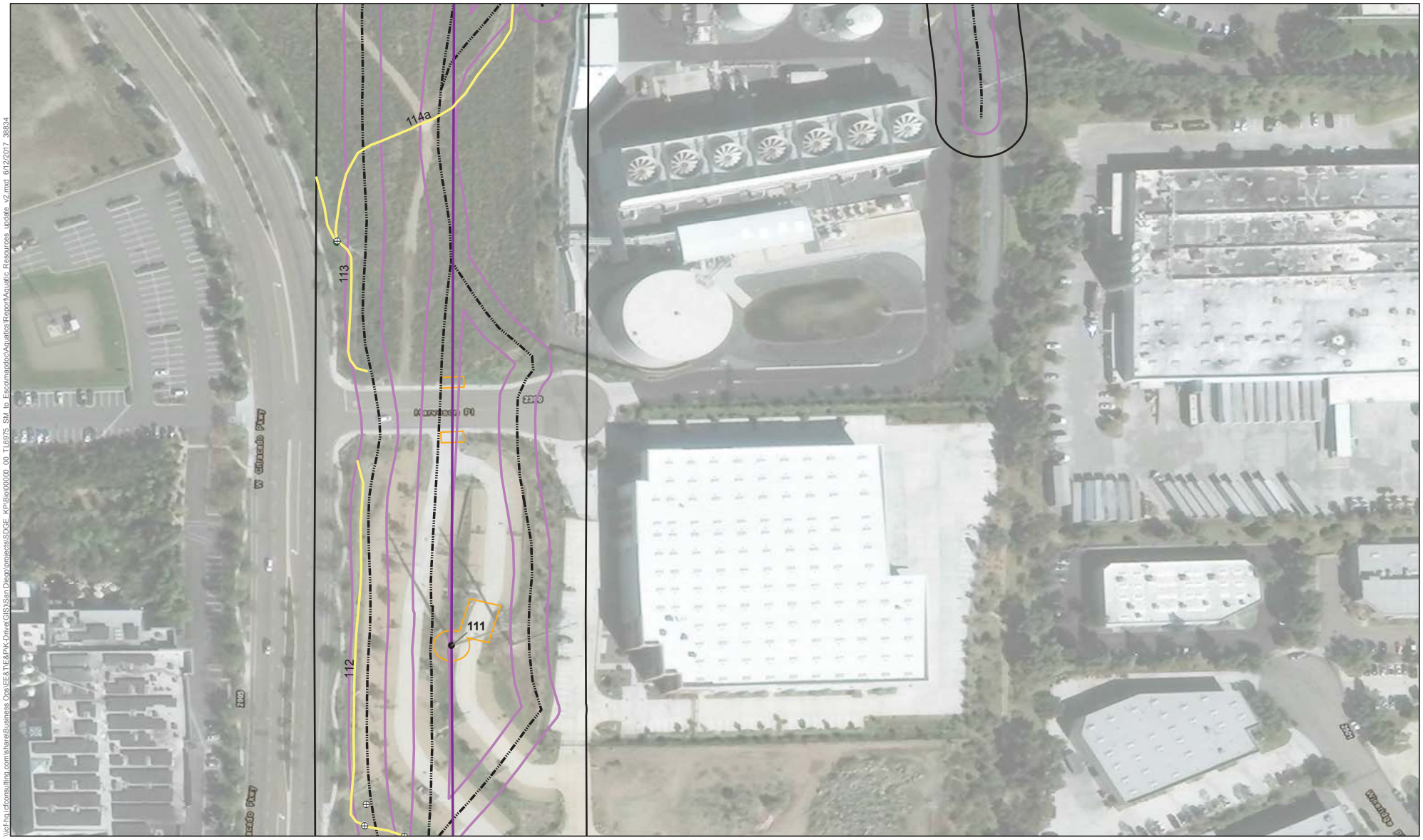
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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Culverts

Non-Jurisdictional Features

Concrete V-Ditch (BMP)

Wetland/Riparian

Project Components

Survey Area

Temporary Impacts

Poles

Transmission Line

Access Roads

Access Roads-40ft Buffer

N

0 65 130

Feet

Figure 6b-58
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

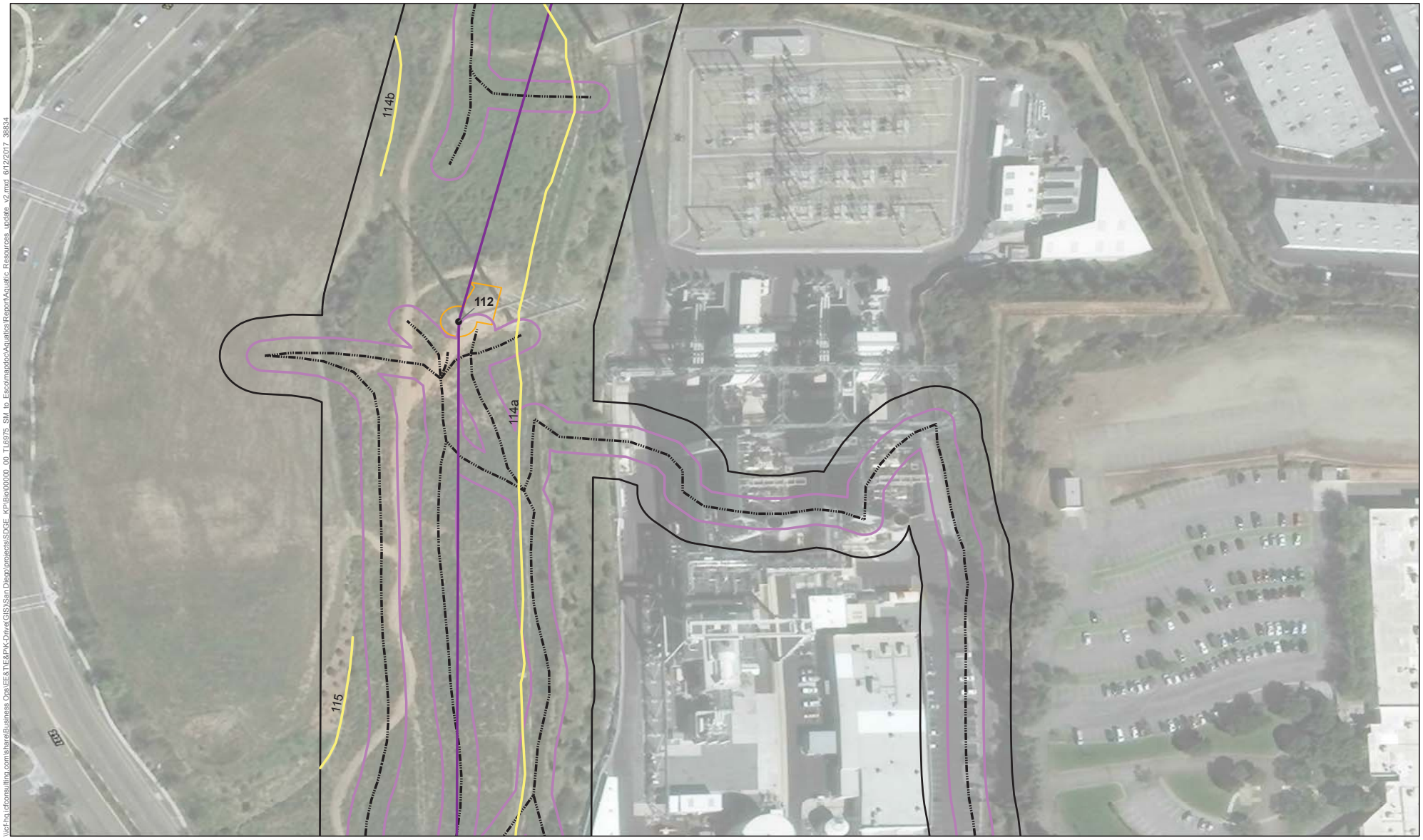
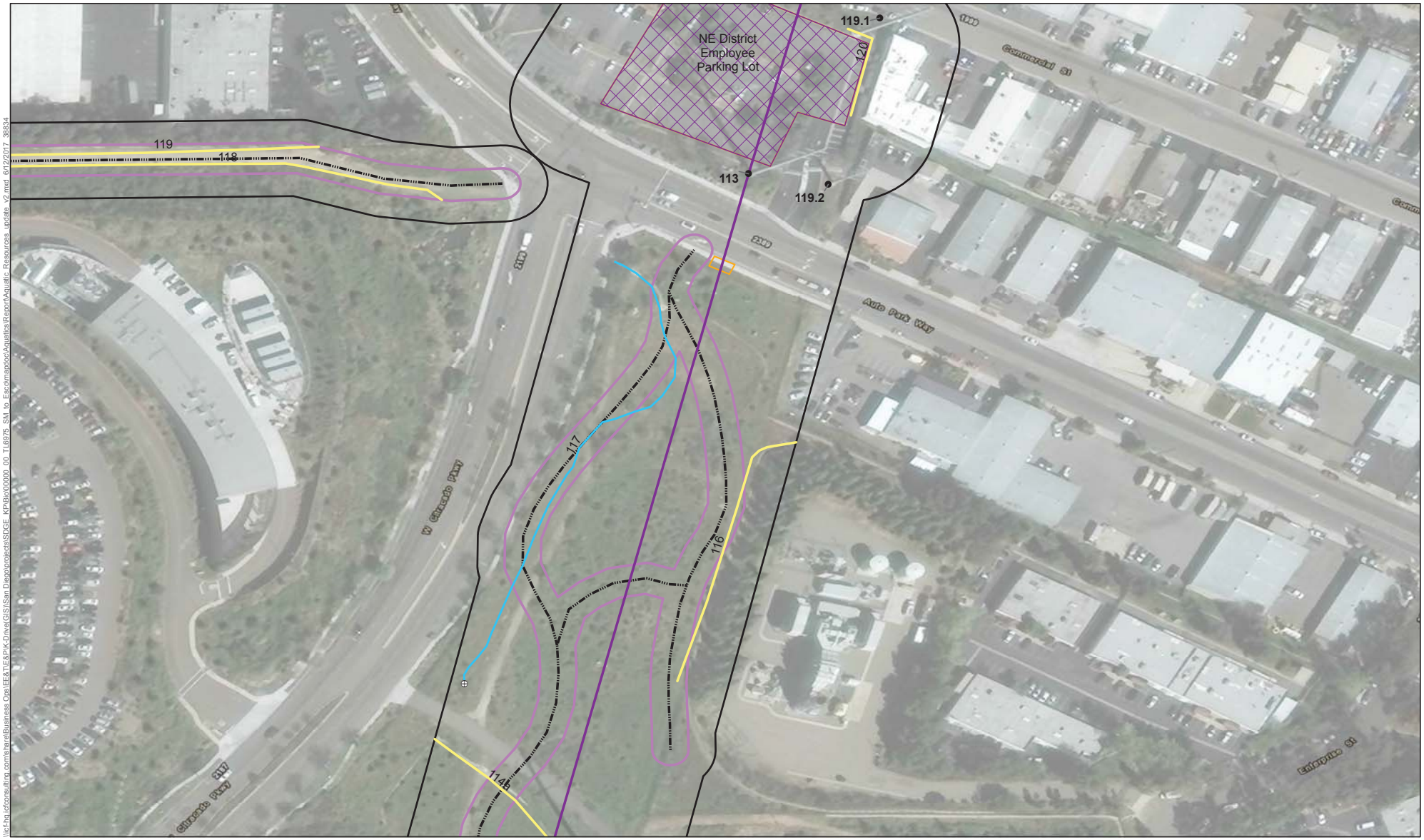


Figure 6b-59
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



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ICF

⊕ Culverts

Non-Jurisdictional Features

Concrete V-Ditch (BMP)

Jurisdictional Waters (USACE/RWQCB/CDFW)

Ephemeral stream

Project Components

Survey Area

Staging Yard

Temporary Impacts

Poles

Transmission Line

Access Roads

Access Roads-40ft Buffer

N

0 65 130

Feet

Figure 6b-60
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Non-Jurisdictional Features
Concrete V-Ditch (BMP)

Project Components
Survey Area
Access Roads
Access Roads-40ft Buffer

N

0 65 130
Feet

Figure 6b-61
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

Figure 6b-62
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Access Roads

Access Roads-40ft Buffer

N

0 65 130

Feet

Figure 6b-63
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Access Roads

Access Roads-40ft Buffer

N

0 65 130

Feet

Figure 6b-64
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Access Roads

Access Roads-40ft Buffer

N

0 65 130

Feet

Figure 6b-65
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

Figure 6b-66
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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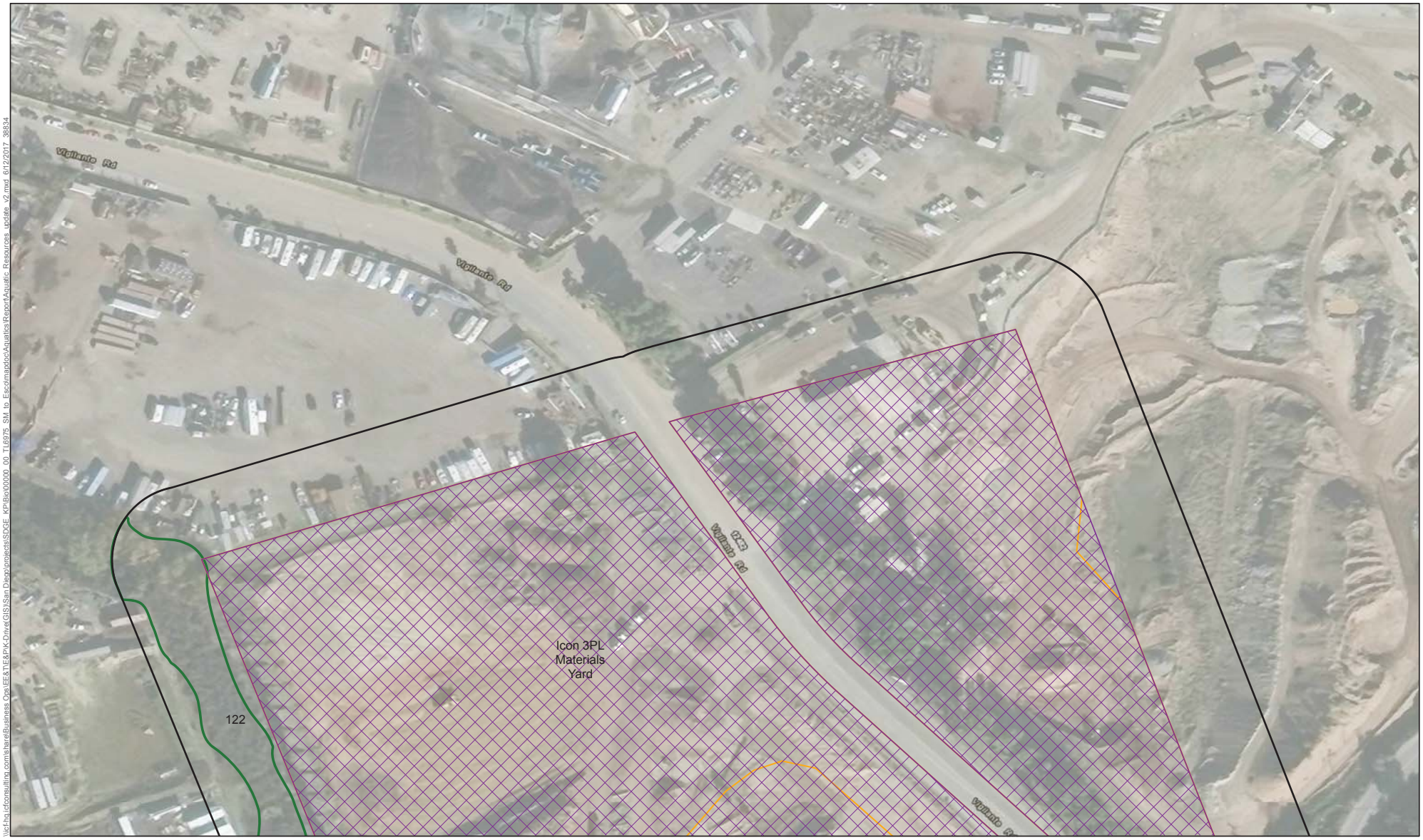
Project Components
- Temporary Impacts
- Survey Area
- Staging Yard

N

0 65 130
Feet

Figure 6b-67
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project



Wetland/Riparian
Staging Yard
Project Components
Temporary Impacts
Survey Area

N

0 65 130
Feet

Figure 6b-68
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Wetland/Riparian
Staging Yard
Project Components
Temporary Impacts
Survey Area

N

0 65 130
Feet

Figure 6b-69
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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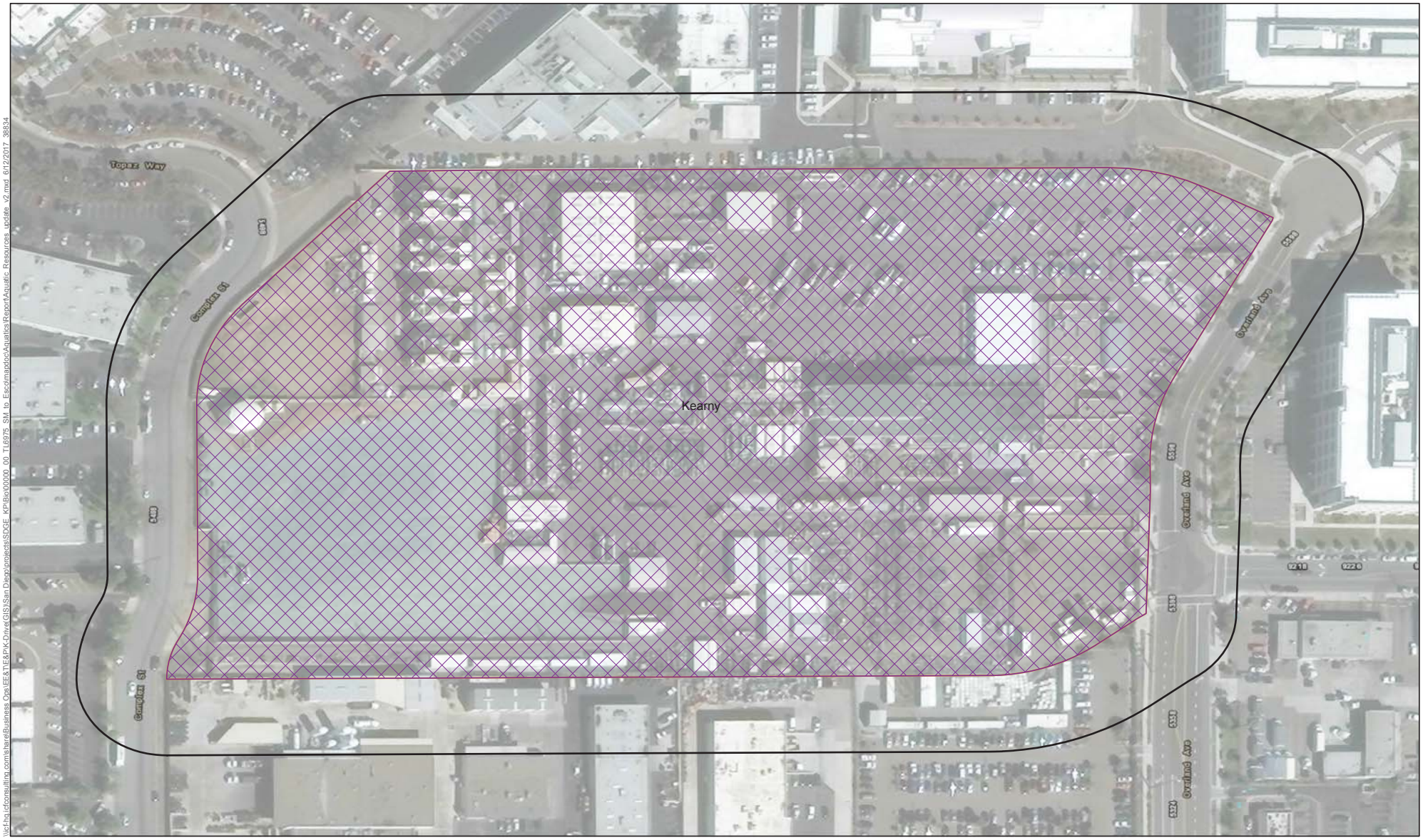

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Project Components
Temporary Impacts
Survey Area
Staging Yard

N

0 65 130
Feet

Figure 6b-70
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

Project Components
- Temporary Impacts
- Survey Area
- Staging Yard

N

0 65 130
Feet

Figure 6b-72
Jurisdictional Delineation Maps
TL 6975 Escondido to San Marcos New 69kV Project

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Appendix B
Site Photographs, June 2017

Photo 1. Aquatic Feature 001a, an ephemeral stream, facing north. Located approximately 50 feet southeast of Location 6.

Photo 2. Aquatic Feature 002, a perennial stream, facing north. Located approximately 15 feet southeast of Location 7.

Photo 3. Aquatic Feature 003, an ephemeral stream, facing west. Located approximately 130 feet southeast of Location 27.

Photo 4. Aquatic Feature 007a, an intermittent stream, facing northeast. Located approximately 160 feet east of Location 30.

Photo 5. Aquatic Feature 008, swale, facing northeast. Located approximately 70 feet east of Location 30.

Photo 6. Aquatic Feature 010a, San Marcos Creek, facing east. Located approximately 78 feet north of Location 32.

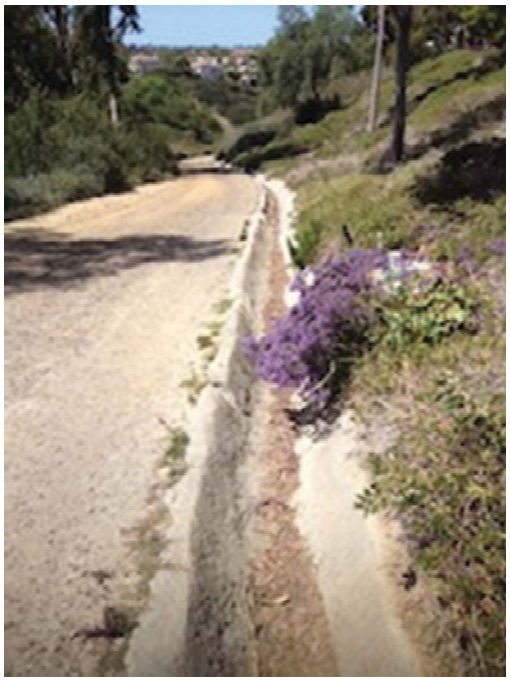

Photo 6. Aquatic Feature 011, concrete v-ditch (non-jurisdictional BMP), facing south. Runs along the access road.

Photo 8. Aquatic Feature 010c, a perennial stream, facing north. Located approximately 42 feet north of Location 35.

Photo 9. Aquatic Feature 016a, a concrete v-ditch (non-jurisdictional BMP) facing northeast. Located approximately 105 feet northeast of access road.

Photo 10. Aquatic Feature 018, an intermittent stream, facing north.

Photo 11. Aquatic Feature 019, a concrete v-ditch (non-jurisdictional BMP), facing east.

Photo 12. Aquatic Feature 020, a perennial stream, facing south. Located approximately 33 feet south of Location 12.

Photo 13. Aquatic Feature 004b, a perennial stream, facing southwest. Located approximately 215 feet north of access road.

Photo 14. Aquatic Feature 023c, a concrete v-ditch (non-jurisdictional BMP), facing south. Runs along the access road.

Photo 15. Aquatic Feature 025b, a concrete v-ditch (non-jurisdictional BMP), facing northwest. Runs along the access road.

Photo 16. Aquatic Feature 026, a concrete v-ditch (non-jurisdictional BMP), facing north. Runs along the access road.

Photo 17. Aquatic Feature 030, a concrete v-ditch (non-jurisdictional BMP), facing southwest.

Photo 18. Aquatic Feature 032, an ephemeral stream, facing east.

Photo 19. Aquatic Feature 035a/b, an ephemeral stream, facing east.

Photo 20. Aquatic Feature 036a, a concrete v-ditch (non-jurisdictional BMP), facing north.

Photo 21. Aquatic Feature 037, an erosional feature, facing south. Aquatic feature bisects access road.

Photo 22. Aquatic Feature 041, a swale, facing south.

Photo 23. Aquatic Feature 042, an ephemeral stream, facing east. Located approximately 160 feet southeast of access road.

Photo 24. Aquatic Feature 043, a concrete v-ditch (non-jurisdictional BMP), facing south.

Photo 25. Aquatic Feature 045, an ephemeral stream, facing west. Aquatic feature bisects access road.

Photo 26. Aquatic Feature 048, an erosional feature, facing west. Aquatic feature bisects access road.

Photo 27. Aquatic Feature 049, a perennial stream, facing southeast. Aquatic feature crosses access road.

Photo 28. Aquatic Feature 053, a swale, facing southwest. Located approximately 170 feet northwest of Location 71.1.

Photo 28. Aquatic Feature 055, a swale, facing southwest. Located approximately 98 feet northwest of Location 72.

Photo 29. Aquatic Feature 056, an ephemeral stream, facing west. Located approximately 25 feet south of Location 72.

Photo 30. Aquatic Feature 059, concrete v-ditch (non-jurisdictional BMP), facing northwest. Located approximately 300 feet northwest of access road.

Photo 31. Aquatic Feature 060, an ephemeral stream, facing south. Aquatic feature bisects access road.

Photo 32. Aquatic Feature 064, a swale, facing east. Runs along access road.

Photo 33. Aquatic Feature 066, a perennial stream, facing northeast. Aquatic feature bisects access road.

Photo 36. Aquatic Feature 070, a perennial stream, facing south. Located approximately 610 feet west of Location 87.

Photo 37. Aquatic Feature 071, an ephemeral stream, facing south. Aquatic resource bisects access road.

Photo 38. Aquatic Feature 072, an ephemeral stream, facing east. Located approximately 5 feet south of access road.

Photo 39. Aquatic Feature 073, an ephemeral stream, facing east. Aquatic resource bisects access road.

Photo 40. Aquatic Feature 074, an ephemeral stream, facing north. Aquatic resource bisects the access road.

Photo 41. Aquatic Feature 075, an ephemeral stream, facing northeast. Aquatic resource bisects access road.

Photo 42. Aquatic Feature 076, an ephemeral stream, facing northeast. Aquatic resource bisects access road.

Photo 43. Aquatic Feature 077, an erosional rill, facing west. Aquatic resource begins at access road.

Photo 44. Aquatic Feature 078, an ephemeral stream, facing northwest. Aquatic resource bisects access road.

Photo 45. Aquatic Feature 079, an ephemeral stream, facing north. Aquatic resource bisects access road.

Photo 46. Aquatic Feature 080, an ephemeral stream, facing north. Aquatic resource bisects access road.

Photo 47. Aquatic Feature 081, an ephemeral stream, facing northeast. Aquatic resource bisects access road.

Photo 48. Aquatic Feature 082, an ephemeral stream, facing west. Aquatic resource bisects access road.

Photo 49. Aquatic Feature 083, an ephemeral stream, facing west. Aquatic resource bisects access road.

Photo 50. Aquatic Feature 084, an ephemeral stream, facing north. Runs along access road.

Photo 51. Aquatic Feature 085a, a swale, facing south.

Photo 52. Aquatic Feature 086, an ephemeral stream, facing north. Aquatic resource bisects access road.

Photo 53. Aquatic Feature 087, an erosional feature, facing east. Aquatic resources begins along the south side of the access road.

Photo 53. Aquatic Feature 088a, an ephemeral stream, facing east. Aquatic resource begins along the north side of the access road and bisects lower access road.

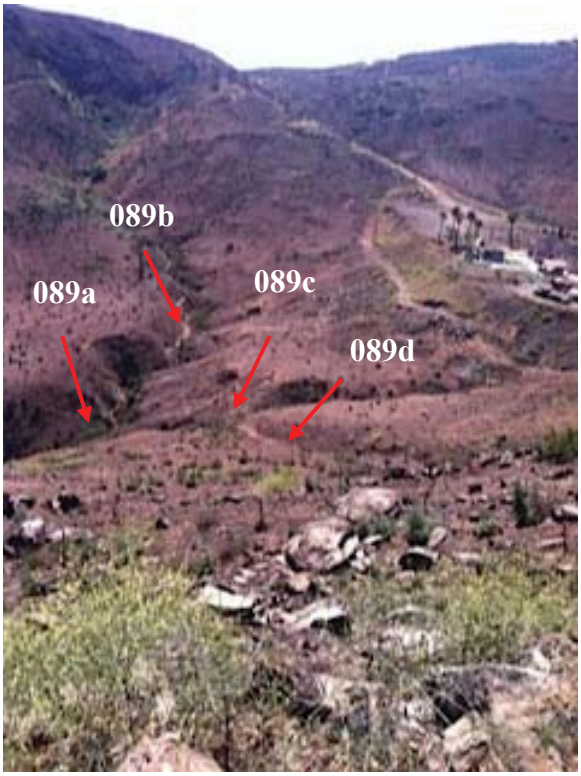

Photo 54. Aquatic Feature 089a -089d, ephemeral streams, facing southwest. Distances vary from access road and work areas. Refer to Table 1.

Photo 55. Aquatic Feature 090, an ephemeral stream, facing north. Aquatic resource bisects access road.

Photo 56. Aquatic Feature 091, an ephemeral stream, facing north. Aquatic resource bisects access road.

Photo 57. Aquatic Feature 092, an ephemeral stream, facing southeast. Aquatic resource bisects access road.

Photo 58. Aquatic Feature 093, an ephemeral stream, facing west. Aquatic resource bisects access road.

Photo 59. Aquatic Feature 094, an ephemeral stream, facing west. Aquatic resource starts south of access road.

Photo 60. Aquatic Feature 095, an ephemeral stream, facing south. Portions of the aquatic resource occur within the road buffer.

Photo 61. Aquatic Feature 096, an ephemeral stream, facing north. Located approximately 985 feet west of Location 90.

Photo 62. Aquatic Feature 097, an ephemeral stream, facing north. Aquatic resource bisects access road.

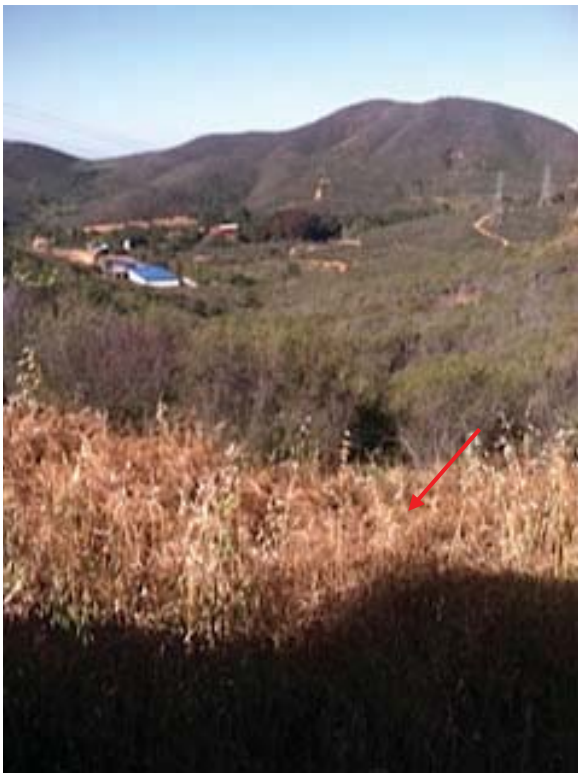

Photo 63. Aquatic Feature 098, an ephemeral stream, facing south. Aquatic resource bisects access road.

Photo 64. Aquatic Feature 099, an ephemeral stream, facing south. Aquatic resource bisects access road.

Photo 65. Aquatic Feature 100, an ephemeral stream, facing south. Located approximately 525 feet west of Location 92.

Photo 66. Aquatic Feature 101, an ephemeral stream, facing south. Aquatic resource bisects access road.

Photo 67. Aquatic Feature 102, an ephemeral stream, facing north. Aquatic resource bisects access road.

Photo 68. Aquatic Feature 103a, open water, facing north. Aquatic resource bisects access road.

Photo 69. Aquatic Feature 103b, a perennial stream, facing south. Aquatic resource bisects access road.

Photo 70. Aquatic Feature 104a, an ephemeral stream, facing north. Located approximately 95 feet west of Location 107.

Photo 71. Aquatic Feature 104a, facing north. Located approximately 95 feet west of Location 107.

Photo 72. Aquatic Feature 104b, a perennial stream, facing south. Located approximately 95 feet west of Location 107.

Photo 73. Aquatic Feature 104b, a perennial stream, facing east. Located approximately 95 feet west of Location 107.

Photo 74. Aquatic Feature 106, a concrete v-ditch (non-jurisdictional BMP), facing west. Located approximately 45 feet west of access road.

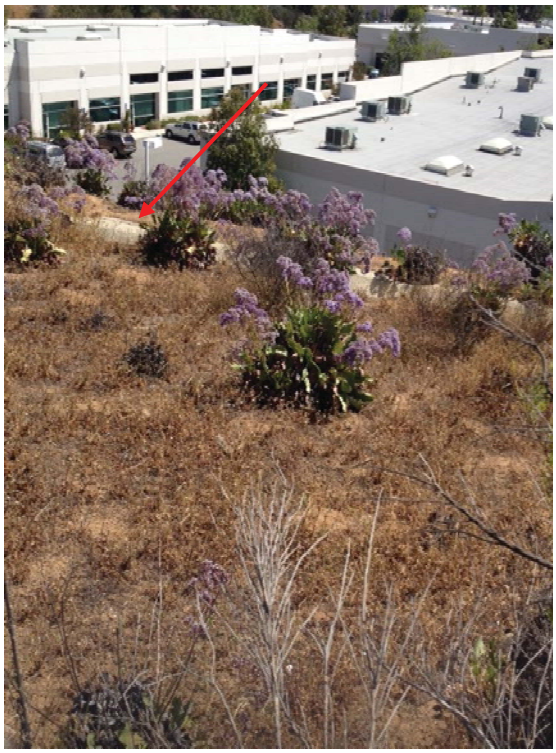

Photo 75. Aquatic Feature 109, a concrete v-ditch (non-jurisdictional BMP), facing northeast. Runs along access road.

Photo 76. Aquatic Feature 126, a detention basin at proposed staging yard which contains wetland vegetation and hydrology. Conditions in this basin are similar to the other basins/wetlands within the proposed staging yards (Feature 123, 124, 126, 127, and 128).

Appendix C
Wetland Determination Forms

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: SDG&E TL 6975 San Marcos to Escondido | City/County: San Diego County | Sampling Date: 4/24/2017

Applicant/Owner: San Diego Gas and Electric (SDG&E) | State: CA | Sampling Point: W1-1

Investigator(s): L.Cervantes and B.Bowen | Section, Township, Range: S16 T12S R3W

Landform (hillslope, terrace, etc.): Drainage | Local relief (concave, convex, none): none | Slope (%): 0

Subregion (LRR): C - Mediterranean California | Lat: 33.131131 | Long: -117.202504 | Datum: NAD 1963

Soil Map Unit Name: Placentia sandy loam and Las Flores loamy fine sand | NWI classification: Not Listed

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (●) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes (●)	No ( )	
Hydric Soil Present?	Yes (●)	No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Wetland Hydrology Present?	Yes (●)	No ( )	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Washingtonia robusta*	15	Yes	FACW
2.			
3.			
4.			
Total Cover:	15 %		
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:	%		
Herb Stratum			
1. *Typha domingensis*	60	Yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	60 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum ____ % | % Cover of Biotic Crust ____ %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	60	x 1 =	60
FACW species	15	x 2 =	30
FAC species		x 3 =	0
FACU species		x 4 =	0
UPL species		x 5 =	0
Column Totals:	75 (A)		90 (B)

Prevalence Index = B/A = 1.20

Hydrophytic Vegetation Indicators:

- [x] Dominance Test is >50%
- [x] Prevalence Index is ≤3.0[1]
- [ ] Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: The sample area is dominated with OBL vegetation, therefore the area collects enough water to maintain hydrophytic vegetation.

SOIL

Sampling Point: W1-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks: No soil sample pit was dug because there was surface water present, thus soil was assumed hydric.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☒ Surface Water (A1)
- ☒ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ◉ No ○	Depth (inches):	1 foot
Water Table Present?	Yes ◉ No ○	Depth (inches):	surface
Saturation Present? (includes capillary fringe)	Yes ◉ No ○	Depth (inches):	surface

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Primary wetland hydrology indicators were observed within the sample area.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: SDG&E TL 6975 San Marcos to Escondido City/County: San Diego County Sampling Date: 4/24/2017

Applicant/Owner: San Diego Gas and Electric (SDG&E) State: CA Sampling Point: W1-2

Investigator(s): L.Cervantes and B.Bowen Section, Township, Range: S16 T12S R3W

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): convex Slope (%): 0

Subregion (LRR): C - Mediterranean California Lat: 33.131141 Long: -117.202471 Datum: NAD 1963

Soil Map Unit Name: Placentia sandy loam NWI classification: Not Listed

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (●) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ( )	No (●)	
Hydric Soil Present?	Yes ( )	No (●)	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Wetland Hydrology Present?	Yes ( )	No (●)	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:	%		
Herb Stratum			
1. *Carpobrotus edulis*	60	Yes	Not Listed
2. *Hirschfeldia incana*	10	No	Not Listed
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	70 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum ____ % % Cover of Biotic Crust ____ %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species		x 2 =	0
FAC species		x 3 =	0
FACU species		x 4 =	0
UPL species	70	x 5 =	350
Column Totals:	70 (A)		350 (B)

Prevalence Index = B/A = 5.00

Hydrophytic Vegetation Indicators:

- (●) Dominance Test is >50%
- (●) Prevalence Index is ≤3.0[1]
- [ ] Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks: The sample is dominated with upland vegetation therefore the sample area does not collect enough water to support hydrophytic vegetation.

SOIL

Sampling Point: W1-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Fill/Rocks

Depth (inches): Surface

Hydric Soil Present? Yes ○ No ◉

Remarks: No soil sample pit was dug because it was too difficult to dig into the soil. Soil was assumed to be non-hydric.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: W1-2 is approximately 5 feet higher in eleavtion from W1-1. No wetland hydrology indicators were observed within the sample area.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: SDG&E TL 6975 San Marcos to Escondido | City/County: San Diego County | Sampling Date: 4/24/2017

Applicant/Owner: San Diego Gas and Electric (SDG&E) | State: CA | Sampling Point: W2-1

Investigator(s): L.Cervantes and B.Bowen | Section, Township, Range: S16 T12S R3W

Landform (hillslope, terrace, etc.): Floodplain/draiange | Local relief (concave, convex, none): none | Slope (%): 0

Subregion (LRR): C - Mediterranean California | Lat: 33.130375 | Long: -117.200511 | Datum: NAD 1963

Soil Map Unit Name: Grangeville fine sandy loam | NWI classification: Freshwater Forested/Shrub

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (●) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes (●)	No ( )	
Hydric Soil Present?	Yes (●)	No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Wetland Hydrology Present?	Yes (●)	No ( )	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix lasiolepis*	40	Yes	FACW
2.			
3.			
4.			
Total Cover:	40 %		
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:	%		
Herb Stratum			
1. *Scirpus californicus*	40	Yes	OBL
2. *Raphanus raphanistrum*	5	No	Not Listed
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	45 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum ____ % | % Cover of Biotic Crust ____ %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	40	x 1 =	40
FACW species	40	x 2 =	80
FAC species		x 3 =	0
FACU species		x 4 =	0
UPL species	5	x 5 =	25
Column Totals:	85 (A)		145 (B)

Prevalence Index = B/A = 1.71

Hydrophytic Vegetation Indicators:

- [x] Dominance Test is >50%
- [x] Prevalence Index is ≤3.0[1]
- [ ] Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: Sample area is dominated with OBL and FACW vegetation, therefor the sample area collects enough water to maintain hydrophtic vegetation.

SOIL

Sampling Point: W2-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☒ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks: No soil sample pit was dug. Surface water was approximately 1 foot deep and a hydrogen sulfide odor was present at the surface.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☒ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☒ Sediment Deposits (B2) (**Riverine**)
- ☒ Drift Deposits (B3) (**Riverine**)
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ◉	No ○	Depth (inches):	1 foot
Water Table Present?	Yes ◉	No ○	Depth (inches):	Surface
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches):	Surface

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Primary and more than 2 secondary wetland hydrology indicators were observed at sample point W2-1.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: SDG&E TL 6975 San Marcos to Escondido | City/County: San Diego County | Sampling Date: 4/24/2017

Applicant/Owner: San Diego Gas and Electric (SDG&E) | State: CA | Sampling Point: W2-2

Investigator(s): L.Cervantes and B.Bowen | Section, Township, Range: S16 T12S R3W

Landform (hillslope, terrace, etc.): terrace | Local relief (concave, convex, none): convex | Slope (%): 5

Subregion (LRR): C - Mediterranean California | Lat: 33.130384 | Long: -117.200415 | Datum: NAD 1963

Soil Map Unit Name: Grangeville fine sandy loam | NWI classification: Not Listed

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (●) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ( )	No (●)	
Hydric Soil Present?	Yes ( )	No (●)	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Wetland Hydrology Present?	Yes ( )	No (●)	

Remarks: Sample point W2-2 terrace was located approximately 5 feet from W2-1.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:	%		
Herb Stratum			
1. *Raphanus raphanistrum*	15	Yes	Not Listed
2. *Bromus diandrus*	15	Yes	Not Listed
3. *Cynara cardunculus*	10	Yes	Not Listed
4. *Cirsium vulgare*	5	No	FACU
5. *Foeniculum vulgare*	5	No	Not Listed
6.			
7.			
8.			
Total Cover:	50 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum ____ % | % Cover of Biotic Crust ____ %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species		x 2 =	0
FAC species		x 3 =	0
FACU species	5	x 4 =	20
UPL species	45	x 5 =	225
Column Totals:	50 (A)		245 (B)

Prevalence Index = B/A = 4.90

Hydrophytic Vegetation Indicators:

- (●) Dominance Test is >50%
- (●) Prevalence Index is ≤3.0[1]
- [ ] Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks: Sample point W2-2 is dominated with upland vegetation therefore does not collect enough water to support hydrophytic vegetation.

SOIL

Sampling Point: W2-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-16	10 YR 3/6	100					Loamy Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks: No hydric soil indicators were observed in soil sample pit W2-2.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No primary or secondary wetland hydrology indicators were observed at sample point W2-2.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: SDG&E TL 6975 San Marcos to Escondido | City/County: San Diego County | Sampling Date: 4/24/2017

Applicant/Owner: San Diego Gas and Electric (SDG&E) | State: CA | Sampling Point: W3-1

Investigator(s): L.Cervantes and B.Bowen | Section, Township, Range: S17 T12S R3W

Landform (hillslope, terrace, etc.): Drainage | Local relief (concave, convex, none): none | Slope (%): 0

Subregion (LRR): C - Mediterranean California | Lat: 33.131670 | Long: -117.220563 | Datum: NAD 1963

Soil Map Unit Name: Gaviota fine sandy loam | NWI classification: Freshwater Forested/Shrub

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (●) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes (●)	No ( )	
Hydric Soil Present?	Yes (●)	No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Wetland Hydrology Present?	Yes (●)	No ( )	

Remarks: Sample point taken within drainage.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1. *Tamarix ramosissima*	10	Yes	FAC
2. *Baccharis sarothroides*	5	Yes	FACU
3.			
4.			
5.			
Total Cover:	15 %		
Herb Stratum			
1. *Typha domingensis*	60	Yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	60 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum 40 % | % Cover of Biotic Crust %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	60	x 1 =	60
FACW species		x 2 =	0
FAC species	10	x 3 =	30
FACU species	5	x 4 =	20
UPL species		x 5 =	0
Column Totals:	75 (A)		110 (B)

Prevalence Index = B/A = 1.47

Hydrophytic Vegetation Indicators:

- [x] Dominance Test is >50%
- [x] Prevalence Index is ≤3.0[1]
- [ ] Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: Sample area 3-1 is dominated with OBL and FAC vegetation therefore the sample area collects enough water to support hydrophytic vegetation.

SOIL

Sampling Point: W3-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
N/A								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☒ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: riprap rocks

Depth (inches): at surface

Hydric Soil Present? Yes ◉ No ○

Remarks: No soil sample pit was dug for W3-1. Riprap and surface water was present at the sample point location. In addition, hydrophytic vegetation and hydrology met therefore soil assumed to be hydric.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☒ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☒ Drift Deposits (B3) (**Riverine**)
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ◉ No ○ Depth (inches): 6

Water Table Present? Yes ◉ No ○ Depth (inches): surface

Saturation Present? (includes capillary fringe) Yes ◉ No ○ Depth (inches): surface

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Primary and secondary wetland hydrology indicators were observed within the sample area.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: SDG&E TL 6975 San Marcos to Escondido | City/County: San Diego County | Sampling Date: 4/24/2017

Applicant/Owner: San Diego Gas and Electric (SDG&E) | State: CA | Sampling Point: W3-2

Investigator(s): L.Cervantes and B.Bowen | Section, Township, Range: S17 T12S R3W

Landform (hillslope, terrace, etc.): hillslope | Local relief (concave, convex, none): convex | Slope (%): 20

Subregion (LRR): C - Mediterranean California | Lat: 33.131711° | Long: -117.220508° | Datum: NAD 1963

Soil Map Unit Name: Gaviota fine sandy loam | NWI classification: Not Listed

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (●) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ( )	No (●)	
Hydric Soil Present?	Yes ( )	No (●)	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Wetland Hydrology Present?	Yes ( )	No (●)	

Remarks: Sample point taken at top of hillslope outside of drainage.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1. *Rhus integrifolia*	25	Yes	Not Listed
2. *Acacia sp.*	25	Yes	Not Listed
3.			
4.			
5.			
Total Cover:	50 %		
Herb Stratum			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	%		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum 100% % Cover of Biotic Crust %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species		x 2 =	0
FAC species		x 3 =	0
FACU species		x 4 =	0
UPL species	50	x 5 =	250
Column Totals:	50 (A)		250 (B)

Prevalence Index = B/A = 5.00

Hydrophytic Vegetation Indicators:

- (●) Dominance Test is >50%
- (●) Prevalence Index is ≤3.0[1]
- [ ] Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks: No OBL, FACW or FAC vegetation was observed within sample area W3-2.

SOIL

Sampling Point: W3-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-16	10 YR 5/4	98	7.5 YR 6/8	2	C	M	Loamy Clay	Soil was moist from irrigation

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks: Redox was observed, however hillslopes are irrigated along roadside resulting in excessive amount of runoff entering this area. Soils did not meet for any of the hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No primary nor secondary wetland hydrology indicators were observed with the W3-2 sample are. The sample area was located approximately 10 feet higher in elevation from the drainage.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: SDG&E TL 6975 San Marcos to Escondido | City/County: San Diego County | Sampling Date: 4/24/2017

Applicant/Owner: San Diego Gas and Electric (SDG&E) | State: CA | Sampling Point: W4-1

Investigator(s): L.Cervantes and B.Bowen | Section, Township, Range: S17 T12S R3W

Landform (hillslope, terrace, etc.): Drainage | Local relief (concave, convex, none): none | Slope (%): 0

Subregion (LRR): C - Mediterranean California | Lat: 33.131205 | Long: -117.220405 | Datum: NAD 1963

Soil Map Unit Name: Visalia sandy loam | NWI classification: Not Listed

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (●) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes (●)	No ( )	
Hydric Soil Present?	Yes (●)	No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Wetland Hydrology Present?	Yes (●)	No ( )	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix gooddingii*	25	Yes	FACW
2.			
3.			
4.			
Total Cover:	25 %		
Sapling/Shrub Stratum			
1. *Pluchea sericea*	10	Yes	FACW
2.			
3.			
4.			
5.			
Total Cover:	10 %		
Herb Stratum			
1. *Typha domingensis*	40	Yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	40 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum ____ % | % Cover of Biotic Crust ____ %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	40	x 1 =	40
FACW species	35	x 2 =	70
FAC species		x 3 =	0
FACU species		x 4 =	0
UPL species		x 5 =	0
Column Totals:	75 (A)		110 (B)

Prevalence Index = B/A = 1.47

Hydrophytic Vegetation Indicators:

- [X] Dominance Test is >50%
- [X] Prevalence Index is ≤3.0[1]
- [ ] Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: OBL and FACW vegetation dominate the sample are W4-1, therefore the sample area collects enough water to support hydrophytic vegetation.

SOIL

Sampling Point: W4-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10 YR 5/6	100					sand	
4-16	10 YR 4/3	90	7.5 YR 5/8	10	C	M	loamy/Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☒ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks: No hydric soil indicators were observed in the soil sample. Saturation was at 6 inches thus soil support anaerobic conditions and due to the presence of hydrophytic vegetation and hydrology; soils are assumed to be a hydric soil.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☒ Sediment Deposits (B2) (**Riverine**)
- ☒ Drift Deposits (B3) (**Riverine**)
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ◉ No ○ Depth (inches): 6

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Primary and more than two secondary wetland hydrology indicators were observed within sample area W4-1.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: SDG&E TL 6975 San Marcos to Escondido City/County: San Diego County Sampling Date: 4/24/2017

Applicant/Owner: San Diego Gas and Electric (SDG&E) State: CA Sampling Point: W4-2

Investigator(s): L.Cervantes and B.Bowen Section, Township, Range: S17 T12S R3W

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): convex Slope (%): 10

Subregion (LRR): C - Mediterranean California Lat: 33.131162 Long: -117.220373 Datum: NAD 1963

Soil Map Unit Name: Visalia sandy loam NWI classification: Not Listed

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (●) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ( )	No (●)	
Hydric Soil Present?	Yes ( )	No (●)	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Wetland Hydrology Present?	Yes ( )	No (●)	

Remarks: Sample point W4-2 was located approximately 5 feet higher in elevation than W4-1.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1. *Rhus integrifolia*	25	Yes	Not Listed
2. *Helianthus californicus*	25	Yes	OBL
3.			
4.			
5.			
Total Cover:	50 %		
Herb Stratum			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	%		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum % % Cover of Biotic Crust %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	25	x 1 =	25
FACW species		x 2 =	0
FAC species		x 3 =	0
FACU species		x 4 =	0
UPL species	25	x 5 =	125
Column Totals:	50 (A)		150 (B)

Prevalence Index = B/A = 3.00

Hydrophytic Vegetation Indicators:

- [ ] Dominance Test is >50%
- [x] Prevalence Index is ≤3.0[1]
- [ ] Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks: The sample area supports both OBL and upland vegetation, both types are equally dominant within the sample area and do not meet for dominance. Irrigation is present along the hillslopes which attribute to the dominance of Helianthus within the area.

SOIL

Sampling Point: W4-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10 YR 5/4	100					Loamy Clay	Soil was rocky and compact

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Rock/Cobble and Compact Soils

Depth (inches): 8 inches

Hydric Soil Present? Yes ○ No ◉

Remarks: No hydric soil indicators were observed in the soil sample.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No primary nor secondary wetland indicators were observed within the sample area located along the hill slope approximately 5 feet above elevation from W4-1.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: SDG&E TL 6975 San Marcos to Escondido | City/County: San Diego County | Sampling Date: 4/24/2017

Applicant/Owner: San Diego Gas and Electric (SDG&E) | State: CA | Sampling Point: W5-1

Investigator(s): L.Cervantes and B.Bowen | Section, Township, Range: S17 T12S R3W

Landform (hillslope, terrace, etc.): Drainage | Local relief (concave, convex, none): none | Slope (%): 0

Subregion (LRR): C - Mediterranean California | Lat: 33.131788 | Long: -117.219533 | Datum: NAD 1963

Soil Map Unit Name: Gaviota fine sandy loam | NWI classification: Not Listed

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (●) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes (●)	No ( )	
Hydric Soil Present?	Yes (●)	No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Wetland Hydrology Present?	Yes (●)	No ( )	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix gooddingii*	25	Yes	FACW
2. *Washingtonia robusta*	15	Yes	FACW
3.			
4.			
Total Cover:	40 %		
Sapling/Shrub Stratum			
1. *Tamarix ramosissima*	5	Yes	FAC
2.			
3.			
4.			
5.			
Total Cover:	5 %		
Herb Stratum			
1. *Bromus diandrus*	5	Yes	Not Listed
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	5 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum ____ % | % Cover of Biotic Crust ____ %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species	40	x 2 =	80
FAC species	5	x 3 =	15
FACU species		x 4 =	0
UPL species	5	x 5 =	25
Column Totals:	50 (A)		120 (B)

Prevalence Index = B/A = 2.40

Hydrophytic Vegetation Indicators:

- [X] Dominance Test is >50%
- [X] Prevalence Index is ≤3.0[1]
- [ ] Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: The sample area supports FACW, FAC and upland vegetation, but is dominated with FACW vegetation. Therefore the sample area collects enough water to support wetland hydrology but is also dry enough to support upland vegetation.

SOIL

Sampling Point: W5-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	10 YR 4/3	95	5 YR 5/6	5	C	M	Loamy Clay	Soil was moist, Hydrogen Sulfide odor present

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☒ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks: Hydrogen sulfide odor could be smelled from the sample pit, which is an indicator for hydric soils.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☒ Sediment Deposits (B2) (**Riverine**)
- ☒ Drift Deposits (B3) (**Riverine**)
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):
Water Table Present?	Yes ◉	No ○	Depth (inches): 10
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches): 4

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Primary and more than two secondary wetland indicators were observed within the sample area.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: SDG&E TL 6975 San Marcos to Escondido | City/County: San Diego County | Sampling Date: 4/24/2017

Applicant/Owner: San Diego Gas and Electric (SDG&E) | State: CA | Sampling Point: W5-2

Investigator(s): L.Cervantes and B.Bowen | Section, Township, Range: S17 T12S R3W

Landform (hillslope, terrace, etc.): Hillslope | Local relief (concave, convex, none): convex | Slope (%): 0

Subregion (LRR): C - Mediterranean California | Lat: 33.131897 | Long: -117.219587 | Datum: NAD 1963

Soil Map Unit Name: Gaviota fine sandy loam | NWI classification: Not Listed

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (●) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes (●)	No ( )	
Hydric Soil Present?	Yes ( )	No (●)	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Wetland Hydrology Present?	Yes ( )	No (●)	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1. *Helianthus californicus*	40	Yes	OBL
2. *Tamarix ramosissima*	5	No	FAC
3. *Baccharis pilularis*	5	No	Not Listed
4. *Rhus integrifolia*	5	No	Not Listed
5.			
Total Cover:	55 %		
Herb Stratum			
1. *Cortaderia selloana*	5	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	5 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum ____ % | % Cover of Biotic Crust ____ %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	40	x 1 =	40
FACW species		x 2 =	0
FAC species	5	x 3 =	15
FACU species	5	x 4 =	20
UPL species	10	x 5 =	50
Column Totals:	60 (A)		125 (B)

Prevalence Index = B/A = 2.08

Hydrophytic Vegetation Indicators:

- [ ] Dominance Test is >50%
- [x] Prevalence Index is ≤3.0[1]
- [ ] Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: The sample area W5-2 supports OBL, FAC and upland vegetation. Therefore the sample area receives enough water to support OBL and FAC vegetation but is also dry enough to support upland vegetation.

SOIL

Sampling Point: W5-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10 YR 3/3	100					Loamy Clay	Soil was moist, may be from irrigation or urban runoff.

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks: No hydric soil indicators were observed within the soil sample.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No primary nor secondary wetland hydrology indicators were observed with the sample area. Sample area W5-2 was approximately 6 feet higher in elevation than W5-1.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: SDG&E TL 6975 San Marcos to Escondido | City/County: San Diego County | Sampling Date: 4/24/2017

Applicant/Owner: San Diego Gas and Electric (SDG&E) | State: CA | Sampling Point: W6-1

Investigator(s): L.Cervantes and B.Bowen | Section, Township, Range: S18 T12S R3W

Landform (hillslope, terrace, etc.): Drainage | Local relief (concave, convex, none): none | Slope (%): 0

Subregion (LRR): C - Mediterranean California | Lat: 33.128293 | Long: -117.229240 | Datum: NAD 1963

Soil Map Unit Name: Gaviota fine sandy loam | NWI classification: Freshwater Forested/Shrub

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (●) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes (●)	No ( )	
Hydric Soil Present?	Yes (●)	No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Wetland Hydrology Present?	Yes (●)	No ( )	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix lasiolepis*	35	Yes	FACW
2.			
3.			
4.			
Total Cover:	35 %		
Sapling/Shrub Stratum			
1. *Bacchaaris salicifolia*	10	Yes	FAC
2. *Tamarix ramosissima*	3	Yes	FAC
3.			
4.			
5.			
Total Cover:	13 %		
Herb Stratum			
1. *Typha domingensis*	60	Yes	OBL
2. *Juncus acutus*	5	No	FACW
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	65 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum ____ % | % Cover of Biotic Crust ____ %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	60	x 1 =	60
FACW species	40	x 2 =	80
FAC species	13	x 3 =	39
FACU species		x 4 =	0
UPL species		x 5 =	0
Column Totals:	113 (A)		179 (B)

Prevalence Index = B/A = 1.58

Hydrophytic Vegetation Indicators:

- [X] Dominance Test is >50%
- [X] Prevalence Index is ≤3.0[1]
- [ ] Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: The sample area was dominated with OBL,FACW and FAC vegetation, therefore the sample area receives enough water to maintain hydrophytic vegetation.

SOIL

Sampling Point: W6-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks: No soil pit was sampled due to the surface water present. The surface water present was about 4 inches in depth. Riprap was also present in the sample area. Due to the surface water present soil was assumed to be anaerobic and qualify as a hydric soil.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☒ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☒ Drift Deposits (B3) (**Riverine**)
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ◉ No ○	Depth (inches):	4
Water Table Present?	Yes ◉ No ○	Depth (inches):	surface
Saturation Present? (includes capillary fringe)	Yes ◉ No ○	Depth (inches):	surface

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Three primary and two secondary wetland hydrology indicators were observed within the sample area.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: SDG&E TL 6975 San Marcos to Escondido | City/County: San Diego County | Sampling Date: 4/24/2017

Applicant/Owner: San Diego Gas and Electric (SDG&E) | State: CA | Sampling Point: W6-2

Investigator(s): L.Cervantes and B.Bowen | Section, Township, Range: S18 T12S R3W

Landform (hillslope, terrace, etc.): Hillslope | Local relief (concave, convex, none): convex | Slope (%): 0

Subregion (LRR): C - Mediterranean California | Lat: 33.128175 | Long: -117.229152 | Datum: NAD 1963

Soil Map Unit Name: Las Posas stony fine sandy loam | NWI classification: Not Listed

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (●) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ( )	No (●)	
Hydric Soil Present?	Yes ( )	No (●)	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Wetland Hydrology Present?	Yes ( )	No (●)	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1. *Salvia mellifera*	15	Yes	Not Listed
2. *Eriogonum fasciculatum*	10	Yes	Not Listed
3.			
4.			
5.			
Total Cover:	25 %		
Herb Stratum			
1. *Bromus madretensis*	15	Yes	UPL
2. *Bromus diandrus*	10	No	Not Listed
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	25 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum ____ % | % Cover of Biotic Crust ____ %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species		x 2 =	0
FAC species		x 3 =	0
FACU species		x 4 =	0
UPL species	50	x 5 =	250
Column Totals:	50 (A)		250 (B)

Prevalence Index = B/A = 5.00

Hydrophytic Vegetation Indicators:

- (●) Dominance Test is >50%
- (●) Prevalence Index is ≤3.0[1]
- [ ] Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks: The sample area was dominated upland vegetation therefore the sample area does not collect enough water to maintain hydrophytic vegetation.

SOIL

Sampling Point: W6-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10 YR 4/4	100					Loamy Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Cobbles/Fill

Depth (inches): 8

Hydric Soil Present? Yes ○ No ◉

Remarks: Cobble/fill was present at a depth of 8 inches and thus made it difficult to dig past this depth. No hydric soil indicators were observed within the soil sample.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No primary or secondary wetland hydrology indicators were observed in sample area W6-2. W6-2 sample point was approximately 5 feet higher in elevation than W6-1.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: SDG&E TL 6975 San Marcos to Escondido City/County: San Diego County Sampling Date: 4/24/2017

Applicant/Owner: San Diego Gas and Electric (SDG&E) State: CA Sampling Point: W7-1

Investigator(s): L.Cervantes and B.Bowen Section, Township, Range: S18 T12S R3W

Landform (hillslope, terrace, etc.): Drainage Local relief (concave, convex, none): none Slope (%): 0

Subregion (LRR): C - Mediterranean California Lat: 33.127350° Long: -117.228166° Datum: NAD 1963

Soil Map Unit Name: Las Posas stony fine sandy loam NWI classification: Not Listed

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (●) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes (●)	No ( )	
Hydric Soil Present?	Yes (●)	No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Wetland Hydrology Present?	Yes (●)	No ( )	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix lasiolepis*	65	Yes	FACW
2.			
3.			
4.			
Total Cover:	65 %		
Sapling/Shrub Stratum			
1. *Baccharis salicifolia*	30	Yes	FAC
2.			
3.			
4.			
5.			
Total Cover:	30 %		
Herb Stratum			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	%		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum % % Cover of Biotic Crust %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species	65	x 2 =	130
FAC species	30	x 3 =	90
FACU species		x 4 =	0
UPL species		x 5 =	0
Column Totals:	95 (A)		220 (B)

Prevalence Index = B/A = 2.32

Hydrophytic Vegetation Indicators:

- [X] Dominance Test is >50%
- [X] Prevalence Index is ≤3.0[1]
- [ ] Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: The sample area was dominated with FACW and FAC vegetation therefore the sample area collects enough water to maintain hydrophytic vegetation. Sample area did not include the understory.

SOIL

Sampling Point: W7-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks: No sample soil pit was taken because the sample area was full of rip rap within the drainage and banks. The sample area is dominated with wetland vegetation and has wetland hydrology indicators present within the sample area, thus we can assume that the soil would be anaerobic and meet the requirements for a hydric soil.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☒ Water Marks (B1) (**Riverine**)
- ☒ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Two secondary wetland hydrology indicators were observed within the sample area W7-1.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: SDG&E TL 6975 San Marcos to Escondido | City/County: San Diego County | Sampling Date: 4/24/2017

Applicant/Owner: San Diego Gas and Electric (SDG&E) | State: CA | Sampling Point: W7-2

Investigator(s): L.Cervantes and B.Bowen | Section, Township, Range: S18 T12S R3W

Landform (hillslope, terrace, etc.): Terrace | Local relief (concave, convex, none): none | Slope (%): 0

Subregion (LRR): C - Mediterranean California | Lat: 33.127435 | Long: -117.228110 | Datum: NAD 1963

Soil Map Unit Name: Las Posas stony fine sandy loam | NWI classification: Not Listed

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (●) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ( )	No (●)	
Hydric Soil Present?	Yes ( )	No (●)	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Wetland Hydrology Present?	Yes ( )	No (●)	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1. *Baccharis pilularus*	15	Yes	Not Listed
2.			
3.			
4.			
5.			
Total Cover:	15 %		
Herb Stratum			
1. *Bromus madretensis*	60	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	60 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum ____ % | % Cover of Biotic Crust ____ %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species		x 2 =	0
FAC species		x 3 =	0
FACU species		x 4 =	0
UPL species	75	x 5 =	375
Column Totals:	75 (A)		375 (B)

Prevalence Index = B/A = 5.00

Hydrophytic Vegetation Indicators:

- (●) Dominance Test is >50%
- (●) Prevalence Index is ≤3.0[1]
- [ ] Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks: The sample area was dominated with upland vegetation therefore the sample area does not collect enough water to maintain hydrophytic vegetation.

SOIL

Sampling Point: W7-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	2.5 YR 6/2	100					Loamy Clay	Soil was dry

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks: Soils were too compact and could not dig past a depth of 6 inches. No hydric soil indicators were observed within the soil sample.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No primary nor secondary indicators were observed within the sample area W7-2. Sample point W7-2 was approximately 4 feet higher in elevation than W7-1.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: SDG&E TL 6975 San Marcos to Escondido | City/County: San Diego County | Sampling Date: 4/24/2017

Applicant/Owner: San Deigo Gas and Electric (SDG&E) | State: CA | Sampling Point: W8-1

Investigator(s): L.Cervantes and B.Bowen | Section, Township, Range: S29 T12S R3W

Landform (hillslope, terrace, etc.): Drainage | Local relief (concave, convex, none): none | Slope (%): 0

Subregion (LRR): C - Mediterranean California | Lat: 33.102307° | Long: -117.214936° | Datum: NAD 1963

Soil Map Unit Name: Gravel pits | NWI classification: Freshwater Forested/Shrub

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (●) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes (●)	No ( )	
Hydric Soil Present?	Yes (●)	No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Wetland Hydrology Present?	Yes (●)	No ( )	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix gooddingii*	30	Yes	FACW
2. *Salix lasiolepis*	30	Yes	FACW
3.			
4.			
Total Cover:	60 %		
Sapling/Shrub Stratum			
1. *Baccharis salicifolia*	40	Yes	FAC
2.			
3.			
4.			
5.			
Total Cover:	40 %		
Herb Stratum			
1. *Bromus diandrus*	60	Yes	Not Listed
2. *Eriogonum fasciculatum*	5	No	Not Listed
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	65 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum ____ % | % Cover of Biotic Crust ____ %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species	60	x 2 =	120
FAC species	40	x 3 =	120
FACU species		x 4 =	0
UPL species	65	x 5 =	325
Column Totals:	165 (A)		565 (B)

Prevalence Index = B/A = 3.42

Hydrophytic Vegetation Indicators:

- [X] Dominance Test is >50%
- [ ] Prevalence Index is ≤3.0[1]
- [ ] Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: The sample area was dominated with FACW and FAC vegetation therefore the sample area collects enough water to maintain hydrophytic vegetation.

SOIL

Sampling Point: W8-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks: Could not gain access to sample soil point. The sample area has wetland vegetation and has primary wetland hydrology indicators therefore soil was assumed hydric.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☒ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☒ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☒ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Algae (Other) was also present within the sample area. Primary wetland hydrology indicators were observed within the sample area.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: SDG&E TL 6975 San Marcos to Escondido City/County: San Diego County Sampling Date: 4/24/2017

Applicant/Owner: San Diego Gas and Electric (SDG&E) State: CA Sampling Point: W8-2

Investigator(s): L.Cervantes and B.Bowen Section, Township, Range: S29 T12S R3W

Landform (hillslope, terrace, etc.): Hillside Local relief (concave, convex, none): convex Slope (%): 20

Subregion (LRR): C - Mediterranean California Lat: 33.101900 Long: -117.214962 Datum: NAD 1963

Soil Map Unit Name: Gravel Pits NWI classification: Not Listed

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (•) No ( ) (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (•) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ( )	No (•)	
Hydric Soil Present?	Yes ( )	No (•)	**Is the Sampled Area within a Wetland?** Yes ( ) No (•)
Wetland Hydrology Present?	Yes ( )	No (•)	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1. *Artemisia californica*	15	Yes	Not Listed
2. *Salvia mellifera*	10	Yes	Not Listed
3.			
4.			
5.			
Total Cover:	25 %		
Herb Stratum			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	%		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum % % Cover of Biotic Crust %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species		x 2 =	0
FAC species		x 3 =	0
FACU species		x 4 =	0
UPL species	25	x 5 =	125
Column Totals:	25 (A)		125 (B)

Prevalence Index = B/A = 5.00

Hydrophytic Vegetation Indicators:

- [•] Dominance Test is >50%
- [•] Prevalence Index is ≤3.0[1]
- [ ] Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ( ) No (•)

Remarks: The sample area was dominated with upland vegetation therefore the sample area does not collects enough water to maintain hydrophytic vegetation.

SOIL

Sampling Point: W8-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks: Soil sample area was too rocky and compact to dig a soil sample pit. No wetland vegetation or wetland hydrology indicators were observed within the sample area thus the soil was assumed non-hydric.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No primary nor secondary wetland hydrology indicators were observed within the sample area.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: SDG&E TL 6975 San Marcos to Escondido | City/County: San Diego County | Sampling Date: 4/24/2017

Applicant/Owner: San Diego Gas and Electric (SDG&E) | State: CA | Sampling Point: W9-1

Investigator(s): L.Cervantes and B.Bowen | Section, Township, Range: S33 T12S R3W

Landform (hillslope, terrace, etc.): Drainage | Local relief (concave, convex, none): none | Slope (%): 0

Subregion (LRR): C - Mediterranean California | Lat: 33.094534 | Long: -117.206936 | Datum: NAD 1963

Soil Map Unit Name: San Miguel rocky silt loam | NWI classification: Freshwater Forested/Shrub

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (●) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes (●)	No ( )	
Hydric Soil Present?	Yes (●)	No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Wetland Hydrology Present?	Yes (●)	No ( )	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix lasiolepis*	50	Yes	FACW
2.			
3.			
4.			
Total Cover:	50 %		
Sapling/Shrub Stratum			
1. *Baccharis salicifolia*	15	Yes	FAC
2.			
3.			
4.			
5.			
Total Cover:	15 %		
Herb Stratum			
1. *Juncus acutus*	5	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	5 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum ____ % | % Cover of Biotic Crust ____ %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species	55	x 2 =	110
FAC species	15	x 3 =	45
FACU species		x 4 =	0
UPL species		x 5 =	0
Column Totals:	70 (A)		155 (B)

Prevalence Index = B/A = 2.21

Hydrophytic Vegetation Indicators:

- [X] Dominance Test is >50%
- [X] Prevalence Index is ≤3.0[1]
- [ ] Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: The sample area was dominated with FACW and FAC vegetation therefore the sample area collects enough water to maintain hydrophytic vegetation.

SOIL

Sampling Point: W9-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Rip-rap

Depth (inches): surface

Hydric Soil Present? Yes ◉ No ○

Remarks: A restrictive layer of rip-rap was present at the sample point, thus no pit was sampled. The sample area had wetland vegetation and two secondary wetland hydrology indicators present within the sample area thus it is assumed that the soil would be hydric.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☒ Sediment Deposits (B2) (**Riverine**)
- ☒ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Two secondary wetland hydrology indicators were observed within the sample area.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: SDG&E TL 6975 San Marcos to Escondido City/County: San Diego County Sampling Date: 4/24/2017

Applicant/Owner: San Diego Gas and Electric (SDG&E) State: CA Sampling Point: W9-2

Investigator(s): L.Cervantes and B.Bowen Section, Township, Range: S33 T12S R3W

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): convex Slope (%): 5

Subregion (LRR): C - Mediterranean California Lat: 33.094506 Long: -117.206980 Datum: NAD 1963

Soil Map Unit Name: San Miguel rocky silt loam NWI classification: Not Listed

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (●) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ( )	No (●)	
Hydric Soil Present?	Yes ( )	No (●)	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Wetland Hydrology Present?	Yes ( )	No (●)	

Remarks: Sample point W9-2 was approximately 3 feet higher in elevation than sample point W9-1.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1. *Salvia mellifera*	40	Yes	Not Listed
2. *Artemisia californica*	5	No	Not Listed
3.			
4.			
5.			
Total Cover:	45 %		
Herb Stratum			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	%		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum % % Cover of Biotic Crust %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species		x 2 =	0
FAC species		x 3 =	0
FACU species		x 4 =	0
UPL species	45	x 5 =	225
Column Totals:	45 (A)		225 (B)

Prevalence Index = B/A = 5.00

Hydrophytic Vegetation Indicators:

- (●) Dominance Test is >50%
- (●) Prevalence Index is ≤3.0[1]
- [ ] Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks: The sample area was dominated with upland vegetation therefore the sample area does not collects enough water to maintain hydrophytic vegetation.

SOIL

Sampling Point: W9-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks: Compacted soils/fill was present within the soil sample area therefore could not dig a soil pit. No wetland vegetation or wetland hydrology indicators were observed within the sample area thus the soil was assumed to be non-hydric.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No primary nor secondary wetland hydrology indicators were observed within the sample area.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: SDG&E TL 6975 San Marcos to Escondido | City/County: San Diego County | Sampling Date: 4/24/2017

Applicant/Owner: San Diego Gas and Electric (SDG&E) | State: CA | Sampling Point: W10-1

Investigator(s): L.Cervantes and B.Bowen | Section, Township, Range: S28 T12S R3W

Landform (hillslope, terrace, etc.): Floodplain | Local relief (concave, convex, none): none | Slope (%): 0

Subregion (LRR): C - Mediterranean California | Lat: 33.095078 | Long: -117.202346 | Datum: NAD 1963

Soil Map Unit Name: San Miguel rocky silt loam | NWI classification: Freshwater Forested/Shrub

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (●) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes (●)	No ( )	
Hydric Soil Present?	Yes (●)	No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Wetland Hydrology Present?	Yes (●)	No ( )	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Eucalyptus sp.*	20	Yes	
2.			
3.			
4.			
Total Cover:	20 %		
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:	%		
Herb Stratum			
1. *Eleocharis parishii*	15	Yes	FACW
2. *Juncus mexicanus*	10	Yes	FACW
3. *Ambrosia psilostachya*	5	No	FACU
4.			
5.			
6.			
7.			
8.			
Total Cover:	30 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum ____ % | % Cover of Biotic Crust ____ %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species	25	x 2 =	50
FAC species		x 3 =	0
FACU species	5	x 4 =	20
UPL species		x 5 =	0
Column Totals:	30 (A)		70 (B)

Prevalence Index = B/A = 2.33

Hydrophytic Vegetation Indicators:

- [X] Dominance Test is >50%
- [X] Prevalence Index is ≤3.0[1]
- [ ] Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: The sample area was dominated with FACW vegetation therefore the sample area collects enough water to maintain hydrophytic vegetation.

SOIL

Sampling Point: W10-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	5 YR 4/2	85	5 YR 5/8	15	C	M	Loamy Clay	Soils were wet

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks: Redox concentrations were observed with the soil sample and met the requirements for a depleted matrix.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☒ Sediment Deposits (B2) (**Riverine**)
- ☒ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):
Water Table Present?	Yes ◉	No ○	Depth (inches): 16
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches): 8

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Primary and two secondary wetland hydrology indicators were observed within the sample area. Sample point W10-1 was taken approximately 2 feet from the main channel.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: SDG&E TL 6975 San Marcos to Escondido City/County: San Diego County Sampling Date: 4/24/2017

Applicant/Owner: San Diego Gas and Electric (SDG&E) State: CA Sampling Point: W10-2

Investigator(s): L.Cervantes and B.Bowen Section, Township, Range: S28 T12S R3W

Landform (hillslope, terrace, etc.): Upland-Terrace Local relief (concave, convex, none): none Slope (%): 0

Subregion (LRR): C - Mediterranean California Lat: 33.095133° Long: -117.202375° Datum: NAD 1963

Soil Map Unit Name: San Miguel rocky silt loam NWI classification: Not Listed

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (●) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ( )	No (●)	
Hydric Soil Present?	Yes ( )	No (●)	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Wetland Hydrology Present?	Yes ( )	No (●)	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Sycamore rameoso*	20	Yes	Not Listed
2. *Populus fremontii*	10	Yes	Not Listed
3.			
4.			
Total Cover:	30 %		
Sapling/Shrub Stratum			
1. *malosma laurina*	30		Not Listed
2.			
3.			
4.			
5.			
Total Cover:	30 %		
Herb Stratum			
1. *Bromus sp.*	10	Yes	Not Listed
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	10 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum % % Cover of Biotic Crust %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species		x 2 =	0
FAC species		x 3 =	0
FACU species		x 4 =	0
UPL species	70	x 5 =	350
Column Totals:	70 (A)		350 (B)

Prevalence Index = B/A = 5.00

Hydrophytic Vegetation Indicators:

- (●) Dominance Test is >50%
- (●) Prevalence Index is ≤3.0[1]
- [ ] Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks: The sample area was dominated with upland vegetation therefore the sample area does not collect enough water to maintain hydrophytic vegetation.

SOIL

Sampling Point: W10-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	7.5 YR 4/4	100					Loamy Clay	Compact soils

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks: No hydric soil indicators were observed within the soil sample.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No primary or secondary wetland hydrology indicators were observed within the sample area. Sample point W10-2 was taken approximately 10 feet from the W10-1 and is approximately 4 feet higher in elevation.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: SDG&E TL 6975 San Marcos to Escondido | City/County: San Diego County | Sampling Date: 4/24/2017

Applicant/Owner: San Diego Gas and Electric (SDG&E) | State: CA | Sampling Point: W11-1

Investigator(s): L.Cervantes and B.Bowen | Section, Township, Range: S27 T12S R3W

Landform (hillslope, terrace, etc.): Drainage | Local relief (concave, convex, none): none | Slope (%): 0

Subregion (LRR): C - Mediterranean California | Lat: 33.095159 | Long: -117.179935 | Datum: NAD 1963

Soil Map Unit Name: Huerhuero loam | NWI classification: Not Listed

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (●) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes (●)	No ( )	
Hydric Soil Present?	Yes (●)	No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Wetland Hydrology Present?	Yes (●)	No ( )	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix lasiolepis*	50	Yes	FACW
2.			
3.			
4.			
Total Cover:	50 %		
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:	%		
Herb Stratum			
1. *Typha domingensis*	90	Yes	OBL
2. *Bromus diandrus*	15	No	Not Listed
3. *Bromus madritensis*	10	No	UPL
4.			
5.			
6.			
7.			
8.			
Total Cover:	115 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum ____ % | % Cover of Biotic Crust ____ %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	90	x 1 =	90
FACW species	50	x 2 =	100
FAC species		x 3 =	0
FACU species		x 4 =	0
UPL species	25	x 5 =	125
Column Totals:	165 (A)		315 (B)

Prevalence Index = B/A = 1.91

Hydrophytic Vegetation Indicators:

- [X] Dominance Test is >50%
- [X] Prevalence Index is ≤3.0[1]
- [ ] Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: The sample area was dominated with OBL and FACW vegetation therefore the sample area collects enough water to maintain hydrophytic vegetation.

SOIL

Sampling Point: W11-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks: Surface water was present, thus hydric soil was assumed and no sample pit was dug.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☒ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☒ Drift Deposits (B3) (**Riverine**)
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ◉ No ○ Depth (inches): 4

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Primary and two secondary wetland hydrology indicators were observed within the sample area. A large waterfall that flows from the riser was located within the sample area.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: SDG&E TL 6975 San Marcos to Escondido City/County: San Diego County Sampling Date: 4/24/2017

Applicant/Owner: San Diego Gas and Electric (SDG&E) State: CA Sampling Point: W11-2

Investigator(s): L.Cervantes and B.Bowen Section, Township, Range: S27 T12S R3W

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): convex Slope (%): 20

Subregion (LRR): C - Mediterranean California Lat: 33.095183 Long: -117.179991 Datum: NAD 1963

Soil Map Unit Name: Huerhuero loam NWI classification: Not Listed

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (●) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ( )	No (●)	
Hydric Soil Present?	Yes ( )	No (●)	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Wetland Hydrology Present?	Yes ( )	No (●)	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1. *Salvia mellifera*	30	Yes	Not Listed
2. *Artemisia californica*	15	Yes	Not Listed
3. *Rhus integrifolia*	5	No	Not Listed
4.			
5.			
Total Cover:	50 %		
Herb Stratum			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	%		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum ____ % % Cover of Biotic Crust ____ %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species		x 2 =	0
FAC species		x 3 =	0
FACU species		x 4 =	0
UPL species	50	x 5 =	250
Column Totals:	50 (A)		250 (B)

Prevalence Index = B/A = 5.00

Hydrophytic Vegetation Indicators:

- (●) Dominance Test is >50%
- (●) Prevalence Index is ≤3.0[1]
- [ ] Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks: The sample area was dominated with upland vegetation therefore the sample area does not collect enough water to maintain hydrophytic vegetation.

SOIL

Sampling Point: W11-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks: No soil sample pit was dug due to riprap present in the uplands. No wetland vegetation nor wetland hydrology indicators were observed within the sample area thus the soil was assumed to be non-hydric.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No primary or secondary wetland hydrology indicators were observed within the sample area.

US Army Corps of Engineers

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: SDG&E TL 6975 San Marcos to Escondido | City/County: San Diego County | Sampling Date: 4/24/2017

Applicant/Owner: San Diego Gas and Electric (SDG&E) | State: CA | Sampling Point: W12-1

Investigator(s): L.Cervantes and B.Bowen | Section, Township, Range: S19 T12S R2W

Landform (hillslope, terrace, etc.): channel | Local relief (concave, convex, none): none | Slope (%): 0

Subregion (LRR): C - Mediterranean California | Lat: 33.109699° | Long: -117.122402° | Datum: NAD 1963

Soil Map Unit Name: Fallbrook rocky sandy loam | NWI classification: Riverine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (●) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes (●)	No ( )	
Hydric Soil Present?	Yes (●)	No ( )	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Wetland Hydrology Present?	Yes (●)	No ( )	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix lasiolepis*	5	Yes	FACW
2.			
3.			
4.			
Total Cover:	5 %		
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:	%		
Herb Stratum			
1. *Scirpus californicus*	35	Yes	OBL
2. *Typha domingensis*	25	Yes	OBL
3. *eleocharis parishii*	10	No	FACW
4.			
5.			
6.			
7.			
8.			
Total Cover:	70 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum ____ % | % Cover of Biotic Crust ____ %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	60	x 1 =	60
FACW species	15	x 2 =	30
FAC species		x 3 =	0
FACU species		x 4 =	0
UPL species		x 5 =	0
Column Totals:	75 (A)		90 (B)

Prevalence Index = B/A = 1.20

Hydrophytic Vegetation Indicators:

- [x] Dominance Test is >50%
- [x] Prevalence Index is ≤3.0[1]
- [ ] Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: The sample area was dominated with OBL and FACW vegetation therefore the sample area collects enough water to maintain hydrophytic vegetation.

SOIL

Sampling Point: W12-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	7.5 YR 4/2	65	5YR 5/8	35	C	M	Loamy Clay	Soils were moist

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks: Redox concentrations were present within the soil sample and meet the requirements for a depleted matrix hydric soil indicator.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☒ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Primary and two secondary wetland hydrology indicators were observed within the sample area.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: SDG&E TL 6975 San Marcos to Escondido City/County: San Diego County Sampling Date: 4/24/2017

Applicant/Owner: San Diego Gas and Electric (SDG&E) State: CA Sampling Point: W12-2

Investigator(s): L.Cervantes and B.Bowen Section, Township, Range: S19 T12S R2W

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): convex Slope (%): 20

Subregion (LRR): C - Mediterranean California Lat: 33.109647 Long: -117.122392 Datum: NAD 1963

Soil Map Unit Name: Fallbrook rocky sandy loam NWI classification: Not Listed

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (●) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ( )	No (●)	
Hydric Soil Present?	Yes ( )	No (●)	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Wetland Hydrology Present?	Yes ( )	No (●)	

Remarks: Sample W12-2 upland point was taken about 5 feet away from W12-1 on the hill slope.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1. *Baccharis sarothroides*	10	Yes	FACU
2.			
3.			
4.			
5.			
Total Cover:	10 %		
Herb Stratum			
1. *Bromus madritensis*	35	Yes	UPL
2. *Bromus diandrus*	25	Yes	Not Listed
3. *Erodium cicutarium*	10	No	Not Listed
4.			
5.			
6.			
7.			
8.			
Total Cover:	70 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum ____ % % Cover of Biotic Crust ____ %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species		x 2 =	0
FAC species		x 3 =	0
FACU species	10	x 4 =	40
UPL species	70	x 5 =	350
Column Totals:	80 (A)		390 (B)

Prevalence Index = B/A = 4.88

Hydrophytic Vegetation Indicators:

- (●) Dominance Test is >50%
- (●) Prevalence Index is ≤3.0[1]
- [ ] Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks: The sample area was dominated with upland vegetation therefore the sample area does not collect enough water to maintain hydrophytic vegetation.

SOIL

Sampling Point: W12-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-16	7.5 YR 5/6	100					Loamy Clay	Soils were drier than W12-1

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks: No redox concentrations were present within the soil sample and no hydric soil indicators were observed within the soil sample.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No primary nor secondary wetland hydrology indicators were observed within the sample area. Sample W12-2 was located on a hill slope and was approximately 6 feet higher in elevation than W12-1.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: SDG&E TL 6975 San Marcos to Escondido | City/County: San Diego County | Sampling Date: 4/24/2017

Applicant/Owner: San Diego Gas and Electric (SDG&E) | State: CA | Sampling Point: W13-1

Investigator(s): L.Cervantes and B.Bowen | Section, Township, Range: S20 T12S R2W

Landform (hillslope, terrace, etc.): Basin | Local relief (concave, convex, none): concave | Slope (%): 5

Subregion (LRR): C - Mediterranean California | Lat: 33.114131 | Long: -117.118585 | Datum: NAD 1963

Soil Map Unit Name: Fallbrook sandy loam | NWI classification: Not Listed

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (●) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes (●)	No ( )	
Hydric Soil Present?	Yes ( )	No (●)	**Is the Sampled Area within a Wetland?** Yes (●) No ( )
Wetland Hydrology Present?	Yes (●)	No ( )	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:	%		
Herb Stratum			
1. *Cyperus eragrostis*	20	Yes	FACW
2. *Scirpus californicus*	10	Yes	OBL
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	30 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum ____ % | % Cover of Biotic Crust ____ %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	20	x 2 =	40
FAC species		x 3 =	0
FACU species		x 4 =	0
UPL species		x 5 =	0
Column Totals:	30 (A)		50 (B)

Prevalence Index = B/A = 1.67

Hydrophytic Vegetation Indicators:

- [X] Dominance Test is >50%
- [X] Prevalence Index is ≤3.0[1]
- [ ] Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: The sample area was dominated with OBL and FACW vegetation therefore the sample area collects enough water to maintain hydrophytic vegetation.

SOIL

Sampling Point: W13-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-20	7.5 YR 5/6	100					Sandy	Soils were moist

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks: No hydric soil indicators were observed within the soil sample. Wetland vegetation and one wetland hyrdology indicator were observed within the sample area thus the sample area receives enough water to sustain a wetland habitat.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: One primary wetland hydrology indicators was observed within the sample area. Sample W13-1 was taken within the basin and has a concave shape.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: SDG&E TL 6975 San Marcos to Escondido | City/County: San Diego County | Sampling Date: 4/24/2017

Applicant/Owner: San Diego Gas and Electric (SDG&E) | State: CA | Sampling Point: W13-2

Investigator(s): L.Cervantes and B.Bowen | Section, Township, Range: S20 T12S R2W

Landform (hillslope, terrace, etc.): Hill slope | Local relief (concave, convex, none): convex | Slope (%): 15

Subregion (LRR): C - Mediterranean California | Lat: 33.114067 | Long: -117.118658 | Datum: NAD 1963

Soil Map Unit Name: Fallbrook sandy loam | NWI classification: Not Listed

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) (If no, explain in Remarks.)

Are Vegetation [ ] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (●) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes (●)	No ( )	
Hydric Soil Present?	Yes ( )	No (●)	**Is the Sampled Area within a Wetland?** Yes ( ) No (●)
Wetland Hydrology Present?	Yes ( )	No (●)	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1. *Isocoma menziesii*	5	Yes	FAC
2. *Salix laevigata*	2	Yes	FACW
3.			
4.			
5.			
Total Cover:	7 %		
Herb Stratum			
1. *Erodium cicutarium*	40	Yes	Not Listed
2. *Bromus diandrus*	10	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	50 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum ____ % | % Cover of Biotic Crust ____ %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species	12	x 2 =	24
FAC species	5	x 3 =	15
FACU species		x 4 =	0
UPL species	40	x 5 =	200
Column Totals:	57 (A)		239 (B)

Prevalence Index = B/A = 4.19

Hydrophytic Vegetation Indicators:

- [X] Dominance Test is >50%
- [ ] Prevalence Index is ≤3.0[1]
- [ ] Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes (●) No ( )

Remarks: The sample area was dominated with FACW, FAC and upland vegetation therefore the sample area collects enough water to support hydrophytic vegetation. Herbaceous upland vegetation covers most of the sample area on the hill slope.

SOIL

Sampling Point: W13-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-16	7.5 YR 5/8	100					Sandy	Soils were drier than W13-1

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks: No hydric soil indicators were observed within the soil sample.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No primary nor secondary wetland hydrology indicators was observed within the sample area. Sample W13-2 was taken on the slope of the basin.

Appendix D

Summary Jurisdictional Delineation Table

Table D-1 – Aquatic Features Evaluated within the PSA

Feature ID	Feature Type	Mapsheet Number	Jurisdictional		Jurisdictional Extent (Feet)		Description
			USACE	CDFW	USACE (OHWM)	CDFW (Bank to Bank)	
001a	Ephemeral stream	Sheet 1	Y	Y	1	1	This feature is a concrete-lined channel along the upstream portion and natural along the downstream portion. This feature flows within a maintained grass area of a golf course and supported standing water throughout. The feature starts at a culvert outlet and the downstream portion supports wetlands. Three 36-inch culverts channelize flows under San Pablo Drive. OHWM indicators observed include standing water, water staining, and shelving (within the natural portions).
001b	Concrete V-Ditch (BMP)	Sheet 1	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. This is a non-jurisdictional feature.
002	Perennial stream	Sheet 1	Y	Y	86	90	Feature is San Marcos Creek. This feature contains marsh wetland and riparian habitat that occur outside of the OHWM limits. Flows are channelized through culverts under Discovery Street.
003	Ephemeral stream	Sheet 5	Y	Y	2	2	This feature is a concrete-lined channel that conveys flows from surrounding neighborhood hillsides. Topography of this area and landscape indicates a manipulated natural system; therefore, this feature is potentially jurisdictional.
004a	Intermittent stream	Sheet 10	Y	Y	92	102	This feature is San Marcos Creek and flows from three 36-inch culvert outlets through White Sands Drive into a perennial stream. Riparian vegetation and wetlands are present.
004b	Perennial stream	Sheet 10	Y	Y	27	31	This feature is a continuation of San Marcos Creek and flows from a culvert under White Sands Drive into the main flow feature. Water is present. Wetlands occur within the OHWM limit.

Feature ID	Feature Type	Mapsheet Number	Jurisdictional		Jurisdictional Extent (Feet)		Description
			USACE	CDFW	USACE (OHWM)	CDFW (Bank to Bank)	
004c	Perennial stream	Sheet 10	Y	Y	25	29	This feature is San Marcos Creek that traverses the PSA. Wetlands and riparian vegetation are present.
005	Ephemeral stream	Sheet 5	Y	Y	2	2	This feature is a constructed concrete-lined channel located within an apartment complex. The feature follows natural topography and drainage patterns and flows outside of the PSA through a culvert at Viewpoint Drive. OHWM indicators present include water staining
006	Ephemeral stream	Sheet 4	Y	Y	1	2	This feature is a concrete-lined channel that is channelized by a culvert under an asphalt access road. OHWM indicators present include bed and bank (constructed) and water staining; the feature was determined to be a potential natural feature. This feature is tributary to San Marcos Creek.
007a	Intermittent stream	Sheet 4	Y	Y	6.5	9	This feature is tributary to San Marcos Creek. Multiple widths were averaged (USACE: 5.5feet, 3 feet, and 11 feet; CDFW: 6.5 feet, 6 feet, and 14.5 feet). The downstream portion supports wetlands within the OHWM limits.
007b	Ephemeral stream	Sheet 4	Y	Y	2	4	This feature is an earthen channel that flows into 007a. OHWM indicators present include presence of bed and bank, sediment sorting, and algae crust.
007c	Ephemeral stream	Sheet 4	Y	Y	2	2	This feature is an earthen channel that flows into 007a. OHWM indicators present include presence of bed and bank and sediment sorting.
008	Swale	Sheet 4	N	N	N/a	N/a	This feature is a 3-foot-wide, non-jurisdictional swale that initiates from an outfall structure. No OHWM indicators are present.
009	Concrete V-Ditch (BMP)	Sheet 19	N	N	N/a	N/a	This feature is a concrete-lined v-ditch that was constructed to serve as a roadside BMP. This is a non-jurisdictional feature.

Feature ID	Feature Type	Mapsheet Number	Jurisdictional		Jurisdictional Extent (Feet)		Description
			USACE	CDFW	USACE (OHWM)	CDFW (Bank to Bank)	
010a	Perennial stream	Sheet 4	Y	Y	9	61	This feature is San Marcos Creek. The CDFW width includes the extent of riparian vegetation. Portions of wetland occur within riparian vegetation. The feature flows into a 36-inch culvert that runs under Acacia Drive.
010b	Perennial stream	Sheet 6	Y	Y	18	34	The feature is San Marcos Creek and supports wetland and riparian vegetation.
010c	Perennial stream	Sheet 6	Y	Y	20	30	The feature is San Marcos Creek and consists of all wetland and riparian vegetation.
011	Concrete V-Ditch (BMP)	Sheet 7	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. It was constructed to serve as a roadside BMP. This is a non-jurisdictional feature.
012	Ephemeral stream	Sheet 7	Y	Y	3	12	This feature is an earthen drainage. It flows under an access road through a 24-inch culvert and flows into a 36-inch culvert. OHWM indicators present include presence of bed and bank and sediment sorting.
013	Concrete V-Ditch (BMP)	Sheet 6	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. It was constructed to serve as a roadside BMP. This is a non-jurisdictional feature.
014	Concrete V-Ditch (BMP)	Sheet 8	N	N	N/a	N/a	This feature is a non-jurisdictional constructed v-ditch BMP.
015	Concrete V-Ditch (BMP)	Sheet 8/9	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. The v-ditch is partially filled with dead foliage and sediment. This is a non-jurisdictional feature.
016a	Concrete V-Ditch (BMP)	Sheet 11	N	N	N/a	N/a	This feature is a non-jurisdictional constructed v-ditch BMP.
016b	Ephemeral stream	Sheet 11	Y	Y	1	1	This feature is the earthen portion of a drainage. 016a flows directly into this feature. OHWM indicators present include presence of bed and bank and sediment sorting.

Feature ID	Feature Type	Mapsheet Number	Jurisdictional		Jurisdictional Extent (Feet)		Description
			USACE	CDFW	USACE (OHWM)	CDFW (Bank to Bank)	
017	Concrete V-Ditch (BMP)	Sheet 11	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. The v-ditch is partially filled with dead foliage and sediment. This is a non-jurisdictional feature.
018	Intermittent stream	Sheet 10	Y	Y	28	38	This feature is an earthen drainage that supports wetlands and riparian vegetation. An average width was determined for USACE (29 feet and 27 feet). The culvert outlet associated with this feature contains a large root mat partially clogging the outlet. A vegetated sandbar is present.
019	Concrete V-Ditch (BMP)	Sheet 5	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. This feature was constructed in uplands to serve as a hillside. This is a non-jurisdictional feature.
020	Perennial stream	Sheet 2	Y	Y	12	20	This channel supports wetland and riparian vegetation. Access was restricted; therefore, widths were estimated. Feature is a tributary to San Marcos Creek.
021	Concrete V-Ditch (BMP)	Sheet 2	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. The feature runs along the back side of a softball field. This is a non-jurisdictional feature.
022a	Concrete V-Ditch (BMP)	Sheet 11	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. The feature converts from a BMP to an earthen drainage further downstream. This is a non-jurisdictional feature.
022b	Ephemeral stream	Sheet 11	Y	Y	2	2	This portion of the feature is an earthen drainage. OHWM indicators present include presence of bed and bank and sediment sorting.
023a	Concrete V-Ditch (BMP)	Sheet 11	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. This feature follows the trail and ends at the culvert inlet. This feature was constructed to serve as a roadside BMP. This is a non-jurisdictional feature.
023b	Concrete V-Ditch (BMP)	Sheet 10	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. This feature is a concrete-lined feature that follows the trail and ends at the culvert inlet. This feature was constructed

Feature ID	Feature Type	Mapsheet Number	Jurisdictional		Jurisdictional Extent (Feet)		Description
			USACE	CDFW	USACE (OHWM)	CDFW (Bank to Bank)	
							to serve as a roadside BMP. This is a non-jurisdictional feature.
023c	Concrete V-Ditch (BMP)	Sheet 10	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. This feature is a concrete-lined feature that follows the trail and ends at the culvert inlet. This feature was constructed to serve as a roadside BMP. This is a non-jurisdictional feature.
023d	Concrete V-Ditch (BMP)	Sheet 10	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. This feature is a concrete-lined feature that follows the trail and ends at the culvert inlet. This feature was constructed to serve as a roadside BMP. This is a non-jurisdictional feature.
024a	Concrete V-Ditch (BMP)	Sheet 11	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. It is a part of a complex system established as a hillside BMP. This is a non-jurisdictional feature.
024b	Concrete V-Ditch (BMP)	Sheet 11	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. It is a part of a complex system established as a hillside BMP. This is a non-jurisdictional feature.
025a	Concrete V-Ditch (BMP)	Sheet 11	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. It is a part of a complex system established as a hillside BMP. This is a non-jurisdictional feature.
025b	Concrete V-Ditch (BMP)	Sheet 11	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. It is a part of a complex system established as a hillside BMP. This is a non-jurisdictional feature.
025c	Concrete V-Ditch (BMP)	Sheet 11	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. It is a part of a complex system established as a hillside BMP. This is a non-jurisdictional feature.
025d	Concrete V-Ditch (BMP)	Sheet 11	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. It is a part of a complex system established as a hillside BMP. This is a non-jurisdictional feature.

Feature ID	Feature Type	Mapsheet Number	Jurisdictional		Jurisdictional Extent (Feet)		Description
			USACE	CDFW	USACE (OHWM)	CDFW (Bank to Bank)	
026	Concrete V-Ditch (BMP)	Sheet 12	N	N	N/a	N/a	This feature is a constructed v-ditch BMP and was constructed to serve as a hillside BMP. One feature follows the fence line on the west side of the PSA. This is a non-jurisdictional feature.
027	Concrete V-Ditch (BMP)	Sheet 12	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. This feature was created to serve as a hillside BMP. This is a non-jurisdictional feature.
027a	Concrete V-Ditch (BMP)	Sheet 12	N	N	N/a	N/a	This feature is a constructed v-ditch BMP to serve as a hillside BMP. This is a non-jurisdictional feature.
028	Concrete V-Ditch (BMP)	Sheet 12	N	N	N/a	N/a	This feature is a constructed v-ditch BMP to serve as a hillside BMP. This is a non-jurisdictional feature.
029	Concrete V-Ditch (BMP)	Sheet 12	N	N	N/a	N/a	This feature is a constructed v-ditch BMP and was constructed to serve as a hillside BMP. This is a non-jurisdictional feature.
030	Concrete V-Ditch (BMP)	Sheet 12	N	N	N/a	N/a	This feature is a constructed v-ditch BMP and was constructed to serve as a hillside BMP. This is a non-jurisdictional feature.
031	Concrete V-Ditch (BMP)	Sheet 12	N	N	N/a	N/a	This feature is a constructed v-ditch BMP that runs along the roadside and flows into culvert.
032	Ephemeral stream	Sheet 13	Y	Y	3	3	This feature is a concrete-lined channel with rip-rap banks and flows into a culvert outlet.
033	Concrete V-Ditch (BMP)	Sheet 13	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. This is a non-jurisdictional feature.
034	Concrete V-Ditch (BMP)	Sheet 13	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. This is a non-jurisdictional feature.
035a	Ephemeral stream	Sheet 13	Y	Y	1	2	This feature consists of three concrete-lined channels that flow into a basin that supports riparian vegetation. The feature follows natural drainage patterns and appear to have been natural earthen bottom drainages prior to being converted to concrete. OHWM indicators

Feature ID	Feature Type	Mapsheet Number	Jurisdictional		Jurisdictional Extent (Feet)		Description
			USACE	CDFW	USACE (OHWM)	CDFW (Bank to Bank)	
							observed include water staining. The basin is shown as a streamline.
035b	Ephemeral stream	Sheet 13	Y	Y	3	5	This feature is an earthen drainage that extends to the limit of the PSA. Riparian vegetation is present upstream. OHWM indicators observed: sediment sorting, destruction of vegetation, and presence of bed and bank.
036a	Concrete V-Ditch (BMP)	Sheet 14	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. This feature was constructed to serve as a hillside BMP. This is a non-jurisdictional feature.
036b	Swale	Sheet 14	N	N	N/a	N/a	This feature is a rip-rap swale approximately 3 feet wide. No OHWM indicators observed.
037	Erosional Feature	Sheet 16	N	N	N/a	N/a	This feature is an earthen drainage that occurs on the east side of the road. Sheet flow occurs over the entire width of the road and loses definition downslope.
038	Concrete V-Ditch (BMP)	Sheet 16	N	N	N/a	N/a	This feature is a constructed v-ditch BMP that ends in rip-rap and was created to serve as a hillside BMP. This is a non-jurisdictional feature.
039	Concrete V-Ditch (BMP)	Sheet 16	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. This is a non-jurisdictional feature.
040	Concrete V-Ditch (BMP)	Sheet 17	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. The feature was constructed in uplands to serve as a hillside BMP. This is a non-jurisdictional feature.
041	Swale	Sheet 17	N	N	N/a	N/a	This feature is a swale that is approximately 2 feet wide. No OHWM indicators are present.
042	Ephemeral stream	Sheet 16/17	Y	Y	2	4	This feature is an earthen channel. Leaf litter covers most of the feature. OHWM indicators present include the presence of bed and bank. Riparian vegetation is present in the downstream reach of this feature.

Feature ID	Feature Type	Mapsheet Number	Jurisdictional		Jurisdictional Extent (Feet)		Description
			USACE	CDFW	USACE (OHWM)	CDFW (Bank to Bank)	
043	Concrete V-Ditch (BMP)	Sheet 17	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. The feature was constructed in uplands to serve as a hillside BMP. This is a non-jurisdictional feature.
044	Concrete V-Ditch (BMP)	Sheet 17	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. This is a non-jurisdictional feature.
045	Ephemeral stream	Sheet 17	Y	Y	4	4	This feature is an earthen drainage. Although the drainage begins as an erosional feature within the road, once flows go off the road, OHWM indicators continue throughout the length of the feature and include: sediment sorting, presence of bed and bank, and destruction of terrestrial vegetation.
046	Concrete V-Ditch (BMP)	Sheet 18	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. This is a non-jurisdictional feature.
047	Concrete V-Ditch (BMP)	Sheet 17/ 18	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. This is a non-jurisdictional feature.
048	Erosional Feature	Sheet 18	N	N	N/a	N/a	Drainage pattern is only associated with the road, and does not follow the natural drainage patterns of the slope. Natural drainage pattern would drain north, however this feature drains southwest.
049	Perennial stream	Sheet 18	Y	Y	Polygon	Polygon	This feature is San Marcos Creek. Polygon depicts extent of riparian and wetlands present. Physical features observed include vegetated sand and gravel bar near rock face and an elevated island in the middle of the channel. Least Bell's Vireo were present within creek. OHWM shown as a streamline.
050	Concrete V-Ditch (BMP)	Sheet 18/19	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. This is a non-jurisdictional feature.
051	Ephemeral stream	Sheet 19	Y	Y	1	3	This feature is a concrete-lined channel that converts to an earthen channel at the southern end of the feature. Feature follows natural drainage pattern present prior to construction of the housing development.

Feature ID	Feature Type	Mapsheet Number	Jurisdictional		Jurisdictional Extent (Feet)		Description
			USACE	CDFW	USACE (OHWM)	CDFW (Bank to Bank)	
052	Concrete V-Ditch (BMP)	Sheet 20	N	N	N/a	N/a	This feature is a constructed v-ditch BMP and ends at rip-rap. This feature was constructed in uplands to serve as a hillside BMP. This is a non-jurisdictional feature.
053	Swale	Sheet 20	N	N	N/a	N/a	This feature is a swale: no OHWM or defined bed and bank observed.
054	Concrete V-Ditch (BMP)	Sheet 20/ 21	N	N	N/a	N/a	This feature is a constructed v-ditch BMP that ends at rip-rap. This feature was constructed to serve as a hillside BMP. This is a non-jurisdictional feature.
055	Swale	Sheet 21	N	N	N/a	N/a	This feature is a swale: no OHWM or defined bed and bank observed.
056	Ephemeral stream	Sheet 21	Y	Y	1	2	This feature is an earthen drainage that starts in rip-rap and flows downstream before it dissipates completely. OHWM indicators observed include sediment sorting.
057	Concrete V-Ditch (BMP)	Sheet 21	N	N	N/a	N/a	This feature is a constructed v-ditch BMP that follows the sidewalk (mid-slope). This feature was constructed to serve as a roadside BMP. This is a non-jurisdictional feature.
058	Concrete V-Ditch (BMP)	Sheet 21	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. This is a non-jurisdictional feature.
059	Concrete V-Ditch (BMP)	Sheet 21	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. This is a non-jurisdictional feature.
060	Ephemeral Stream	Sheet 21	Y	Y	3.5	10	This feature flows from a 60-inch culvert that proceeds west narrowing in size (5 feet to 1 foot). Riparian vegetation occurs at the first half of the feature. The ground shows evidence of ponding at the end of the feature. Extended streamline through ponded area.
061	Concrete V-Ditch (BMP)	Sheet 22	N	N	N/a	N/a	This feature is a constructed v-ditch BMP and serves as a roadside BMP. This is a non-jurisdictional feature.
062	Concrete V-Ditch (BMP)	Sheet 22	N	N	N/a	N/a	This feature is a constructed v-ditch BMP and serves as a roadside BMP. This is a non-jurisdictional feature.

Feature ID	Feature Type	Mapsheet Number	Jurisdictional		Jurisdictional Extent (Feet)		Description
			USACE	CDFW	USACE (OHWM)	CDFW (Bank to Bank)	
063	Concrete V-Ditch (BMP)	Sheet 21	N	N	N/a	N/a	This feature is a constructed v-ditch BMP and serves as a roadside BMP. This is a non-jurisdictional feature.
064	Swale	Sheet 25/26	N	N	N/a	N/a	No OHWM indicators were observed. There is a culvert associated with the swale. This is a non-jurisdictional feature.
065	Concrete V-Ditch (BMP)	Sheet 27	N	N	N/a	N/a	This feature is a constructed v-ditch BMP and serves as a roadside BMP. This is a non-jurisdictional feature.
066	Perennial stream	Sheet 24	Y	Y	10	12	This feature is an unnamed perennial stream that supports wetlands and riparian vegetation. Crayfish are present within the stream. OHWM indicators observed: sediment sorting, destruction of vegetation and cut banks, and water staining present on rocks and vegetation. Tributary to Escondido Creek.
067	Ephemeral Stream	Sheet 30	Y	Y	10	16	This feature is a natural drainage. Non-wetland riparian vegetation is present up and downstream of the road crossing.
068	Concrete V-Ditch (BMP)	Sheet 31	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. This is a non-jurisdictional feature.
069	Concrete V-Ditch (BMP)	Sheet 32	N	N	N/a	N/a	This feature is a constructed v-ditch BMP and was constructed to serve as a hillside BMP.
070	Perennial stream	Sheet 32	Y	Y	Polygon	Polygon	This feature is a natural stream with wetlands and riparian vegetation present. The OHWM width of the steam narrows at the south end of the feature.
071	Ephemeral stream	Sheet 35	Y	Y	4	8	This feature is a natural streamline and crossed the road. OHWM indicators observed include sediment sorting. Flows from upstream and side drain.
072	Ephemeral stream	Sheet 35	Y	Y	2	4	This feature flows into culverts and flows into a larger drainage. Leaf litter, vegetation, and trash where found within drainage.
073	Ephemeral stream	Sheet 35/36	Y	Y	1	1	This feature is a sandy braided system that flows over the road.

Feature ID	Feature Type	Mapsheet Number	Jurisdictional		Jurisdictional Extent (Feet)		Description
			USACE	CDFW	USACE (OHWM)	CDFW (Bank to Bank)	
074	Ephemeral stream	Sheet 37	Y	Y	3	3	This feature is earthen up and downstream of road. The portion crossing the road, no culvert is present.
075	Ephemeral stream	Sheet 37	Y	Y	2	2	This feature is earthen and flows beneath the road through a culvert.
076	Ephemeral stream	Sheet 38	Y	Y	2	2	This feature is earthen and flows beneath the road through a culvert.
077	Erosional Feature	Sheet 38	N	N	N/a	N/a	Created from road and flows downslope. This is a non-jurisdictional feature.
078	Ephemeral stream	Sheet 39	Y	Y	2	2	This feature is an earthen drainage that flows through a culvert under the road.
079	Ephemeral stream	Sheet 40	Y	Y	2	2	This feature is an earthen channel that crosses the access road via a culvert.
080	Ephemeral stream	Sheet 40	Y	Y	3	5	This feature is an earthen channel. A culvert is only present downstream of this feature, not a culverted crossing
081	Ephemeral stream	Sheet 41	Y	Y	10	10	This feature is an earthen channel. No culvert is present, feature flows over the access road.
082	Ephemeral stream	Sheet 42	Y	Y	2	5	This feature is an earthen channel that crosses the road through a culvert.
083	Ephemeral stream	Sheet 42	Y	Y	5	5	This feature is an earthen channel. No culverts were present.
084	Ephemeral stream	Sheet 41	Y	Y	4	7	This feature is an earthen channel that flows along the roadside. OHWM indicators present include bed and bank. Flows downhill under vegetation.
085a	Swale	Sheet 43	N	N	N/a	N/a	This feature is a swale that is approximately 10 feet wide and consists of a large grassy area. No OHWM indicators present. This is a non-jurisdictional feature.
085b	Ephemeral stream	Sheet 44	Y	Y	1	3	This feature is an earthen channel which exhibits natural drainage patterns and OHWM indicators like bed and bank.

Feature ID	Feature Type	Mapsheet Number	Jurisdictional		Jurisdictional Extent (Feet)		Description
			USACE	CDFW	USACE (OHWM)	CDFW (Bank to Bank)	
085c	Ephemeral stream	Sheet 44	Y	Y	1	3	This feature is an earthen channel that crosses the access road and exhibits natural drainage patterns and OHWM indicators like bed and bank.
085d	Ephemeral stream	Sheet 44	Y	Y	2	4	This feature is an earthen channel that crosses the access road and exhibits natural drainage patterns and OHWM indicators like bed and bank.
086	Ephemeral stream	Sheet 44	Y	Y	2	3	This feature is an earthen channel that crosses the access road. No culvert present.
087	Erosional feature	Sheet 45	N	N	N/a	N/a	Feature associated with road run-off, feature does not follow natural drainage pattern.
088a	Ephemeral stream	Sheet 45	Y	Y	10	12	This feature is an earthen slightly braided system. OHWM indicators observed: sediment sorting and cut bank.
088b	Ephemeral stream	Sheet 47	Y	Y	10	12	This feature is an earthen slightly braided system. OHWM indicators observed: sediment sorting and cut bank. Feature crosses the access road through a culvert and runs parallel to access road. Riparian vegetation (oak woodland) is present.
089a	Ephemeral stream	Sheet 46	Y	Y	5	6	This feature is an earthen channel. OHWM indicators observed: sediment sorting and cut bank.
089b	Ephemeral stream	Sheet 46	Y	Y	1	1	This feature is an earthen channel. OHWM indicators observed: sediment sorting and cut bank.
089c	Ephemeral stream	Sheet 46	Y	Y	2	3	This feature is an earthen channel. OHWM indicators observed: sediment sorting and cut bank.
089d	Ephemeral stream	Sheet 46	Y	Y	2	3	This feature is an earthen channel. OHWM indicators observed: sediment sorting and cut bank.
090	Ephemeral stream	Sheet 47	Y	Y	11	15	This feature is earthen channel that flows through three 36-inch culverts under Bresa De Loma Road and flows parallel to the access road.

Feature ID	Feature Type	Mapsheet Number	Jurisdictional		Jurisdictional Extent (Feet)		Description
			USACE	CDFW	USACE (OHWM)	CDFW (Bank to Bank)	
091	Ephemeral stream	Sheets 47/ 48	Y	Y	10	12	This feature was also mapped as an NHD streamline. The channel was clogged with sediment. Three 36-inch culverts convey flows under the access road.
092	Ephemeral stream	Sheets 47/ 48	Y	Y	6.5	7	This feature is an earthen channel that outlets from an 18-inch culvert and flows into a main stream. Average width was taken from multiple measurements.
093	Ephemeral stream	Sheet 49	Y	Y	6	8	This feature is a natural stream with an average width of 6 feet from multiple measurements. OHWM indicators observed: sediment sorting, cut bank, and drift and debris. Crosses access road, no culverts present.
094	Ephemeral Stream	Sheet 49/ 50	Y	Y	12	15	This feature is an earthen drainage associated with a NHD stream line. Wetland and riparian vegetation present. Feature crosses an access road, no culvert present.
095	Ephemeral stream	Sheet 35/ 36	Y	Y	6	10	This feature is an earthen drainage. OHWM indicators observed: presence of bed and bank, drift and debris, and sediment sorting.
096	Ephemeral stream	Sheet 36	Y	Y	5	7	This feature is an earthen drainage. OHWM indicators observed include the presence of bed and bank.
097	Ephemeral stream	Sheet 37	Y	Y	5	7	This feature is an earthen drainage that flows through an 18-inch culvert under the road.
098	Ephemeral stream	Sheet 36	Y	Y	3	5	This feature is an earthen drainage. The OHWM and bed and bank was estimated along the road by taking the average up and downstream measurements. Feature flows across the access road, no culvert present.
099	Ephemeral stream	Sheet 36/39	Y	Y	6	12	This feature is an earthen drainage that flows through a 24-inch culvert through the road.
100	Ephemeral stream	Sheet 38	Y	Y	6	10	This feature is an earthen drainage that receives flows from a 36–inch culvert outside of the PSA.

Feature ID	Feature Type	Mapsheet Number	Jurisdictional		Jurisdictional Extent (Feet)		Description
			USACE	CDFW	USACE (OHWM)	CDFW (Bank to Bank)	
101	Ephemeral stream	Sheet 50	Y	Y	1	2	This feature is an earthen feature that flows across the road through a 12-inch culvert.
102	Ephemeral stream	Sheet 51	Y	Y	2	5	This feature is an earthen drainage that is dammed with sand bags and flows over the access road. No culverts present.
103a	Open Water	Sheet 52	Y	Y	Polygon	Polygon	This feature consists of open water and has adjacent riparian vegetation with some wetlands along the road. The access road crosses into the feature.
103b	Perennial stream	Sheet 52	Y	Y	3	22	This is the stream portion of the feature that occurs south of the road. Flows initiate from two separate culvert outlets. Riparian vegetation and wetlands are present. This is an unnamed tributary to Escondido Creek.
104a	Ephemeral stream	Sheet 53	Y	Y	2	5	The portion of the feature is a stream that has been manipulated by the property owner. The flow path has not changed; however, the bank has been constructed.
104b	Perennial stream	Sheet 53	Y	Y	Polygon	Polygon	This portion of the feature is the main detention basin and consists primarily of wetland and riparian vegetation. Water is present within the channel. This feature is an unnamed tributary to Escondido Creek.
105	Concrete V-Ditch (BMP)	Sheet 55	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. This is a non-jurisdictional feature.
106	Concrete V-Ditch (BMP)	Sheet 55	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. This feature was constructed to serve as a hillside BMP. This is a non-jurisdictional feature.
107	Concrete V-Ditch (BMP)	Sheet 55/ 57	N	N	N/a	N/a	This feature is a constructed v-ditch BMP and was constructed to serve as a hillside BMP. This is a non-jurisdictional feature.
108	Concrete V-Ditch (BMP)	Sheet 55	N	N	N/a	N/a	This feature is a constructed v-ditch BMP and was constructed to serve as a hillside BMP. This is a non-jurisdictional feature.

Feature ID	Feature Type	Mapsheet Number	Jurisdictional		Jurisdictional Extent (Feet)		Description
			USACE	CDFW	USACE (OHWM)	CDFW (Bank to Bank)	
109	Concrete V-Ditch (BMP)	Sheet 57	N	N	N/a	N/a	This feature is a constructed v-ditch BMP and was constructed to serve as a hillside BMP. This is a non-jurisdictional feature.
110	Concrete V-Ditch (BMP)	Sheet 57	N	N	N/a	N/a	This feature is a constructed v-ditch BMP and was constructed to serve as a hillside BMP. This is a non-jurisdictional feature.
111	Ephemeral stream	Sheet 57	Y	Y	2	4	Upstream portion is a concrete-lined channel, it then flows into a basin with wetland and riparian vegetation. The downstream portion serves as a backflow channel and is a natural bottom.
112	Concrete V-Ditch (BMP)	Sheet 58	N	N	N/a	N/a	This feature is a constructed v-ditch BMP and was constructed to serve as a hillside BMP. This is a non-jurisdictional feature.
113	Concrete V-Ditch (BMP)	Sheet 58	N	N	N/a	N/a	This feature is a constructed v-ditch BMP. This is a non-jurisdictional feature.
114a	Concrete V-Ditch (BMP)	Sheet 58/ 59/ 60	N	N	N/a	N/a	This feature is a constructed v-ditch BMP and was constructed to serve as a hillside BMP. This is a non-jurisdictional feature.
114b	Concrete V-Ditch (BMP)	Sheet 59	N	N	N/a	N/a	This feature is a constructed v-ditch BMP and was constructed to serve as a hillside BMP. This is a non-jurisdictional feature.
115	Concrete V-Ditch (BMP)	Sheet 59	N	N	N/a	N/a	This feature is a constructed v-ditch BMP and was constructed to serve as a hillside BMP. This is a non-jurisdictional feature.
116	Concrete V-Ditch (BMP)	Sheet 60	N	N	N/a	N/a	This feature is a constructed v-ditch BMP and was constructed to serve as a hillside BMP. This is a non-jurisdictional feature.
117	Ephemeral stream	Sheet 60	Y	Y	1	3	This feature is a concrete-lined channel. OHWM indicators observed include water staining.

Feature ID	Feature Type	Mapsheet Number	Jurisdictional		Jurisdictional Extent (Feet)		Description
			USACE	CDFW	USACE (OHWM)	CDFW (Bank to Bank)	
118	Concrete V-Ditch (BMP)	Sheet 60/ 61	N	N	N/a	N/a	This feature is a constructed v-ditch BMP and was constructed to serve as a hillside BMP. This is a non-jurisdictional feature.
119	Concrete V-Ditch (BMP)	Sheet 60/ 61	N	N	N/a	N/a	This feature is a constructed v-ditch BMP and was constructed to serve as a hillside BMP. This is a non-jurisdictional feature.
120	Concrete V-Ditch (BMP)	Sheet 60	N	N	N/a	N/a	This feature is a constructed v-ditch BMP and was constructed to serve as a hillside BMP. This is a non-jurisdictional feature.
121	Erosional Feature	Sheet 41	N	N	N/a	N/a	This feature is erosional. Some discontinuous OHWM indicators observed.
122	Wetland	Sheet 68/69	Y	Y	Polygon	Polygon	This feature is outside of the proposed staging yard boundary, and access for jurisdictional measurements was not possible during the time of survey. The feature supports a well-established wetland/riparian area with adult willow and sycamore trees. The stream is an intermittent tributary to San Vicente Creek.
123	Wetland	Sheet 9	Y	Y	Polygon	Polygon	This feature is a stormwater detention basin within the proposed Lionshead Ave #5 staging yard. The basin supports wetland vegetation and hydrology.
124	Wetland	Sheet 71	Y	Y	Polygon	Polygon	This feature is a stormwater detention basin within the proposed Carlsbad Bus Park Staging yard. The basin supports wetland vegetation and hydrology.
125	Swale	Sheet 71	N	N	N/a	N/a	Vegetated swale constructed to convey flow to a detention basin.
126	Wetland	Sheet 71	Y	Y	Polygon	Polygon	This feature is a stormwater detention basin within the proposed Eagle Drive #2 staging yard. The basin supports wetland vegetation and hydrology.
127	Wetland	Sheet 55	Y	Y	Polygon	Polygon	This feature is a stormwater detention basin located south of the proposed South Andreasen staging yard, east of Citracado Parkway.

Feature ID	Feature Type	Mapsheet Number	Jurisdictional		Jurisdictional Extent (Feet)		Description
			USACE	CDFW	USACE (OHWM)	CDFW (Bank to Bank)	
128	Wetland	Sheet 53	Y	Y	Polygon	Polygon	This feature is a stormwater detention basin located in the southwest corner of the proposed South Andreasen staging yard, west of Citracado Parkway.

Appendix E
Summary Constraints Table

Table E-1 – Construction Constraint Table

Constraint	Distance from Feature (Feet)[2]	Feature ID	Mapsheet Number	Construction Status	Project Constraints
Location 7	5	002	Sheet 1	N/A	Work would include the replacement of a pier foundation. The work area is adjacent to Feature 002 (San Marcos Creek). **The work area has been revised to avoid the mapped extent of Feature 002.** Work area limits will need to be flagged to ensure that the work area avoids Feature 002.
Crosses Access Road	0	045	Sheet 17	Red	Access road crossing. No grading or road improvements allowed within this area without permits.
Location 35	1	10b	Sheet 6	N/A	The impact footprint occurs near the top of bank of Feature 10b. **The work area has been revised to avoid Feature 10b.** Work will be limited to the east side of the pole. Slopes are very steep adjacent to aquatic feature, discharge of materials should be avoided.
Crosses Access Road	0	049	Sheet 18	Red	Access road crossing. No grading or road improvements allowed within this area without permits.
Crosses Access Road	0	051	Sheet 19	Red	Access road crossing. No grading or road improvements allowed within this area without permits.
Location 72 work area	5	056	Sheet 21	N/A	Work would consists of overhead work to the existing pole. Work area limits will need to be flagged to ensure that the work area avoids Feature 056.
Work area between Location 70 and 71	1	060	Sheet 21	N/A	Work area occurs adjacent to Feature 060. The **work area has been revised to avoid impacts to feature.** Work area will be confined to the existing road.
Crosses Access Road	0	066	Sheet 24	Red	Access road crossing. No grading or road improvements allowed within this area without permits.
Crosses Access Road	0	067	Sheet 30	Red	Access road crossing. No grading or road improvements allowed within this area without permits.
Crosses Access Road	0	073	Sheet 35/ 36	Red	Access road crossing. No grading or road improvements allowed within this area without permits.

Constraint	Distance from Feature (Feet)[2]	Feature ID	Mapsheet Number	Construction Status	Project Constraints
Crosses Access Road	0	074	Sheet 37	Red	Access road crossing. No grading or road improvements allowed within this area without permits.
Crosses Access Road	0	080	Sheet 40	Red	Access road crossing. No grading or road improvements allowed within this area without permits.
Crosses Access Road	0	081	Sheet 41	Red	Access road crossing. No grading or road improvements allowed within this area without permits.
Crosses Access Road	0	083	Sheet 42	Red	Access road crossing. No grading or road improvements allowed within this area without permits.
Crosses Access Road	0	085b	Sheet 44	Red	Feature starts near the edge of the existing access road. No grading or road improvements allowed within this area without permits.
Crosses Access Road	0	085c	Sheet 44	Red	Access road crossing. No grading or road improvements allowed within this area without permits.
Crosses Access Road	0	085d	Sheet 44	Red	Access road crossing. No grading or road improvements allowed within this area without permits.
Crosses Access Road	0	086	Sheet 44	Red	Access road crossing within road. No grading or road improvements allowed within this area without permits.
Crosses Access Road	0	088b	Sheet 47	Red	Access road crossing within road. No grading or road improvements allowed within this area without permits.
Location 97 work area	5	089b	Sheet 46	Red	Feature within five feet of temporary impact area and adjacent to access road. Work area limits should be flagged to avoid impacts to this feature. No grading or road improvements allowed within this area without permits.
Crosses Access Road	0	091	Sheet 48	Red	Access road crossing within road. No grading or road improvements allowed within this area without permits.
Crosses Access Road	0	092	Sheet 48	Red	Access road crossing within road. No grading or road improvements allowed within this area without permits.
Location 99 work area	3	092	Sheet 48	N/A	Feature within three feet of temporary impact area. Work area limits should be flagged to ensure all work occurs within the access road limits and avoids impacts to this feature.

Constraint	Distance from Feature (Feet)[2]	Feature ID	Mapsheet Number	Construction Status	Project Constraints
Crosses Access Road	0	093	Sheet 49	Red	Access road crossing within road. No grading or road improvements allowed within this area without permits.
Crosses Access Road	0	098	Sheet 36	Red	Access road crossing within road. No grading or road improvements allowed within this area without permits.
Crosses Access Road	0	102	Sheet 51	Red	Access road crossing within road. No grading or road improvements allowed within this area without permits.
Crosses Access Road	0	111	Sheet 57	Red	Access road crossing within road. No grading or road improvements allowed within this area without permits.
Crosses Access Road	0	117a	Sheet 60	Red	Access road crossing within road. No grading or road improvements allowed within this area without permits.
Aquatic Resource within Staging Yard	5	122	Sheet 68	N/A	Feature 122 runs parallel to the staging yard footprint. Work area limits should be flagged to ensure all work occurs within the access road limits and avoids impacts to this feature.
Aquatic Resource within Staging Yard	1	123	Sheet 9	N/A	**The staging yard footprint has been revised to avoid this feature.** Staging yard limits will need to be flagged to ensure that the work area avoids Feature 123.
Aquatic Resource within Staging Yard	1	124	Sheet 71	N/A	**The staging yard footprint has been revised to avoid this feature.** Staging yard limits will need to be flagged to ensure that the work area avoids Feature 124.
Aquatic Resource within Staging Yard	1	126	Sheet 71	N/A	**The staging yard footprint has been revised to avoid this feature.** Staging yard limits will need to be flagged to ensure that the work area avoids Feature 126.
Aquatic Resource within Staging Yard	1	128	Sheet 53	N/A	**The staging yard footprint has been revised to avoid this feature.** Staging yard limits will need to be flagged to ensure that the work area avoids Feature 128.

Construction Status:
N/A = Feature that falls within the 300-foot survey corridor.
Red = Jurisdictional features and can neither be graded nor filled. Within the jurisdictional limits of these features the elevation of the streambed cannot change and the natural flow and patterns (hydrodynamics) of surface water cannot be impounded upstream of the water crossing. A culvert or other human-made structure to convey surface flows across the access road cannot be placed in the stream without authorization from the USACE, RWQCB, and CDFW.

Appendix D

Special-Status Plant and Wildlife Species Known or with Potential to Occur in the Survey Area

Species Name	Covered under the NCCP (Yes/No)	Listing Status[1]	Habitat Requirements	Potential to Occur
San Diego thorn-mint (*Acanthomintha ilicifolia*)	Yes	FT, SE, 1B.1	Annual herb. Prefers friable or broken clay soils in grassy openings in chaparral and coastal sage scrub, valley and foothill grassland, and vernal pools; 33–3,150 feet (ft). Blooming period: April–June	Suitable friable clay soils are very limited within the survey area. If present on- site this species would have been observed. **Low potential**.
California adolphia (*Adolphia californica*)	No	2B.1	Deciduous shrub. Clay soils in chaparral, coastal scrub, and valley and foothill grassland; 147–2,428 ft. Blooming period: December–May	Approximately 87 individuals were detected in the northwestern portion of the survey area. **Present.**
Del Mar manzanita (*Arctostaphylos glandulosa* ssp. *crassifolia*)	Yes	FE, 1B.1	Evergreen shrub. Maritime chaparral with sandy soils; 0–1,197 ft. Blooming period: December–June	Suitable soils for this species are not present within the survey area. This large shrub would have been visible during rare plant surveys if it were present. **Not expected**.
Rainbow manzanita (*Arctostaphylos rainbowensis*)	No	1B.1	Evergreen shrub. Chaparral; 672-2198 ft. Blooming period: December - March	Outside of the known range of this spatially restricted species. This large shrub would have been visible during rare plant surveys if it were present. **Not expected**.
San Diego sagewort (*Artemisia palmeri*)	No	4.2	Deciduous shrub. Sandy soils in mesic areas in chaparral, coastal scrub, riparian forest, riparian scrub, riparian woodland; 49–3,002 ft. Blooming period: February–September	Approximately 65 individuals were detected in the eastern portion of the survey area. **Present.**
South coast saltscale (*Atriplex pacifica*)	No	1B.2	Annual herb. Coastal bluff scrub, coastal dunes, coastal scrub, playas; 0-459 ft. Blooming period: March - October	Know from salt marshes which are within 5 miles of the PSA, but no appropriate habitat is present within the PSA. **Not Expected**
Encinitas baccharis (*Baccharis vanessae*)	Yes	FT, SE, 1B.1	Deciduous shrub. Sandstone in maritime chaparral and cismontane woodland; 196-2362 ft. Blooming period: August - November	Perennial subshrub which would have been detected during rare plant surveys if it were present. **Low potential**.
San Diego sunflower (*Bahiopsis* [=*Vigueria*] *laciniata*)	No	4.2	Perennial shrub. Coastal sage scrub and chaparral; 295–2,460 ft. Blooming period: February–August.	One individual detected in northwestern portion of PSA. **Present.**

Species Name	Covered under the NCCP (Yes/No)	Listing Status[1]	Habitat Requirements	Potential to Occur
San Diego goldenstar (*Bloomeria clevelandii*)	No	1B.1	Perennial bulbiferous herb. Clay soils in chaparral, coastal sage scrub, valley grasslands, particularly near mima mound topography or the vicinity of vernal pools; 164–1,526 ft. Blooming period: April–May	Suitable habitat for this species occurs within the survey area. If present on- site this species would have been observed **Low potential.**
Thread-leaved brodiaea (*Brodiaea filifolia*)	Yes	FT, SE, 1B.1	Perennial bulbiferous herb. Often found in clay soils in openings in chaparral, cismontane woodland, coastal scrub, playas, valley and foothill grassland, and vernal pools; 82–3,673 ft. Blooming period: March–June	Suitable habitat for this species occurs within the survey area. Surveys were conducted during an appropriate time of year to observe the species, and the species was not observed during surveys. However, all corms do not flower every year therefore there is a moderate potential for the species to occur. **Moderate potential**.
Orcutt's brodiaea (*Brodiaea orcuttii*)	Yes	1B.1	Bulbiferous herb. Found on mesic, clay, sometimes serpentinite soils in closed-cone coniferous forest, chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, and vernal pools; 98–5,550 ft. Blooming period: May–July	Approximately 147 individuals were observed within the southwestern portion of the survey area. **Present**.
Wart-stemmed ceanothus (*Ceanothus verrucosus*)	Yes	2B.2	Evergreen shrub. Chaparral; 3–1,240 ft. Blooming period: December–May	This species is found in extensive stands throughout the western half of the survey area**.** **Present**.
Southern tarplant (*Centromadia parryi* ssp. *australis*)	No	1B.1	Annual herb. Found within the margin of marshes and swamps, vernally mesic soils in valley and foothill grassland, and vernal pools, often in disturbed sites near the coast at marsh edges; also in alkaline soils sometimes with saltgrass. Sometimes on vernal pool margins; 0–1,570 ft. Blooming period: May–November	Suitable alkaline and vernal pool habitat does not occur within the survey area. If present on site, this species would have been observed. **Not expected.**

Species Name	Covered under the NCCP (Yes/No)	Listing Status[1]	Habitat Requirements	Potential to Occur
Orcutt's spineflower (*Chorizanthe orcuttiana*)	Yes	FE, SE 1B.1	Annual herb. Sandy openings in closed-cone coniferous forest, maritime chaparral, and coastal scrub; 9-410 ft. Blooming period: March - May	Primarily a coastal species. No current or historical records from inland areas such as the PSA occurs in. **Low Potential**
Summer holly (*Comarostaphylis diversifolia* ssp. *diversifolia*)	No	1B.2	Evergreen shrub. Chaparral and cismontane woodland; 98–2,590 ft. Blooming period: April–June	Approximately 57 individuals were observed in the western portion of the survey area. **Present.**
Del Mar sand aster (*Corethrogyne filaginifolia* var. *linifolia*)	Yes	1B.1	Perennial herb. Sandy soils in coastal bluff scrub, coastal scrub, and openings in maritime chaparral; 49-492 ft. Blooming period: May-September	Primarily a coastal species (w/in one mile of shore). No current or historical records from inland areas such as the PSA occurs in. **Low Potential**
Western dichondra (*Dichondra occidentalis*)	No	4.2	Perennial rhizomatous herb. Chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland; 164–1,640 ft. Blooming period: January–July	Approximately 200 individuals were detected within the western portion of the survey area. **Present.**
Blochman's dudleya (*Dudleya blochmaniae ssp. Blochmaniae)*	Yes	1B.1	Perennial herb. Rocky, often clay or serpentine soils in coastal bluff scrub, chaparral, coastal scrub, and valley and foothill grassland; 16-1476 ft. Blooming period: April - June	Primarily a coastal species, localized in the Camp Pendleton area. No current or historical records from inland areas such as the PSA occurs in. **Low Potential**
Variegated dudleya (*Dudleya variegata*)	Yes	1B.2	Perennial herb. Clay soils in chaparral, cismontane woodland, coastal scrub, valley and foothill grassland, and vernal pools; 9-1903 ft. Blooming period: April - June	Marginally suitable habitat present within the PSA. Rare plant surveys were done at an appropriate time of year to detect the blooms of this species. Not observed during rare plant surveys. **Low Potential**
Sticky Dudleya (*Dudleya viscida*)	Yes	1B.2	Perennial herb. Rocky soils in coastal bluff scrub, chaparral, cismontane woodland, and coastal scrub; 32-1804 ft. Blooming period: May - June	Primarily a coastal bluff species, localized in the Camp Pendleton area. No current or historical records from inland areas such as the PSA occurs in. **Low Potential**

Species Name	Covered under the NCCP (Yes/No)	Listing Status[1]	Habitat Requirements	Potential to Occur
San Diego button-celery (*Eryngium aristulatum* var. *parishii*)	Yes	FE, SE 1B.1	Annual/perennial herb. Mesic soils in coastal scrub, valley and foothill grassland, and vernal pools; 65–2,034 ft. Blooming period: April–June	Appropriate vernal pool habitat does not occur within the survey area. **Not expected**
San Diego gumplant (*Grindelia hallii*)	No	1B.2	Perennial herb. Meadows, chaparral, lower montane coniferous forest, and valley and foothill grassland; 606–5,723 ft. Blooming period: May–October	A montane species. Almost all most verified occurrences of this species are from Julian, Cuyamaca, and Laguna Mountain areas. Not observed during rare plant surveys. **Not expected.**
Palmer's grapplinghook (*Harpagonella palmeri*)	Yes	4.2	Annual herb. Clay soils in chaparral, grasslands, coastal sage scrub; 65–3,132 ft. Blooming period: March–May	Approximately 300 individuals were detected in the northwestern portion of the survey area. **Present**.
Ramona horkelia (*Horkelia truncata*)	No	1B.3	Perennial herb. Clay and gabbroic soils in chaparral and cismontane woodland; 1,312–4,265 ft. Blooming period: May–June	Suitable gabbroic/granitic soils are limited within the survey area. Not observed during rare plant surveys. **Low Potential**.
Decumbent goldenbush (*Isocoma menziesii* var. *decumbens*)	No	1B.2	Perennial shrub. Chaparral and in sandy coastal scrub, often in sandy disturbed areas; 33–443 ft. Blooming period: April–November	Suitable sandy soils do not occur within the survey area. If present on site, this species would have been observed. **Not expected**.
San Diego marsh-elder (*Iva hayesiana*)	No	2B.2	Perennial herb. Marshes and swamps, wetland areas, and playas; 32–1,640 ft. Blooming period: April–October	Several individuals were detected in a riparian area in the western portion of the survey area. **Present**.
Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*)	No	1B.1	Annual herb. Coastal salt marsh, coastal salt swamps, playas, vernal pools; 3-4001 ft. Blooming period: February - June	No suitable habitat present within the PSA. **Not expected.**
Sea dahlia (*Leptosyne maritima*)	No	2B.2	Perennial herb. Coastal bluff scrub and coastal scrub; 16–492 ft. Blooming period: March–May	Suitable coastal bluff habitat does not occur within the survey area. Not observed during rare plant surveys. . **Not expected.**
Small-flowered microseris (*Microseris douglasii* ssp. *platycarpha*)	No	4.2	Annual herb. Clay soils in cismontane woodland, coastal scrub, valley and foothill grassland, and vernal pools; 49–3,510 ft. Blooming period: March–May	Approximately 15 individuals were detected in the western portion of the survey area. **Present.**

Species Name	Covered under the NCCP (Yes/No)	Listing Status[1]	Habitat Requirements	Potential to Occur
Felt-leaved monardella (*Monardella hypoleuca* ssp. *lanata*)	Yes	1B.2	Rhizomatous herb. Chaparral and cismontane woodland; 984–5,040 ft. Blooming Period: June–August	Suitable sandy soils do not occur within the survey area. If present on site this species would have been observed. **Not expected.**
Spreading navarretia (*Navarretia fossalis*)	Yes	FT, 1B.1	Annual herb. Chenopod scrub, assorted freshwater marshes and swamps, playas, and vernal pools; 98–2,149 ft. Blooming period: April–June	Appropriate vernal pool habitat does not occur within the survey area. **Not Expected.**
Golden-rayed pentachaeta (*Pentachaeta aurea* ssp. *aurea*)	No	4.2	Annual herb. Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland, and valley and foothill grassland; 262–6,068 ft. Blooming period: March–July.	Approximately 271 individuals were detected within the western portion of the survey area. **Present.**
Nuttall's scrub oak (*Quercus dumosa*)	No	1B.1	Perennial evergreen shrub. Sandy or clay loam in closed-cone coniferous forest, chaparral, and coastal scrub; 49–1,312 ft. Blooming period: February–August	Several large stands of this species were detected within the western portion of the survey area. **Present.**
Ashy spike-moss (*Selaginella cinerascens*)	No	4.1	Perennial rhizomatous herb. Chaparral and coastal sage scrub; 65–2,100 ft.	This species is found in several small patches on exposed rock outcrops and open soils in the western portion of the survey area. **Present.**
Estuary seablite (*Suaeda esteroa*)	No	1B.2	Perennial herb. Coastal salt marshes and swamps; 0-16 ft. Blooming period: May - January	Know from salt marshes which are within 5 miles of the PSA, but no appropriate habitat is present within the PSA. **Not Expected**
Invertebrates				
San Diego fairy shrimp (*Branchinecta sandiegoensis*)	Yes	FE	Vernal pools. All known localities are below 2,300 ft and are within 40 miles of the Pacific Ocean.	No suitable road rut or vernal pool habitat present in the PSA. **Not Expected**
Amphibians				
Western spadefoot (*Spea* (=*Scaphiopus) hammondii*)	Yes	SSC	Temporary pools with water temperatures between 9 degrees Celsius (°C) and <30°C that last at least 3 weeks within areas of open vegetation.	Habitat requirements necessary for this species are limited within the PSA. **Low Potential**

Species Name	Covered under the NCCP (Yes/No)	Listing Status[1]	Habitat Requirements	Potential to Occur
Arroyo toad (*Anaxyrus californicus*)	Yes	FE SSC	Arroyo toad is known to inhabit washes, arroyos, sandy riverbanks, riparian areas with willows, sycamores, oaks, and/or cottonwoods. This species has extremely specialized habitat needs, including exposed sandy streamsides with stable terraces for burrowing with scattered vegetation for shelter. For breeding, areas of quiet water or pools free of predatory fishes with sandy or gravel bottoms without silt are required, between 0 and 3,000 ft in elevation. In addition, during the non-breeding season, this species may disperse up to 6,560 ft from breeding areas and may use various upland habitats, including grasslands.	Habitat requirements necessary for this species are absent from the PSA. **Not Expected**
Reptiles				
California glossy snake (*Arizona elegans occidentalis*)	No	SSC	Sandy habitat in grasslands, coastal sage scrub and chaparral	Historical records from 1946 from within 5 miles of the site. No modern records. The PSA generally does not support the sandy habitat preferred by this species. **Low Potential**
Coastal whiptail (*Aspidoscelis tigris stehnegeri*)	No	SSC	Inhabits coastal sage scrub, chaparral, riparian, oak woodlands, and rocky areas. Occurs in habitats with gravel or sandy soils, often associated with washes.	The PSA contains habitat suitable to support this species. Also, the CNDDB lists two occurrences within 1 mile of the PSA. **High Potential**
Coast horned lizard (*Phrynosoma blainvillii*)	Yes	SSC	Grasslands, brushlands, woodlands, and open coniferous forest with sandy or loose soil; requires abundant ant colonies for foraging.	The PSA contains habitat suitable to support this species. The CNDDB lists four occurrences within 1 mile of the PSA. **High Potential**
Coronado skink (*Plestiodon skiltonianus interparietalis*)	Yes	WL	Forest, open woodland and grassy areas. Usually found under leaf litter, logs or rocks.	The PSA contains habitat suitable to support this species. CNDDB records within 5-miles of the PSA. **High Potential**

Species Name	Covered under the NCCP (Yes/No)	Listing Status[1]	Habitat Requirements	Potential to Occur
Coast patched-nosed snake (*Salvadora hexalepis virgultea*)	Yes	SSC	Inhabits semi-arid brushy areas and chaparral in canyons, rocky hillsides, and plains.	The PSA contains habitat suitable to support this species. Also, the CNDDB lists one occurrence within 1 mile of the PSA. **High Potential**
Orange-throated whiptail (*Aspidoscelis hyperythra*)	Yes	WL	Orange-throated whiptail occurs in semi-arid, brushy areas typically with loose soil and rocks, including washes, streamsides, rocky hillsides, coastal sage scrub, and chaparral. This species can also occur in weedy, disturbed areas adjacent to these habitats.	The PSA contains habitat suitable to support this species. Also, the CNDDB lists two occurrences within 1 mile of the PSA. **High Potential**
Southwestern pond turtle (*Emys marmorata*)	Yes	SSC	Requires slack- or slow-water aquatic habitat as well as aerial and aquatic basking sites. Also requires an upland oviposition site on an unshaded slope with clay soils, in the vicinity of the aquatic site.	Habitat requirements necessary for this species are absent from the PSA. **Not Expected**
Two-striped garter snake (*Thamnophis hammondii*)	Yes	SSC	Inhabits perennial and intermittent streams with rocky beds and bordered by willow thickets or other dense vegetation.	While this species has been recorded within 1 mile of the PSA (CNDDB), the PSA contains limited habitat suitable to support this species. **Moderate Potential**
Birds				
Belding savanna sparrow (*Passerculus sandwichensis beldingi*)	Yes	CE	Nests exclusively in coastal salt marsh dominated by pickleweed.	Know from salt marshes which are within 5 miles of the PSA, but no appropriate marsh habitat is present within the PSA. **Not Expected**
Bells sage sparrow (*Artemisiospiza belli belli*)	No	WL	Open chaparral and sage scrubs.	Widespread but uncommon species. Appropriate habitat present in the PSA, but not observed during focused avian surveys in 2016. **Moderate Potential**

Species Name	Covered under the NCCP (Yes/No)	Listing Status[1]	Habitat Requirements	Potential to Occur
Burrowing owl (*Athene cunicularia*)	Yes	SSC	Prairies, grasslands, lowland scrub, agricultural lands, coastal dunes, desert floors, and some artificial, open areas. They require large open expanses of sparsely vegetated areas on gently rolling or level terrain with an abundance of active small mammal burrows. They use rodent or other burrows for roosting and nesting cover and also known to use pipes, culverts, and nest boxes where burrows are scarce.	No contemporary nesting locations known from anywhere in the vicinity of the PSA. Limited suitable habitat. Not observed during any survey of the PSA **Not Expected**
California horned lark (*Eremophila alpestris actia*)	No	WL	Grasslands, recently disturbed habitat where seeds and insects are easy to find.	Appropriate habitat present in the PSA, but not observed during focused avian surveys in 2016. **Moderate Potential**
Coastal California gnatcatcher (*Polioptila californica californica*)	Yes	FT SSC	Prefer open scrubby habitats such as coastal sage scrub and some forms of chaparral.	Species was detected during the 2016 focused surveys. **Present**
Cooper's hawk (*Accipiter cooperii*)	Yes	WL	Oak groves and mature stands of riparian woodland. This species has adapted well to development and is abundant in urban canyons with eucalyptus trees.	Species was detected incidentally during site visits. **Present**
Least Bell's vireo (*Vireo bellii pusillus*)	Yes	FE CE	Riparian thickets either near water or in dry portions of river bottoms; nests along margins of bushes and forages low to the ground; may also be found using mesquite and arrow weed in desert canyons.	Species was detected during the 2016 focused surveys. **Present**
Light-footed Ridgway's Rail (*Rallus obsoletus levipes*)	Yes	FE CE CFP	Salt marsh dominated by *Spartina* is the primary breeding habitat. Will occasionally nest in brackish or freshwater marsh near the coast.	Know from salt marshes which are within 5 miles of the PSA, but no appropriate marsh habitat is present within the PSA. **Not Expected**

Species Name	Covered under the NCCP (Yes/No)	Listing Status[1]	Habitat Requirements	Potential to Occur
San Diego cactus wren (*Campylorhynchus brunneicapillus sandiegensis*)	Yes	SSC	Resident in coastal sage scrub with extensive or large cactus. Normally nests in large cactus thickets, with nests over 3 ft aboveground.	Not detected during focused California gnatcatcher surveys in coastal sage scrub. Limited potential habitat present. **Low Potential**
Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)	Yes	WL	Fairly common, widespread, and generally fairly conspicuous resident of rocky grassland and patchy shrub habitats, often including areas with disturbance from fire, trash, soil compaction and non-native vegetation.	Species was detected during the 2016 focused surveys. **Present**
Southwestern willow flycatcher *Empidonax trallii extimus)*	Yes	FE CE	Will forage over a variety of habitats; however, species does not breed in California.	Potentially suitable nesting and foraging habitat for this species is located within the PSA and was surveyed in 2016. Species was not detected during 2016 focused USFWS-protocol surveys. **Low Potential**
Tricolored blackbird (*Agelaius tricolor*)	No	CC	Breeds primarily in freshwater marshes with tall emergent vegetation; also stinging nettle and upland habitats such as thickets of Himalayan blackberry. Forages in rangelands, shrublands and agricultural fields.	Suitable acreage of breeding and foraging is not present within the PSA. **Low Potential**
Western snowy plover (*Charadrius alexandrinus nivosus*)	Yes	FT SSC	Sandy beaches, lagoon margins, tidal mud flats. Migrant and winter resident. Migratory breeder in San Diego County; uses beaches, dunes and salt flats for nesting.	Know to nest on salt flats and sandy beaches within 5 miles of the PSA, but no appropriate nesting habitat is present within the PSA. **Not Expected**
White-tailed Kite *(Elanus leucurus*)	No	CFP	Nests in trees or large shrubs. Forages in grasslands and coastal sage scrub	Shrubs in chaparral provide suitable nesting habitat for this species. Kite is known from the region. Not observed during focused avian surveys of the PSA. **Moderate Potential**.

Species Name	Covered under the NCCP (Yes/No)	Listing Status[1]	Habitat Requirements	Potential to Occur
Yellow-billed cuckoo (*Coccyzus americanus*)	No.	FT CE	This species is restricted to cottonwood-dominated woodlands and forests along rivers. Nests in large trees, often cottonwoods.	Extremely rare in San Diego County. Not documented in PSA. **Not Expected**
Yellow-breasted Chat (*Icteria virens*)	No	SSC	Associated with mature riparian woodland. Common summer resident in appropriate habitat throughout San Diego County.	Species was not detected during 2016 focused riparian bird surveys; however, nesting and foraging habitat suitable to support this species is located within the PSA. **Moderate Potential**
Yellow warbler (*Setophaga petechia*)	No	SSC	Associated with mature riparian woodland. Common summer resident in appropriate habitat throughout San Diego County.	Species was detected during the 2016 focused surveys. **Present**
Mammals				
American badger (*Taxidea taxus*)	Yes	SSC	Inhabit a diversity of habitats with principal requirements of sufficient food, friable soils, and relatively open, uncultivated ground. Grasslands, savannas, mountain meadows, and desert scrub.	The PSA contains habitat suitable to support this species. This is a wide-ranging but uncommon species. The CNDDB lists one occurrence within 1 mile of the PSA. **Moderate Potential**
Big free-tailed bat (*Nyctinomops macrotis*)	No	SSC	Inhabits arid, rocky areas; roosts in crevices in cliffs. Has been recorded in urban locations in San Diego County Species is rare in California.	No suitable roosting habitat in PSA. **Not Expected**
Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)	Yes	SSC	Coastal sage scrub, sage scrub/grassland ecotones, and chaparral communities.	The PSA contains habitat suitable to support this species. Also, the CNDDB lists one occurrence within 1 mile of the PSA. **High Potential**

Species Name	Covered under the NCCP (Yes/No)	Listing Status[1]	Habitat Requirements	Potential to Occur
Pallid bat (*Antrozous pallidus*)	No	SSC	Throughout So. Cal. from coast to mixed conifer forest; grasslands, shrublands, woodlands, & forest; most common in open, dry habitats w/ rocky areas for roosting; yearlong resident in most of range. Roosts in rock crevices, caves, mine shafts, under bridges, in buildings and tree hollows.	Limited potential habitat present within the PSA **Low Potential**
San Diego black-tailed jackrabbit (*Lepus californicus bennettii*)	Yes	SSC	Mostly found on the coastal side of local mountains in open habitats, usually avoiding dense stands of chaparral or woodlands.	The PSA contains habitat suitable to support this species. Also, the CNDDB lists one occurrence within 1 mile of the PSA. **High Potential**
San Diego desert woodrat (*Neotoma lepida intermedia*)	Yes	SSC	Variety of shrub and desert habitats primarily associated with rock outcroppings, boulders, cacti, or areas of dense undergrowth.	The PSA contains habitat suitable to support this species. T the CNDDB lists two occurrences within 1 mile of the PSA. **High Potential**
Townsend's big-eared bat (*Corynorhinus townsendii)*	No	CT	Species can be found in a variety of habitats throughout the state where appropriate roosting habitat exists. Primarily roosts in caves and cavern-like spaces; also in abandoned buildings, mines, culverts, box-like spaces in bridges and other structures, and large hollows in trees. Very sensitive to human disturbances.	No suitable roosting habitat within the PSA. The CNDDB lists one historical occurrence within 1 mile of the PSA. **Not Expected**
Mule deer	Yes	—	Species can be found in a variety of habitats.	The PSA contains habitat suitable to support this species. **High Potential**

[1]Explanation of state and federal listing codes:

Federal listing codes:
FE: Federally Endangered Species
FT: Federally Threatened Species
FC: Candidate for Federal Listing
Source: CDFW 2017

California listing codes:
CE: State-listed Endangered Species
CR: State-listed Rare Species
SSC: California Species of Special Concern
WL: CDFW Watch List
CFP: California Fully Protected

California Rare Plant Ranking (CNPS Lists):
1B. rare or endangered in California and elsewhere
2B. rare or endangered in California, more common elsewhere
4. plants of limited distribution–watch list
Threat Ranks: .1 – seriously endangered in California, .2 – fairly endangered in California, .3 – Not very endangered in California

Species Name	Covered under the NCCP (Yes/No)	Listing Status[1]	Habitat Requirements	Potential to Occur
CC: Candidate for State Listing				

Appendix E

2016 Field Habitat Assessment for Arroyo Toad (*Anaxyrus californicus*) for SDG&E TL 6975

2016 Field Habitat Assessment for Arroyo Toad (*Anaxyrus californicus*) for SDG&E TL6975

Prepared for SDG&E by ICF

Introduction and Methods

KP Environmental and ICF biologists conducted field surveys and desk-top analysis to identify potential biological resources that could be impacted by SDG&E's TL6975 project during 2015. The findings were presented in the Biological Constraints Report for the TL6975 Project (KP Environmental 2015). The report indicated that there is a moderate potential for Arroyo Toad (ARTO) to occur within the project survey area (defined as 300 foot-wide corridor centered on the proposed transmission line and 100 foot-wide corridor centered on access roads). The biological constraints analysis identified the following habitat types as providing suitable ARTO habitat:

- Southern Riparian Forest and Southern Willow Scrub
- Disturbed Southern Willow Scrub
- Oak Riparian
- Southern Coast Live Oak Riparian Forest

A field habitat assessment was conducted within the project survey area by ICF wildlife biologists Manna Warburton and Will Kohn on April 5, 2016. The purpose of the field habitat assessment was to field-truth the results of the 2015 constraints analysis for ARTO. Weather conditions during the field assessment were favorable; 65-70 °F, wind 1-3 mph, 30-50% cloud cover, and good visibility. The field habitat assessment was focused on those areas that provide potentially suitable ARTO habitat types (Figure 1) to determine if they provide suitable habitat elements such as unconsolidated sandy banks, shallow braided channels, 10-year flood benches, and connected upland habitat as identified in the Arroyo Toad Species Report (2014).

Additionally, ICF searched database sources to determine the closest known ARTO occurrences to the project. The closest known ARTO occurrences are within San Dieguito Creek approximately 5.5 miles southeast of the east end of the project (Figure 1).

2016 Field Habitat Assessments

Site 1. Site 1 includes San Marcos Creek crossed by Discovery Street (Figure 1). Nearby cross streets are West San Marcos Boulevard and San Pablo Drive. The site includes approximately 300 feet of the wetted stream channel of San Marcos creek upstream from Lake San Marcos. The site appears to support perennial surface

water and is heavily vegetated. Banks are clay soils that are heavily overgrown by willow (*Salix* spp.) and pepper trees (*Schinus molle*). Open canopy sections above the stream reach are occupied by cattails (*Typhus* sp.). Aquatic species observed include non-native largemouth bass (*Micropterus salmoides)* and slider turtle species (*Trachemys sp.)*.

This site does not contain appropriate ARTO habitat. Habitat features such as unconsolidated sandy banks, shallow braided channels, 10-year flood benches, or connected upland habitat were not present at this site.

Site 2. Site 2 is an ephemeral channel crossed by Acacia Drive (Figure 2). Nearby cross streets are West San Marcos Boulevard and Sequoia Street. The site includes approximately 450 feet of ephemeral stream channel of an un-named drain. The site was wetted at the time of the survey. Available surface water was restricted to the mouth of two storm drains situated in parallel, and to the southern channel downstream of the southern storm drain. Some unconsolidated sandy soils were present in the southern drain. Vegetation was a mix of native and exotic riparian scrub, with the north drain being occupied entirely by sedges (*Carex* spp.). No aquatic reptiles or amphibians were observed.

This site does not contain appropriate ARTO habitat. We observed low quality sandy banks as indicated by the presence of exotic grasses and low quality shallow braided channels that were heavily shaded and overgrown. This site did not possess 10-year flood banks or connectivity to upland habitat.

Site 3. Site 3 is an ephemeral channel adjacent to White Sands Drive (Figure 2). Nearby cross streets are Island Shore Way to the north and Sun Valley Road to the south. The site includes approximately 400 feet of ephemeral stream channel of an un-named drain. The site was dry at the time of the survey. The drain was armored with rock rip-rap. Vegetation consisted of willow riparian scrub. No aquatic reptiles or amphibians were observed.

There was some available surface water at the confluence of the above site with another un-named drain. This included a small pool and seeps around a heavily vegetated channel. Vegetation was the same as above. No aquatic reptiles or amphibians were observed.

This site does not contain appropriate ARTO habitat. Habitat features such as unconsolidated sandy banks, shallow braided channels, or 10-year flood benches were not present at this site. The site did possess connected upland habitat, but the gradient at the site (greater than 7%) was too high to be suitable for ARTO habitat.

Site 4. Site 4 was located in San Marcos Creek adjacent to Melrose Drive (Figure 3). Nearby cross streets are Diamond Street to the north and San Elijo Road to the south. The site includes approximately 900 feet of stream channel. The site was wetted and flowing at the time of the survey. The upstream portion of the site terminated in a natural bedrock pool that was wetted at the time of the survey. Vegetation consisted of willow riparian scrub. Soils were coarse but unconsolidated, and there were sections of un-vegetated understory in the survey reach. Aquatic species observed were exotic slider turtle species, which were only observed at the bedrock pool just outside the survey area. Red swamp crayfish (*Procambarus clarkia*) were observed in slower moving portions of the stream channel downstream.

This site contains marginal habitat for ARTO. Unconsolidated banks were present but aggregate sizes were generally on the large size (pebble to cobble). The wetted stream channel was shallow and braided in some sections. There were no 10-year flood benches. There was available connected upland habitat.

Site 5. Site 5 was an un-named ephemeral channel draining into San Elijo Creek, near Wilgen Drive (Figure 4). Nearby cross streets are Bresa De Loma Drive to the north and Harmony Grove Road to the south. The site includes approximately 400 feet of stream channel. The site was dry at the time of the survey. Vegetation consisted of disturbed native scrub and oak woodland. The stream channel consisted of unconsolidated sandy soils. No aquatic reptiles or amphibians were observed.

This site does not contain appropriate ARTO habitat. The drainage was highly channelized and narrow. The only unconsolidated soils were in the drain itself. The drain appears to be highly ephemeral, with no evidence of algae or other aquatic plants. The site does contain available connected upland habitat.

Site 6. Site 6 was an un-named storm water detention basin, near Kauana Loa Drive (Figure 1). Nearby cross streets are Oak View Way to the north and Harmony Grove Road to the south. The site includes approximately 550 feet of riparian area. The site was dry at the time of the survey. Vegetation consisted of emergent aquatic vegetation including tules (*Cyperus* sp.) and sedges bordered by willow. Soils were consolidated clay covered by rip-rap or exotic grasses and weeds.

This site does not contain appropriate ARTO habitat. We did not observed any unconsolidated sandy banks, shallow braided channels, 10-year flood benches, or connectivity to upland habitat.

Site 7. Site 7 was an un-named riparian area, near Country Club Drive (Figure 1). Nearby cross streets include El Rocko Road to the north and Harmony Heights Road to the south. The site appears to be contained entirely on private land and there was no available access. The site was not surveyed on foot. Based on the low probability of appropriate habitat, the ICFI biologist suggests that no additional effort be expended for this site.

This site does not contain appropriate ARTO habitat. We did not observed any unconsolidated sandy banks, shallow braided channels, 10-year flood benches, or connectivity to upland habitat.

Conclusion

Most of the project study area (Sites 1-3 and 5-7) do not provide suitable ARTO habitat. Site 4 does contain some of the elements that provide suitable habitat, but the conditions were marginal. Based on the lack of suitable habitat conditions within the survey area and the nearest ARTO occurrence records approximately 5.5 miles southeast of the project area, protocol ARTO surveys are not recommended.

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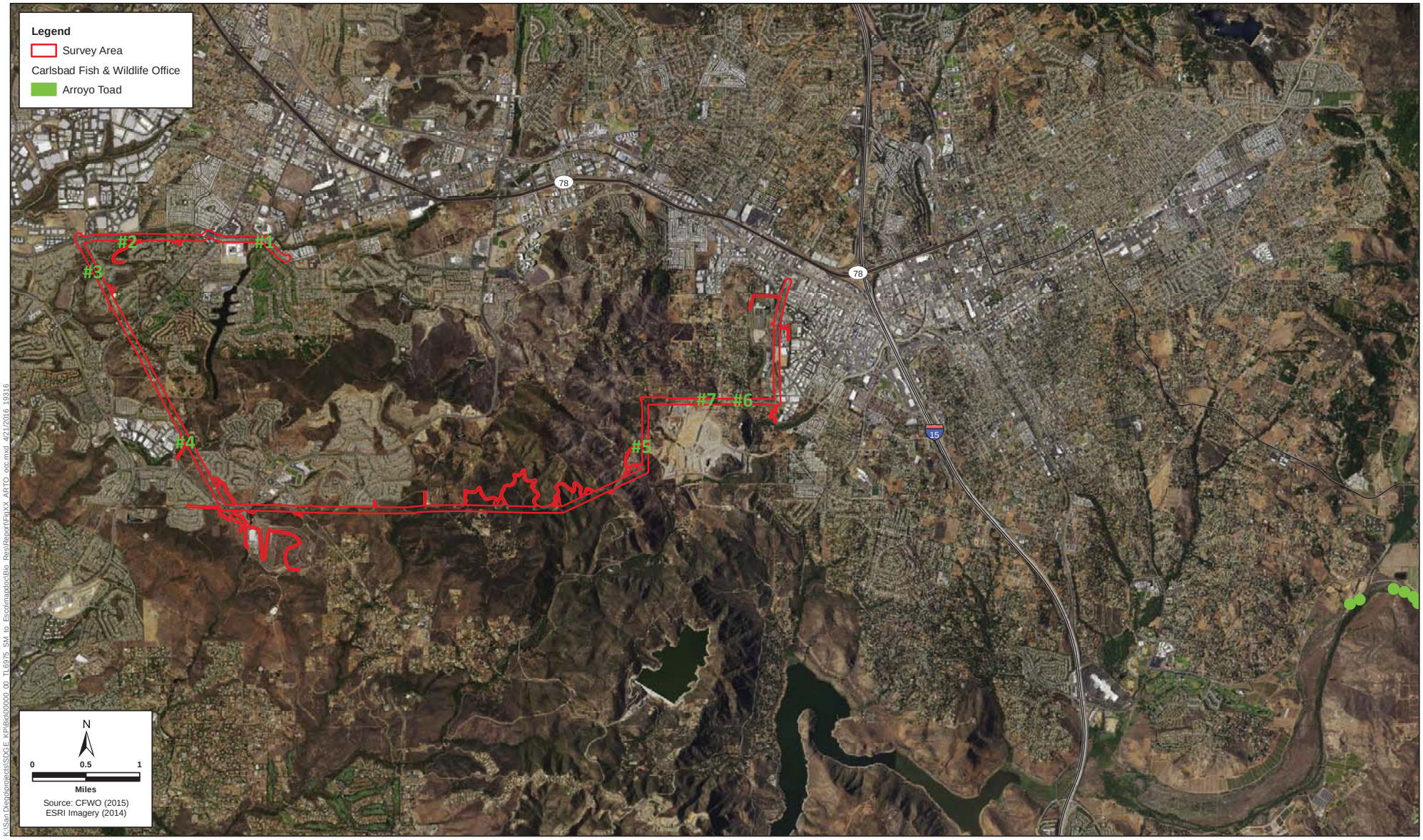

Figure 1. Arroyo Toad Occurrence and ARTO surveys TL6975

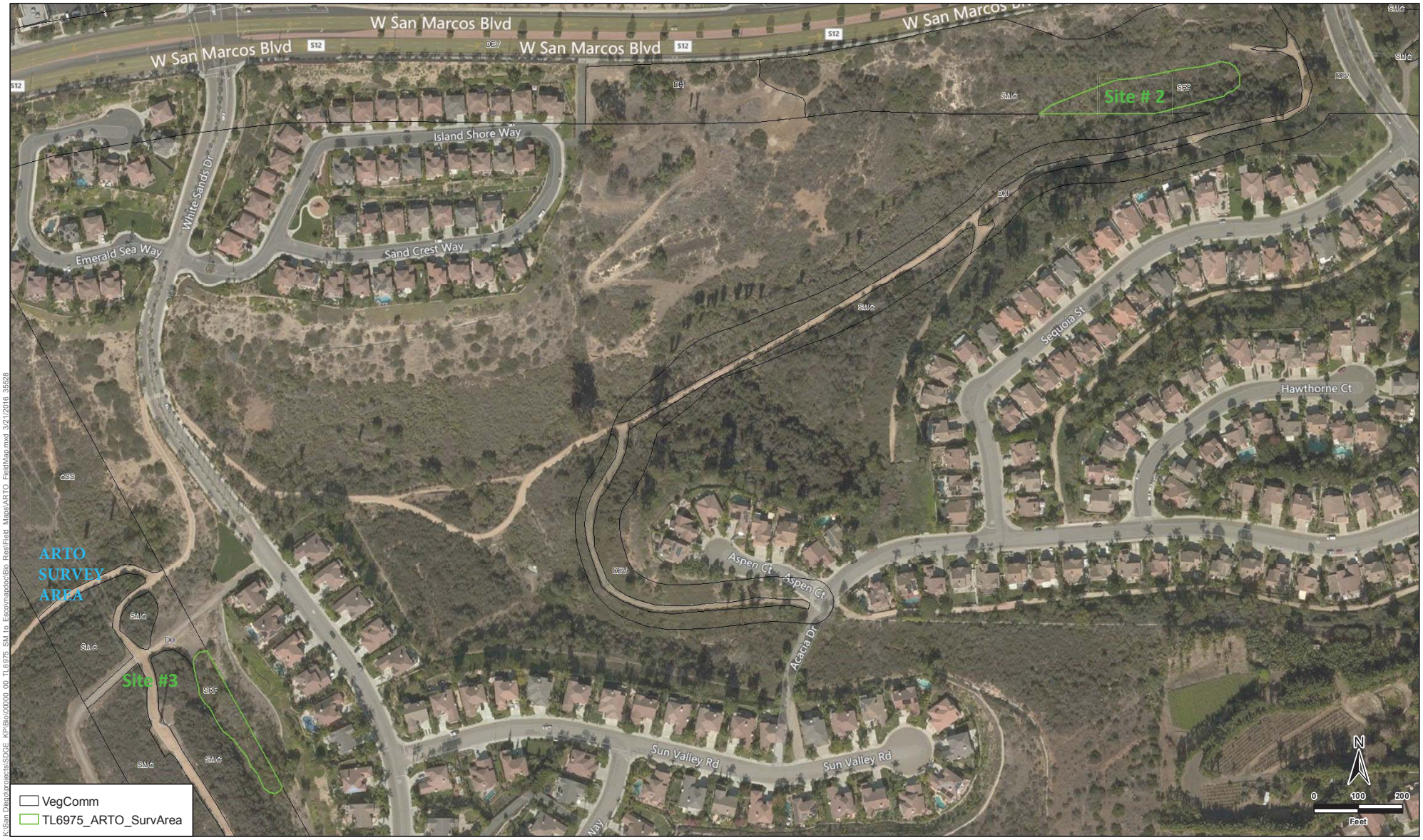

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Figure 2. ARTO Surveys SDG&E TL6975

Figure 3. ARTO Surveys SDG&E TL6975

Figure 4. ARTO Surveys SDG&E TL6975

Appendix F

SDG&E Natural Communities Conservation Plan Operational Protocols

7.1 Operational Protocols

Operational protocols represent an environmentally sensitive approach to traditional utility construction, maintenance and repair Activities recognizing that slight adjustments in construction techniques can yield major benefits for the environment. The appropriate Operational Protocols for each individual project will be determined and documented by the Environmental Surveyor. The information regarding the qualifications and responsibilities of the environmental surveyor is contained in Appendix B. The following mitigation measures shall be adhered to by SDG&E.

7.1.1 General Behavior for All Field Personnel

1. Vehicles must be kept on access roads. A 15 mile-per-hour speed limit shall be observed on dirt access roads to allow reptile species to disperse. Vehicles must be turned around in established or designated areas only.

2. No wildlife, including rattlesnakes, may be harmed, except to protect life and limb.

3. Firearms shall be prohibited on the rights-of-way except for those used by security personnel.

4. Feeding of wildlife is not allowed.

5. SDG&E personnel are not allowed to bring pets on the rights-of-way in order to minimize harassment or killing of wildlife and to prevent the introduction of destructive domestic animal diseases to native wildlife populations.

6. Parking or driving underneath oak trees is not allowed in order to protect root structures except in established traffic areas.

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7. Plant or wildlife species may not be collected for pets or any other reason.

8. Littering is not allowed. SDG&E shall not deposit or leave any food or waste on the rights-of-way or adjacent property.

9. Wild Fires shall be prevented or minimized by exercising care when driving and by not parking vehicles where catalytic converters can ignite dry vegetation. In times of high fire hazard, it may be necessary for trucks to carry water and shovels, or fire extinguishers in the field. The use of shields, protective mats, or other fire prevention methods shall be used during grinding and welding to prevent or minimize the potential for fire. Care should be exhibited when smoking in natural habitats.

10. Field crews shall refer environmental issues including wildlife relocation, dead or sick wildlife, hazardous waste, or questions about avoiding environmental impacts to the Environmental Surveyor. Biologists or experts in wildlife handling may need to be brought in by Environmental Surveyor for assistance with wildlife relocations.

7.1.2 Training

11. All SDG&E personnel working within the project area shall participate in an employee training program conducted by SDG&E, with annual updates. The program will consist of a brief discussion of endangered species biology and the legal protections afforded to Covered Species; a discussion of the biology of the Covered Species protected under this Subregional Plan; the habitat requirements of these Covered Species; their status under the Endangered Species Acts; measures being taken for the protection of Covered Species and their habitats under this Subregional Plan; and a review of the Operational Protocols. A fact sheet conveying this information will also be distributed to all employees working in the project area.

12. Designated SDG&E staff will conduct selected reviews of SDG&E operations. Any proposed modifications to Operational Protocols, procedures or conditions will be promptly provided to CDFG and USFWS for their review and input for required permit or Subregional Plan amendments.

7.1.3 Preactivity Studies

13. The Environmental Surveyor shall conduct preactivity studies for all activities occurring off of access roads in natural areas. The scope of these studies is included in Appendix A. The Environmental Surveyor will complete a preactivity study form contained in Appendix A, including recommendations for review by a biologist and construction monitoring as appropriate. Biologists should be called in when there is the potential for unavoidable impacts to Covered Species. The forms are for information only, and will not require CDFG or USFWS approval. These forms shall be faxed to CDFG and USFWS, along with phone notification, who will reply within 5 working days, indicating if they would like to review the project and/or suggest recommendations for post project monitoring. If a biologist is required, he/she will be contacted concurrent to notification to CDFG and USFWS. SDG&E's project may proceed during this time if necessary, in compliance with the recommendations of the biologist (For narrow endemic species see mitigation IV following Table 3.1). USFWS survey protocols performed by qualified biologists will be required for new projects which are defined as projects requiring CEQA review.

In those situations where the Environmental Surveyor cannot make a definitive species

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identification, an on-call biologist will be brought in. When the biologist is called, he or she will be contacted concurrently with CDFG and USFWS. The biologist will make the determination of the species in question and recommend avoidance or mitigation approaches to the Environmental Surveyor and a decision will be made. In those situations where more than one visit may be necessary to identify a given species, such as certain birds, no more than three site visits shall be required. It is expected that the typical USFWS search protocols will not be utilized in most situations due to the Plan's avoidance priority. Background information necessary to complete the annual report shall be collected on the preactivity study form and used by SDG&E to prepare the annual report.

14. In order to ensure that habitats are not inadvertently impacted, the Environmental Surveyor shall determine the extent of habitat and flag boundaries of habitats which must be avoided. When necessary, the Environmental Surveyor should also demark appropriate equipment laydown areas, vehicle turn around areas, and pads for placement of large construction equipment such as cranes, bucket trucks, augers, etc. When appropriate, the Environmental Surveyor shall make office and/or field presentations to field staff to review and become familiar with natural resources to be protected on a project specific basis.

15. SDG&E will maintain a library of rare plant locations known to SDG&E occurring within easements and fee owned properties. "Known" means a verified population, either extant or documented using record data. Information on known sites may come from a variety of record data sources including local agency Habitat Conservation Plans, pre-activity surveys, or biological surveys conducted for environmental compliance on a project site (e.g. initial study), but there is no requirement for development of original biological data. Plant inventories shall be consulted as part of pre-activity survey procedures.

7.1.4 Maintenance, Repair and Construction of Facilities

16. Maintenance, repair and construction Activities shall be designed and implemented to minimize new disturbance, erosion on manufactured and other slopes, and off-site degradation from accelerated sedimentation, and to reduce maintenance and repair costs.

17. Routine maintenance of all Facilities includes visual inspections on a regular basis, conducted from vehicles driven on the access roads where possible. If it is necessary to inspect areas which cannot be seen from the roads, the inspection shall be done on foot, or from the air.

18. When the view of a gas transmission line marker becomes obscured by vegetation on a regular basis requiring repeated habitat removal, consideration shall be given to the replacement of markers with taller versions.

19. Erosion will be minimized on access roads and other locations primarily with water bars. The water bars are mounds of soil shaped to direct flow and prevent erosion.

20. Hydrologic impacts will be minimized through the use of state-of-the-art technical design and construction techniques to minimize ponding, eliminate flood hazards, and avoid erosion and siltation into any creeks, streams, rivers, or bodies of water by use of Best Management Practices.

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21. When siting new facilities, every effort will be made to cross the wetland habitat perpendicular to the watercourse, spanning the watercourse to minimize the amount of disturbance to riparian areas (See Figure 4).

22. Gas and other facilities cross streambeds and require maintenance and repair. During such times water may be temporarily diverted as long as after disturbance natural drainage patterns are restored to minimize the impact of the disturbance and help to reestablish or enhance the native habitat. Erosion control during construction in the form of intermittent check dams and culverts should also be considered to prevent alteration to natural drainage patterns and prevent siltation.

23. Impacts to wetlands shall be minimized by avoiding pushing soil or brush into washes or ravines.

24. During work on facilities, all trucks, tools, and equipment should be kept on existing access roads or cleared areas, to the extent possible.

25. Environmental Surveyor must approve of activity prior to working in sensitive areas where disturbance to habitat may be unavoidable.

26. Insulator washing is allowed from access roads if other applicable protocols are followed.

27. Brush clearing around facilities for fire protection shall not be conducted from March through August without prior approval by the Environmental Surveyor. The Environmental Surveyor will make sure that the habitat contains no active nests, burrows, or dens prior to clearing.

28. In the event SDG&E identifies a covered species of plant within a 10' radius around power poles, which is the area required to be cleared for fire protection purposes, SDG&E shall notify USFWS (for ESA listed plants), and CDFG (for CESA listed plants), in writing, of the plant's identity and location and of the proposed Activity, which will result in a Take of such plant. Notification will occur ten (10) working days prior to such Activity, during which time USFWS or CDFG may remove such plant(s). If neither USFWS or CDFG have removed such plant(s) within the ten (10) working days following the notice, SDG&E may proceed to complete its fire clearing and cause a Take of such plant(s).

    When fire clearing is necessary in instances other than around power poles, and the potential for impacts to Covered Species exists, SDG&E will follow the preactivity study and notification procedures in Operational Protocol number 13.

29. Wire stringing is allowed year round in sensitive habitats if conductor is not allowed to drag on ground or in brush and vehicles remain on access roads.

30. Maintenance of cut and fill slopes shall consist primarily of erosion repair. In situations where revegetation would improve the success of erosion control, planting or seeding with native hydroseed mix may be done on slopes.

31. Spoils created during maintenance operations shall be disposed of only on previously disturbed areas designated by the Environmental Surveyor or used immediately to fill eroded areas. Cleared vegetation shall be hauled off the rights-of-way to a permitted disposal location.

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32. Within 6 months of Plan approval, environmentally sensitive tree trimming locations will be identified in the tree trim computer data base system utilized by tree trim contractors. (This data base also tracks the date of each tree trim, type of tree, where threatening dogs reside, etc.). The Environmental Surveyor should be contacted to perform a preactivity survey when trimming is planned in environmentally sensitive areas. Whenever possible, trees in environmentally sensitive areas (determined by CDFG and SDG&E) will be scheduled for trimming in the non-sensitive times.

33. No new Facilities and Activities shall be planned which disturb vernal pools, their watersheds, or impact their natural regeneration. Continued historic maintenance of existing infrastructure utilizing existing access roads is allowed to continue in areas containing vernal pool habitat. New construction of overhead infrastructure which spans vernal pool habitats is allowed as long as the placement of facilities or the associated construction activities in no way impact the vernal pools.

34. If any previously unidentified dens, burrows, or plants are located on any project site after the preactivity survey, the Environmental Surveyor shall be contacted. Environmental Surveyor will determine how to best avoid or minimize impacting the resource by considering such methods as project or work plan redevelopment, equipment placement or construction method modification, seasonal/time of day limitations, etc...

35. The Environmental Surveyor shall conduct monitoring as recommended in the preactivity survey report. At completion of work, the Environmental Surveyor shall check to verify compliance, including observing that flagged areas have been avoided and that reclamation has been properly implemented. Also at completion of work, the Environmental Surveyor is responsible for removing all habitat flagging from the construction site.

36. The Environmental Surveyor shall conduct checks on mowing procedures, to ensure that mowing is limited to a 12-foot wide area on straight portions of the road (slightly wider on radius turns), and that the mowing height is no less than 4 inches.

37. Supplies or equipment where wildlife could hide (e.g., pipes, culverts, pole holes) shall be inspected prior to moving or working on them to reduce the potential for injury to wildlife. Supplies or equipment that cannot be inspected or from which animals could not be removed shall be capped or otherwise covered at the end of each work day. Old piping or other supplies that have been left open, shall not be capped until inspected and any species found in it allowed to escape. Ramping shall be provided in open trenches when necessary. If an animal is found entrapped in supplies or equipment, such as a pipe section, the supplies or equipment shall be avoided and the animal(s) left to leave on its own accord, except as otherwise authorized by CDFG.

38. All steep-walled trenches or excavations used during construction shall be inspected twice daily (early morning and evening) to protect against wildlife entrapment. If wildlife are located in the trench or excavation, the Environmental Surveyor shall be called immediately to remove them if they cannot escape unimpeded.

39. Large amounts of fugitive dust could interfere with photosynthesis. Fugitive dust created during clearing, grading, earth-moving, excavation or other construction activities will be controlled by regular watering. At all times, fugitive dust emissions will be controlled by limiting on-site vehicle speed to 15 miles per hour.

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40. Before using pesticides in areas where burrowing owls may be found, a pre-activity survey will be conducted.

7.1.5 Maintenance of access roads shall consist of:

41. Repair of erosion by grading, addition of fill, and compacting. In each case of repair, the total area of disturbance shall be minimized by careful access and use of appropriately sized equipment. Repairs shall be done after preactivity surveys conducted by the Environmental Surveyor and in accordance with the recommendations regarding construction monitoring and relevant protocols. Consideration should be given to source of erosion problem, when source is within control of SDG&E.

42. Vegetation control through grading should be used only where the vegetation obscures the inspection of facilities, access may be entirely lost, or the threat of Facility failure or fire hazard exists. The graded access road area should not exceed 12'-wide on straight portions (radius turns may be slightly wider) (See Figure 23).

43. Mowing habitat can be an effective method for protecting the vegetative understory while at the same time creating access to a work area. Mowing should be used when permanent access is not required since, with time, total revegetation is expected. If mowing is in response to a permanent access need, but the alternative of grading is undesirable because of downstream siltation potential, it should be recognized that periodic mowing will be necessary to maintain permanent access.

44. Maintenance work on access roads should not expand the existing road bed (See Figure 23).

45. Material for filling in road ruts should never be obtained from the sides of the road which contain habitat without approval from Environmental Surveyor..

7.1.6 Construction of new access roads shall comply with the following:

46. SDG&E access roads will be designed and constructed according to the SDG&E *Guide for Encroachment on Transmission Rights-of-Way (4/91).*

47. Access roads will be made available to managers of the regional preserve system subject to coordination with SDG&E.

48. New access roads shall be designed to be placed in previously disturbed areas and areas which require the least amount of grading in sensitive areas during construction whenever possible (See Figure 5). Preference shall be given to the use of stub roads rather than linking facilities tangentially.

49. SDG&E will consider providing access control on access roads leading into the regional preserve system where such control provides benefit to sensitive resources.

50. New access road construction is allowed year round. Every effort shall be made to avoid constructing roads during the nesting season. During the nesting season, the presence or absence of nesting species shall be determined by a biologist and appropriate avoidance and minimization recommendations followed.

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7.1.7 Construction and Maintenance of Access Roads Through Streambeds

51. Construction of new access roads through streambeds requires a Streambed Alteration Agreement from CDFG and/or consultation with the Army Corps of Engineers.

52. Maintenance or construction vehicle access through shallow creeks or streams is allowed. However, no filling for access purposes in waterways is allowed without the installation of appropriately sized culverts. The use of geotextile matting should be considered when it would protect wetland species.

53. Staging/storage areas for equipment and materials shall be located outside of riparian areas. (See Figure 23).

7.1.8 Survey Work

54. Brush clearing for foot paths or line-of-sight cutting is not allowed from March through August in sensitive habitats without prior approval from the Environmental Surveyor, who will ensure that activity does not adversely affect a sensitive species.

55. SDG&E survey personnel must keep vehicles on existing access roads. No clearing of brush for panel point placement is allowed from March through August without prior approval from the Environmental Surveyor.

56. Hiking off roads or paths for survey data collection is allowed year round so long as other protocols are met.

7.1.9 Emergency Repairs

57. During a system emergency, unnecessary carelessness which results in environmental damage is prohibited.

58. Emergency repair of facilities is required in situations which potentially or immediately threaten the integrity of the SDG&E system, such as pipe leaks, or downed lines, slumps, slides, major subsidence, etc. During emergency repairs the Operational Protocols contained in this Subregional Plan shall continued to be followed to fullest extent possible.

59. Once the emergency has stabilized, any unavoidable environmental damage will be reported to the Environmental Surveyor by the foreman. The Environmental Surveyor will develop a mitigation plan and ensure its implementation is consistent with this Subregional Plan.

7.1.10 Activities of Underlying Fee Owners

60. Most SDG&E rights-of-way are held in easement only. The activities of underlying fee owners cannot be controlled by SDG&E and are not covered by this Subregional Plan.

61. When sensitive habitat exists on either side of a utility right-of-way, SDG&E will not oppose underlying fee owners dedicating said property to conservation purposes. Underlying fee owners are expected to comply with applicable federal, state, and local regulations.

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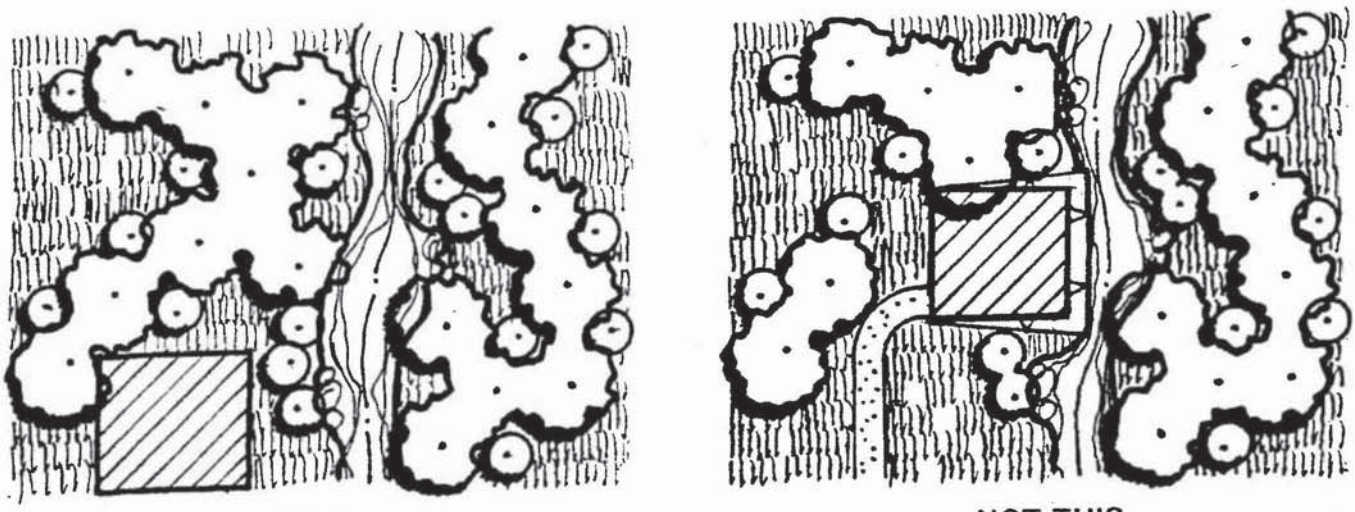

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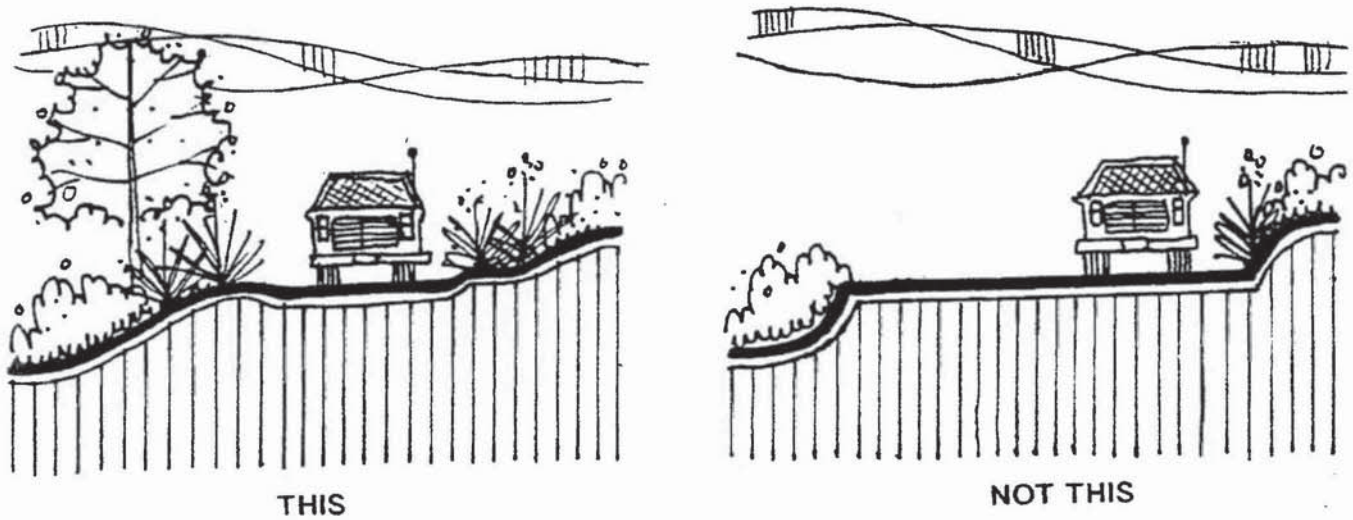

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ACCESS ROAD MAINTENANCE SHOULD NOT EXPAND THE EXISTING ROAD BED

FIGURE

23

Operational Protocol Diagrams

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D.3 1995 Subregional NCCP

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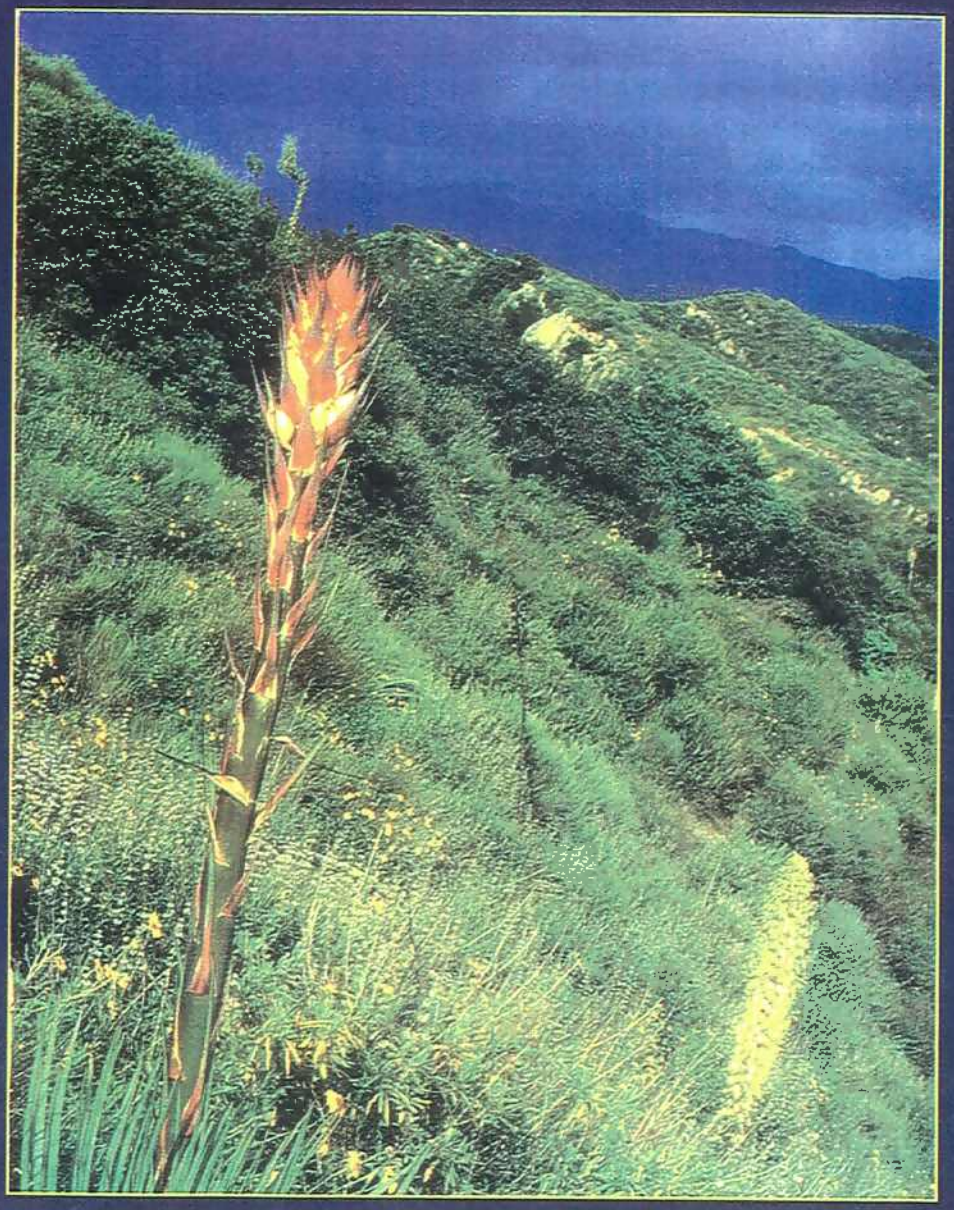
Subregional Natural Community Conservation Plan



REAL ESTATE OPERATIONS NATURAL RESOURCE GROUP

San Diego Gas & Electric Company

Subregional Natural Community Conservation Plan

Prepared By:
San Diego Gas & Electric
Real Estate Operations Department
Last Edited: December 15, 1995

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Subregional Natural Community Conservation Plan

TABLE OF CONTENTS ***PAGE***

LETTER TO READERS v

EXECUTIVE SUMMARY vi

1 INTRODUCTION 1

1.1 Purpose 7

1.2 Issues 9

1.3 Approach 11

1.4 Scoping 12

2 PROPOSED ACTIONS 18

2.1 Maintenance & Construction Activities 18

2.2 Emergencies 30

3 BIOLOGY 31

3.1 Data Base References 32

Types of Habitat Within Subregional Plan Area 41

Table 3.1 -- Covered Species List 46

3.2 Impact Assessment 71

4 LAND USE 77

4.1 Existing Land Use Activities 77

4.2 Proposed Land Use Activities 78

4.3 Projected Grading Disturbances 79

4.4 Methodology for Estimating Grading Disturbance 79

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5 RELATION TO OTHER REGIONAL CONSERVATION PLANS 97

6 SDG&E ACTIVITIES WITHIN HABITAT CONSERVATION PLAN PRESERVES 98

6.1 Maintenance of Existing Facilities 99

6.2 Installation of New Facilities 99

7 MITIGATION 101

7.1 Operational Protocols 103

7.2 Habitat Enhancement Measures 111

7.3 Fee-Owned Rights-of-Way 116

7.4 Mitigation Credits 120

Table 7.4 Mitigation Ratios 122

8 ALTERNATIVES 123

9 FUNDING 125

10 ACKNOWLEDGMENTS 126

APPENDIX A -- SCOPE OF PREACTIVITY SURVEY 128

APPENDIX B -- SDG&E ENVIRONMENTAL SURVEYOR PROGRAM CERTIFICATION 132

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LIST OF FIGURES

		PAGE
1	SDG&E Electric Transmission System	4
2	SDG&E Natural Gas Transmission System	5
3	SDG&E Subregional Plan Area	6
3.1a-h	Selected Sensitive Plants/Animals	61
3.1i	Known Distribution of Coastal Cactus Wren in San Diego County	69
4	Operational Protocol Diagram Placement of Overhead Poles	27
5	Operational Protocol Diagram New Access Roads Avoid Sensitive Areas/Stub Access Roads	28
6	Operational Protocol Diagram Habitat Crossings/Siting Substations	29
7	Habitat Conservation Planning Areas in the San Diego Region	34
8a	Multiple Species Conservation Program	35
8b	Vegetation Map of Multiple Species Conservation Program	36
8c	Vegetation Map of Multiple Habitat Conservation Program	37
8d	Vegetation Map of Multiple Habitat Conservation and Open Space Program	38
9	Orange County Southern Subregion NCCP	39
10	Riverside County Habitat Conservation Plan	40
10a	Miguel Substation Site Plan	75
11a	Vacant Positions in Transmission Corridors	84
11b	Vacant Positions in Orange County	85
12	Typical Substation Impact Diagram	86
13	Typical New Electric Transmission Line Requiring New Right-of-Way (Steel) Impact Diagram	87

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14 Typical New Electric Transmission Line Requiring New Right-of-Way (Wood) Impact Diagram....88

15 Typical New Electric Transmission Line in Existing Right-of-Way (Steel) Impact Diagram....89

16 Typical New Electric Transmission Line in Existing Right-of-Way (Wood) Impact Diagram....90

17 Typical Electric Transmission Line Reconductor in Existing Right-of-Way (Steel) Impact Diagram....91

18 Typical Electric Transmission Line Reconductor in Existing Right-of-Way (Wood) Impact Diagram....92

19 Typical Electrical Transmission or Distribution Repair Impact Diagram....93

20 Typical Gas Line Leak Repair Impact Diagram....94

21 Typical Gas Pipeline Relocation Impact Diagram....95

22 Typical Corrective Streambed Repair to Protect Gas Line Impact Diagram....96

23 Operational Protocol Diagram Construction Near Streams/Access Road Maintenance....110

24 Mitigation Flow Chart....115

25a Fee-Owned Rights-of-Way....118

25b Fee-Owned Rights-of-Way in Orange County....119

26 Preactivity Survey Form (Sheets 1 and 2)....130-131

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SDG&E San Diego Gas & Electric
P.O. BOX 1831 • SAN DIEGO, CA 92112-4150 • 619 / 696-2000

October 1995

FILE NO.

TO: READERS OF THIS DOCUMENT

There are many things that make San Diego a unique and desirable place to live: the weather, the topography, its proximity to Mexico, the beaches, the ocean, and its diverse environmental resources. Each of these things contribute to a quality of life that draws people to this region. SDG&E shares the belief with many San Diegans that growth should not result in destruction of the very qualities that make this community a desirable place to live. SDG&E also believes that our quality of life can be preserved while still providing opportunities for economic growth.

In recent years, protection of this region's environmental quality has become a major planning issue stimulating ballot initiatives, open space/preservation plans, and protective species "listings" under the State and Federal Endangered Species Acts. It has become apparent that environmental protection is a major public concern and will be with us for some time. SDG&E has recognized the importance of Environmental Protection and Enhancement by weighing it equally in our Corporate Goals to Quality Customer Service. The Company is standing behind our Environmental Protection and Enhancement goal by changing our maintenance and construction methods, by participating directly on all of the NCCP plans in the region, by making financial contributions to said plans, and by preparing this Subregional Plan that not only provides up front mitigation for future activities, but also allows the use of SDG&E's network of rights-of-way and other lands for conservation and preservation.

The primary purpose and ultimate objective of this Subregional Plan is not just to reduce regulatory hurdles, but to make a positive contribution toward the preservation and enhancement of San Diego's natural resources. This plan should be reviewed and evaluated by you, the reader, with that stated purpose and objective in mind. We, at the Company, feel that this Subregional Plan can fulfill our environmental objectives and still be good for business.

Sincerely,
San Diego Gas & Electric

Don L. Rose
Project Manager
Real Estate Management and Planning Section

EXECUTIVE SUMMARY

Background

With the proposed listing of the California Gnatcatcher, as a threatened species, the Endangered Species Act (ESA) suddenly became a significant constraint to all forms of development in southern California including the development of energy infrastructure. The State responded by using the recently legislated Natural Community Conservation Planning (NCCP) program as a tool to work with local communities to develop habitat conservation strategies to protect a wide variety of plants and animals which included the Gnatcatcher's coastal sage scrub habitat. One of the goals of the NCCP is to eliminate the need for future listings. The NCCP also allows for localized administration of the federal ESA and the California ESA (CESA) if certain steps are followed including the preparation of habitat conservation plans pursuant to the ESA and the NCCP.

San Diego Gas & Electric (SDG&E) saw the potential benefits offered by the NCCP to the region's resources and to the Company's ability to reduce regulatory processes typically involved with the maintenance and expansion of a gas and electric energy system. Therefore, the Company launched into preparation of its subregional habitat conservation plan also known as the 50-Year Permit. When approved, the Plan will provide for 25 years of ESA & CESA approvals with renewals to 50 years and possibly beyond.

Provision of the Plan

The Plan covers the following activities, as well as, estimates and defines the mitigation which may be required for the biological impacts of the installation, use, maintenance, and repair of the existing gas and electric system and typical expansions to that system. These activities are required to provide adequate, reliable, and safe service to existing customers and to meet the demands of new growth. The Plan does not cover extraordinary expansions to SDG&E's gas and electric system. The Plan also covers biological impacts (within the boundaries of the Plan area only), associated with new electric transmission lines including interconnections that do not project more that 30 miles outside of SDG&E's service territory, Rainbow to Santee natural gas transmission pipeline, new gas transmission lines under 30" in diameter and less than 20 miles in length, new substations and regulator stations with habitat impacts under 20 acres, and new natural gas compressor stations with habitat impacts under 10 acres. Projects not covered by the Plan will be evaluated on a case-by-case basis, but will be evaluated by the standards set forth in this plan.

Since the future cannot be accurately predicted, the Plan allows for up to 400 acres of impacts in natural areas before requiring a Plan amendment. However, based on current technology, construction methods and standards, population forecasts, and local agency General Plans, the Plan anticipates only 124 acres of grading impacts in natural areas as a result of typical expansion and maintenance activities over the next 25 years (areas which are "natural" are not paved and do

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not contain ornamental landscaping or otherwise urbanized uses). Impacted areas may be home to one or more of the 110 species covered by this Plan. To mitigate these impacts, the Plan provides the following forms of mitigation:

- The most important mitigation measure is avoidance of impacts whenever possible. To accomplish this, new Operational Protocols for working in the field were developed. There are 61 protocols, all listed in Chapter 7 of the Plan. In addition, field crews attend a series of on-going classes on how to behave and operate construction and maintenance equipment in environmentally sensitive areas.

- Certain fee-owned rights-of-way will be available for use as wildlife corridors in order to connect the region's conservation areas. SDG&E will also allow the use of certain rights-of-way held in easements for such corridors with the consent of the underlying land owner.

- Mitigation Credits of approximately 240 acres will be established upon commencement of the Subregional Plan. The bank will be debited to mitigate for actual impacts as projects are realized. The wildlife agencies will determine the extent and quality of any impact. If needed, the Mitigation Credits will be replenished.

- Restoration and enhancement are also available as mitigation measures, sometimes instead of debits to the Mitigation Credits, and other times in addition to such debits. Restoration will be used in some cases regardless of other forms of mitigation.

The benefits to SDG&E are that the permit processing typically required by the ESA & CESA will not be required. However, the wildlife agencies will still monitor projects, evaluate impacts, and prescribe mitigation in a much more time-efficient process. The Plan sets up a framework for the wildlife agencies to fulfill their regulatory responsibilities in an efficient manner and provides SDG&E with certainty over required mitigation.

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Purpose of this Agreement is to Clarify the Vernal Pool Mitigation Measures of the Subregional Plan

SDG&E Subregional Plan – Clarification Document

1. Add to existing page vii of **Executive Summary**, before the section entitled Not Provided For:

A. In 2004, SDG&E amended its NCCP/HCP, which was originally approved in 1995, to incorporate minor modifications reflecting the Company's evolving approaches to resource management policy changes and the Company's many years of experience implementing the plan and permit. These changes are summarized as follows:

SDG&E and the Wildlife Agencies have developed a "vernal pool clarification" for provisions of the NCCP/HCP which provides a basis for SDG&E to carry out a range of utility activities without delay or disruption. This protocol addresses vernal pool resources located both on and off SDG&E access roads and establishes clear standards for avoidance, minimization, and mitigation of permanent and temporary impacts. As a result of these protocols, SDG&E and the Wildlife Agencies anticipate that SDG&E operations and maintenance activities, and the use of existing access roads associated with system expansion, development of new projects, and emergency repairs can be undertaken without the need for case-by-case analysis by, or negotiations with, the Service and/or the Department.

DEFINITIONS

Vernal Pool: A Vernal Pool is defined herein as consisting of both (1) the vernal pool basin, or ponding area, which provides the maximum area of ponded water (i.e., the inundation area when the pool is full), plus (2) the vernal pool watershed, which is the area surrounding the basin that provides sufficient hydrology to allow complete filling of the vernal pool basin in an average rainfall year.

Vernal Pool Basin (Ponding Area): The maximum area of vernal pool inundation, extending to and including the uppermost margins of the pool area that holds water when a pool is full (i.e., the ponding area itself exclusive of the surrounding watershed).

Vernal Pool Watershed: The area surrounding a vernal pool basin that provides sufficient hydrology, including adequate surface area and micro-topography, to enable complete filling of a vernal pool basin in an average rainfall year.

Vernal Pool Management Plan: A plan that provides a practical framework with specific management measures for restoring, enhancing, protecting, and maintaining vernal pool

resources. The management plan shall include goals/objectives; methodology; success criteria and standards, including the control of invasive species which could threaten long-term persistence of the vernal pools; timelines; a minimum five year monitoring component (not to exceed seven years with at least one year in which the pool completely fills) to document the stability of populations and judge the success of restoration actions and the effectiveness of management practices; and a process and funding mechanism for managing adaptively, and in perpetuity, vernal pool habitat.

KEY ELEMENTS

The protocol set forth in this clarification document reinforces SDG&E's commitment to avoid permanent impacts to all vernal pools during construction of new facilities and confirms the assurance of the Wildlife Agencies that impacts to on – and off-road vernal pools associated with SDG&E operations and maintenance activities will be authorized. Furthermore, the Wildlife Agencies deem that the mitigation measures described in this protocol are consistent with the Subregional Plan.

- Under the SDG&E Subregional Plan impacts to vernal pools will be avoided during construction of new facilities, and new access roads, throughout the area covered by the Plan. Impacts to vernal pools related to other covered activities are authorized, including operations and maintenance activities occurring within and outside the footprint of existing access roads; use of existing access roads to support system expansion; and emergency repairs. In such cases, SDG&E will:

  1. Avoid impacts to the maximum extent practicable, including rerouting existing access roads when feasible.
  2. If avoidance of all impacts to vernal pools is not practicable, SDG&E will minimize impacts by implementing the measures described in this Clarification Document (Section 7.1.11).

- During operations and maintenance activities occurring outside the footprint of existing access roads, permanent and temporary impacts may occur. Permanent and temporary impacts to those vernal pools will be minimized and mitigated.

- Vernal pool surveys to determine if covered species are present or absent will not be conducted. During operations and maintenance activities occurring within and outside the footprint of existing access roads, permanent impacts will be mitigated at a 3:1 ratio. At SDG&E's discretion, some access roads containing road rut vernal pools will be graded on an as needed basis; other roads will be maintained on a regularly scheduled basis.

- Mitigation may be satisfied through either on-site restoration of vernal pools or the use of areas pre-approved by the Wildlife Agencies. Mitigation credits, as approved by the Wildlife Agencies, may be accumulated and used through advance creation, restoration, and enhancement of vernal pool basin area. The areas pre-approved by the Wildlife Agencies for creation, restoration, and/or enhancement of vernal pool basin area will be of high quality (e.g., Carmel Mesa and Otay Mesa) and will support species covered by the Plan. Pre-approved vernal pool mitigation areas must be managed and monitored pursuant to a Management Plan approved by the Wildlife Agencies.

2. Add the words "VERNAL POOLS" to the descriptive text in the bottom sketch in Figure 4. Add new drawings to Figure 4 that assist SDG&E in avoiding impacts to the pools. *SDG&E to provide.*

IX. Vernal Pools

This vernal pool protocol reinforces SDG&E's commitment to avoid permanent impacts to all vernal pools during construction of new facilities and new access roads, and confirms the assurance by the Wildlife Agencies that impacts to all vernal pools associated with SDG&E operations and maintenance activities are authorized under the Subregional Plan. Furthermore, the Wildlife Agencies deem that the mitigation measures described in this protocol are consistent with the Subregional Plan.

SDG&E intends to avoid impacts to vernal pools during new construction. During operations and maintenance activities occurring outside the footprint of existing access roads, permanent and temporary impacts may occur provided that they are mitigated consistent with this clarification document. Temporary and permanent impacts will be minimized. During operations and maintenance activities occurring within existing access roads, which may include grading and/or crowning of those roads, permanent impacts may occur. At SDG&E's discretion, some access roads containing vernal pools will be graded on an as needed basis; other roads will be maintained on a regularly scheduled basis.

Other than pre-activity surveys, no vernal pool surveys will be conducted to determine presence or absence of covered species. Mitigation for permanent impacts will be fixed at a 3:1 ratio for all impacts.

When required, mitigation may be satisfied through either on-site restoration of vernal pools or the use of areas pre-approved by the Wildlife Agencies. Mitigation credits, as approved by the Wildlife Agencies, may be accumulated and used through advance creation, restoration, and enhancement of vernal pool basin area. The areas pre-approved by the Wildlife Agencies for creation, restoration, and/or enhancement of vernal pool basin area will be of high quality (e.g., Carmel Mesa and Otay Mesa) and will support

species covered by the Plan. Pre-approved vernal pool mitigation areas must be managed and monitored pursuant to a Management Plan approved by the Wildlife Agencies.

In the event that SDG&E Activities impact vernal pools, the following mitigation measures will be implemented:

Temporary Impacts

Off Road

SDG&E Activities, such as but not limited to, placement of structures, insetting poles, poles anchors and stubs, and underground facility access may have temporary impacts on off road vernal pools (Chapter 2, Proposed Activities, provides a complete list of SDG&E Activities). In those cases, SDG&E will restore those pools pursuant to the following protocols:

1. Seed from vernal pool indicator plants shall be collected from the pools that will be impacted when the plants have dried and before the seed disperses, and scattered in the affected vernal pool when the SDG&E Activity is completed. Seed collection may not be possible when precluded by weather or physical constraints, such as the Activity occurring at a time of year when no seed is present. If SDG&E needs to work in vernal pool areas under wet conditions, vehicular and foot traffic will be directed away from the pools. If vehicular and foot traffic cannot be directed away from the pools due to construction requirements, other impact minimization measures shall be used, such as the installation of steel plates or fabric mats. A qualified biologist will be present to ensure that all minimization measures are implemented.

2. Vernal pool *inoculum* shall be collected only when it is dry to avoid damaging or destroying fairy shrimp cysts. A hand trowel or similar instrument should be used to collect the sediment. Soil should be collected in chunks. Once the Activity is completed, the sediment will be replaced in the bottom of the disturbed pool.

3. If seed has been scattered and/or *inoculum* sediment has been replaced, a qualified biologist will monitor the vernal pool for successful restoration, for two subsequent wet seasons. Successful restoration will be determined/defined as the continued presence of vernal pool species (or threatened/endangered species if present) roughly comparable to the pre-disturbance condition. Furthermore, covered species identified in the pre-activity survey must be observed to fully mature, with fairy shrimp producing cysts and plant species producing seed. Unsuccessful restoration will be considered a permanent impact and will be mitigated at a 3:1 ratio at a pre-approved vernal pool mitigation area. If measures 1 and 2 above cannot be implemented, mitigation will occur at the pre-approved vernal pool mitigation area at a 3:1 ratio.

Within Road

During new construction activities, if vehicular traffic cannot be directed away from vernal pools due to construction requirements, impact minimization measures shall be used, such as the installation of steel plates or fabric mats. A qualified biologist will be present to ensure that all minimization measures are implemented.

Permanent Impacts

SDG&E Activities, such as, but not limited to road maintenance may have unavoidable permanent impacts on vernal pools (Chapter 2, Proposed Activities, provides a complete list of SDG&E Activities). To mitigate for those impacts, SDG&E will undertake the following measures:

1. Restoration Reporting[1] - If SDG&E does not mitigate at a pre-approved vernal pool restoration area, then Wildlife Agencies' concurrence on an acceptable mitigation site is required prior to any impacts to vernal pools. Recognizing that restoration efforts may vary somewhat, SDG&E shall prepare a vernal pool restoration plan for each Activity based on a generalized approach for vernal pool restoration, with which the Wildlife Agencies have previously concurred (Refer to Attachment 1). If further refinements to this generalized approach are necessary on a case-by-case basis, the Wildlife Agencies will respond to the restoration plan within 30 days. If the Wildlife Agencies do not comment within 30 days, SDG&E will proceed with its proposed Activities.

2. Mitigation Ratio – Impacts to vernal pools, with or without Covered Species present, will be mitigated at a 3:1 ratio for all impacts. Mitigation may occur onsite provided that a sufficient number of degraded pools exist in the vicinity and have been approved by the Wildlife Agencies for restoration and /or enhancement. Otherwise, mitigation will be implemented offsite at the pre-approved vernal pool restoration area. Mitigation credits, as approved by the Wildlife Agencies, may be accumulated and used through advance creation, restoration, and enhancement of vernal pool basin area. The areas pre-approved by the Wildlife Agencies for creation, restoration, and/or enhancement of vernal pool basin area will be of high quality (e.g., Carmel Mesa and Otay Mesa) and will support species covered by the Plan. Pre-approved vernal pool mitigation areas must be managed and monitored pursuant to a Management Plan approved by the Wildlife Agencies.

SDG&E may relocate an existing access road to minimize potential impacts to vernal pools. This rerouting would only be done if it was possible without compromising operational integrity and safety. The mitigation value of the rerouted road would be at

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[1]Restoration of degraded vernal pools on a pre-approved restoration area is considered appropriate as mitigation for permanent impacts. Steps will be implemented to ensure that hydrologic function is not significantly impaired.

1:1 level.[2] Under such circumstances, the mitigation requirement for impacts to vernal pools, with or without Covered Species present, will be the net of the total new impacts to vernal pools or pool complexes less the vernal pools or complexes being avoided within the existing roadway. The net impact will be mitigated at the pre-approved vernal pool mitigation area at a 2:1 ratio at least 1:1 ratio of which is creation.

Impacts to vernal pools with or without Covered Species present that occur on military lands will be mitigated at a pre-approved vernal pool mitigation area at a 3:1 ratio.

Monitoring and Reporting

Restoration of temporary impacts to vernal pools shall be accomplished by a qualified ecologist/biologist and managed (including monitoring) for two subsequent wet seasons.

Restoration for permanent impacts to vernal pools shall be accomplished by a qualified ecologist/biologist and managed and monitored for a minimum of five years, but not to exceed seven years with at least one year in which the pool completely fills.

SDG&E's Subregional Plan Annual Report will include a vernal pool section that tracks and reports the amount and type (temporary or permanent) of impacts to vernal pools, and reports the status of restoration/enhancement efforts.

4. Add new Avoidance and Minimization protocols to Chapter 7.1 as a new Section 7.1.11 Vernal Pool Complexes:

Avoidance and Minimization Measures:

62. SDG&E will avoid permanent impacts to vernal pools in the construction of all new Facilities, including new access roads, throughout the area covered by this Plan.

63. If the Wildlife Agencies recommend relocation of an access road that bisects a vernal pool area, SDG&E will take into account cost and operational considerations and determine within 30 days whether to relocate the road. When roads are relocated to avoid vernal pools, the realigned road will be clearly demarcated and barriers will be placed to prevent vehicle access on the old road.

64. For all construction activities occurring adjacent to vernal pools, SDG&E will work with a qualified biologist having local experience with vernal pool resources, to site roads or facilities in a manner that avoids potential impacts to vernal pools. (See Figure 4.) All vernal pools adjacent to the project footprint, plus a five-foot buffer (where feasible), will be fenced with orange safety fencing to ensure no people or equipment impact the vernal pools during construction activities. A silt fence will be installed along the base of the roadway to prevent

[2] This language is consistent with and replaces paragraph 2 of Article IX Vernal Pools of the Subregional Plan.

increased erosion or sedimentation during construction in vernal pool areas. Gravel bags will be placed along the bottom of the fence to minimize erosion or sedimentation into vernal pools, and removed upon completion of construction.

65. During operations and maintenance activities occurring within the footprint of existing access roads, which may include grading and/or crowning of those roads, permanent impacts to vernal pools may occur. To prevent water from ponding on existing access roads, SDG&E will grade and crown roads using a grader. Other mechanisms may be employed that achieve the same result. Thereafter, the roads will be maintained on a regular basis as determined by SDG&E, to prevent future ponding, thereby minimizing native plant and animal species from becoming established. Roads in vernal pool complex areas within MCAS Miramar and the Torrey Hills, Otay Mesa, Carmel Mesa, Del Mar Mesa, and Tierrasanta communities in the City of San Diego may be less frequently graded to preserve habitat value, but will be graded as needed to preserve safe and reliable access to SDG&E facilities.

66. During modifications and maintenance of existing access roads, or the creation of new access roads adjacent to vernal pools, a qualified biological monitor, having local experience with vernal pool resources, shall oversee and monitor all such activities occurring adjacent to vernal pools. The biological monitor shall:

    - Hold a pre-construction meeting to brief the crew on the location of sensitive resources and construction boundaries.
    - Direct installation of protective fencing to prevent encroachment of people or equipment into vernal pools during construction activities and to ensure that no fence posts are placed within vernal pools.
    - If it is not feasible to place protective fencing without impacting vernal pools, during the dry season sandbags will be placed along the perimeter of the vernal pool and removed post-construction (or prior to the on-set of the wet season).

    An environmental surveyor will ensure that fencing to protect vernal pools is appropriately placed and is maintained in good condition for the duration of the project. (See Figure 4.)

67. When vernal pools are located above gas lines and repair work is necessary, work areas will be minimized and soil will be stockpiled for replacement after repairs.

68. During construction of new facilities, including access roads adjacent to vernal pools, a biological monitor will document all accidental or unanticipated impacts to vernal pools. The impacts will be provided to the Wildlife Agencies in a post-construction report with 30 days of project completion.

69. To the extent feasible, all construction equipment shall be fueled and maintained at least 100 feet from the nearest vernal pools.

SDG&E NCCP/HCP SUBREGIONAL PLAN

VERNAL POOL CLARIFICATION

This signature page is attached to the Final Vernal Pool Clarification document to identify that the Vernal Pool Clarification approved on May 26, 2004 by the United States Fish & Wildlife Service and California Department of Fish and Game shall be applied to SDG&E projects that have the potential to impact vernal pools within the Subregional Plan Area.

Date 7/26/04
Therese O'Rourke, Assistant Field Supervisor
U.S. Fish & Wildlife Service
Carlsbad Fish & Wildlife Office

Date 7/23/04
Gail Presley, Conservation Planning Program Manager
California Department of Fish and Game

Date 7/21/2004
Donald E. Haines
SDG&E
Manager, Land Planning & Natural Resources

Not Provided For

Projects which are currently subject to permits from the California Public Utility Commission (CPUC), Coastal Commission, Energy Commission, State Lands Commission and several other state and federal agencies will continue to be. Therefore, many projects will be subject to the California Environmental Quality Act & National Environmental Policy Act reviews. It is intended that the subsequent environmental reviews use this Plan to evaluate the impacts to covered species and their habitats.

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1 Introduction

San Diego Gas & Electric Company (SDG&E) is a California public utility providing natural gas, electric, and other services to customers within its service territory, which includes San Diego County and portions of Orange and Riverside Counties. SDG&E's ability to provide these services depends upon the installation, operation, maintenance and repair of an evolving array of public utility facilities located throughout its service territory and, to a limited extent, beyond. For example, SDG&E's electric and natural gas service is provided by means of two essentially separate systems. The electric system includes steam electric generating plants, electric transmission lines, electric substations, and an electric distribution network (See Figure 1). The natural gas system includes compressor stations, transmission pipelines, regulator stations and distribution pipelines (See Figure 2). Regular maintenance and repair of these systems is performed to prolong their useful life and to ensure adequate, safe, and reliable service. The location and type of new Facilities is dependent upon the service demands of SDG&E's customers load centers while existing Facilities are not. However, both are subject to the regulatory authority and requirements of the California Public Utilities Commission (CPUC), the California Energy Commission (CEC), and various other federal and state agencies.

Over the past several years, the natural lands and wildlife habitats in San Diego County, Orange County, and Riverside County (Moreno Compressor Station only), have been subjected to increasing pressures from various land development activities. The Natural Community Conservation Planning Act (NCCP), authorizing comprehensive management and conservation of habitat and multiple wildlife species, is California's response to the ever increasing numbers of species protected and being considered for protection under the state and federal endangered species acts. In recognizing the need to develop a comprehensive management plan for the sensitive biological resources of the region, agency wildlife biologists, consulting and research biologists, landowners,

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businesses, and representatives of conservation groups have proposed a conservation strategy which includes the establishment of a habitat preserve system intended to ensure long-term habitat survival and individual species viability.

SDG&E's Activities may impact certain sensitive plant and animal species or their habitat which may include species listed as threatened or endangered by the United States Endangered Species Act (ESA) or the California Endangered Species Act (CESA). To ensure implementation of appropriate avoidance, minimization, or mitigation measures for these potential impacts, SDG&E has prepared this Subregional Plan following the multiple species and habitat conservation planning approach authorized by ESA and the California NCCP. The intent of this Subregional Plan is to identify SDG&E's existing and prospective Activities as a public utility which may have an impact upon Covered Species or their habitat and to define those measures SDG&E will employ to avoid, minimize or mitigate any such impacts. SDG&E's plan is a significant part of the overall regional conservation planning strategy for two reasons: 1) It will provide a net improvement in habitat values by providing foundational resources for the establishment of connecting corridors between habitat preserves; and 2) It can be used for other regional public service providers as a model.

Over the last several years, a number of local governments have been working to develop comprehensive habitat and multi-species conservation plans within the boundaries of their respective jurisdictions, generally referred to as "Habitat Conservation Plans." Ultimately, a network of such plans will be implemented throughout much of the area which is or which may be affected by SDG&E's operations and covered by SDG&E's Subregional Plan (See Figure 3). Both SDG&E's Subregional Plan and the Habitat Conservation Plans will maximize the protection and conservation of wildlife and habitat by utilizing the comprehensive multi-species and habitat conservation approach. However, unlike the Subregional Plan, Habitat Conservation Plans otherwise address the unique municipal concerns of local government: local government's interest in local land development and other land use activities with federal and state wildlife conservation mandates.

In contrast, SDG&E's public utility operations and service span the jurisdictional boundaries of a large number of local governments and provide benefits to the State as a whole. SDG&E's operations as a public utility are, therefore, matters of statewide concern. To ensure uniform, adequate, safe, and reliable operations for the benefit of the State's citizens, SDG&E's operations are regulated at the state level primarily by the CPUC but also by various other state agencies, rather than at the local level. Accordingly, this Subregional Plan balances SDG&E's Activities necessary to meet the continuing and growing demands of its customers for electric and gas service with federal and state wildlife conservation mandates.

The applicability of Habitat Conservation Plans will be triggered by local permit applications filed by persons seeking to pursue projects falling within the regulatory authority of such local governments. However, because SDG&E's projects do not fall within the regulatory authority of local governments, none of the underlying Habitat Conservation Plans will be suitable to address the particular and unique issues raised by

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public utilities. SDG&E has resolved this problem by developing this Subregional Plan in coordination with the United States Fish and Wildlife Service (USFWS) and California Department of Fish & Game (CDFG) addressing SDG&E's activities and their potential impact upon Covered Species or their habitat throughout the area of its operations.

This Subregional Plan will cover all of SDG&E's Activities conducted within the area described in Figure 3 (Subregional Plan Area), and will function independently of the Habitat Conservation Plans of local governments, which may also cover any part of the Subregional Plan Area. This Subregional Plan takes into consideration the objectives of such local Habitat Conservation Plans and coordinates the implementation of this Subregional Plan with the proper functioning of such local Habitat Conservation Plans, as they become effective, to maximize the benefits to Covered Species and their habitat. This Subregional Plan will describe SDG&E's Activities that have the potential to impact Covered Species or their habitat and which will be subject to the provisions of this Subregional Plan. The nature and extent of such potential impacts will be identified together with those protective and conservation measures SDG&E will undertake to avoid such impacts and, where impacts are unavoidable, to minimize and mitigate the same. Protective and conservation measures will include (a) the implementation of Operational Protocols established in coordination with USFWS and CDFG, (b) assisting USFWS and CDFG to establish wildlife corridors which interconnect one habitat preserve or wildlife conservation area to another utilizing certain rights-of-way, and (c) by causing the conveyance of valuable habitat land to a wildlife management agency for conservation purposes.

SDG&E, USFWS, and CDFG have, concurrent with the effective date of this Subregional Plan, entered into a long term Implementing Agreement which describes the legal rights and obligations of such parties regarding the implementation and maintenance of this Subregional Plan. The Implementing Agreement authorizes SDG&E to conduct its Activities within the Subregional Plan Area provided the same are performed in conformity with this Subregional Plan. Such authorizations are memorialized in permits issued by USFWS and CDFG, pursuant to ESA, CESA and NCCP. Such permits authorize SDG&E Activities and any resulting Incidental Take of Covered Species or impact to their habitat. The Subregional Plan and the Implementing Agreement can be amended to permit the addition of areas within which SDG&E conducts its operations and which are not yet covered by the Subregional Plan, such as the desert regions. Finally, the Implementing Agreement will provide assurances by USFWS and CDFG that, absent Unforeseen Circumstances, the terms and conditions of SDG&E's Activities authorization and Permits including, but not limited to, the required mitigation measures, will not change during the term of the Implementing Agreement. The long term duration and constancy of the Implementing Agreement and, therefore, of this Subregional Plan benefit SDG&E both by streamlining the permit process, enabling the early and efficient planning of avoidance and mitigation measures in project design, and by implementing a more cost-effective approach to wildlife conservation. Covered Species and their habitat will derive long term benefits from the implementation of the Subregional Plan.

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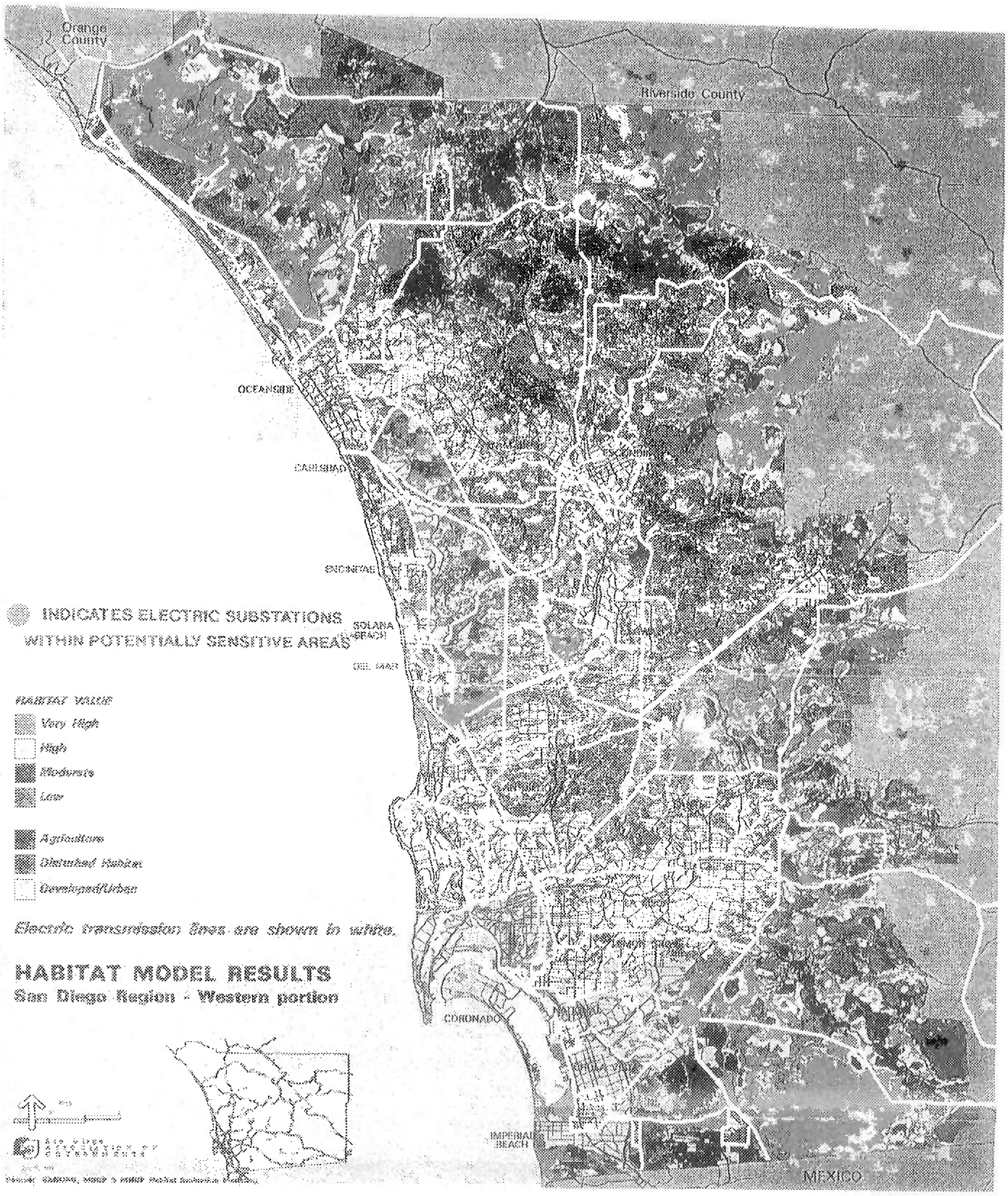
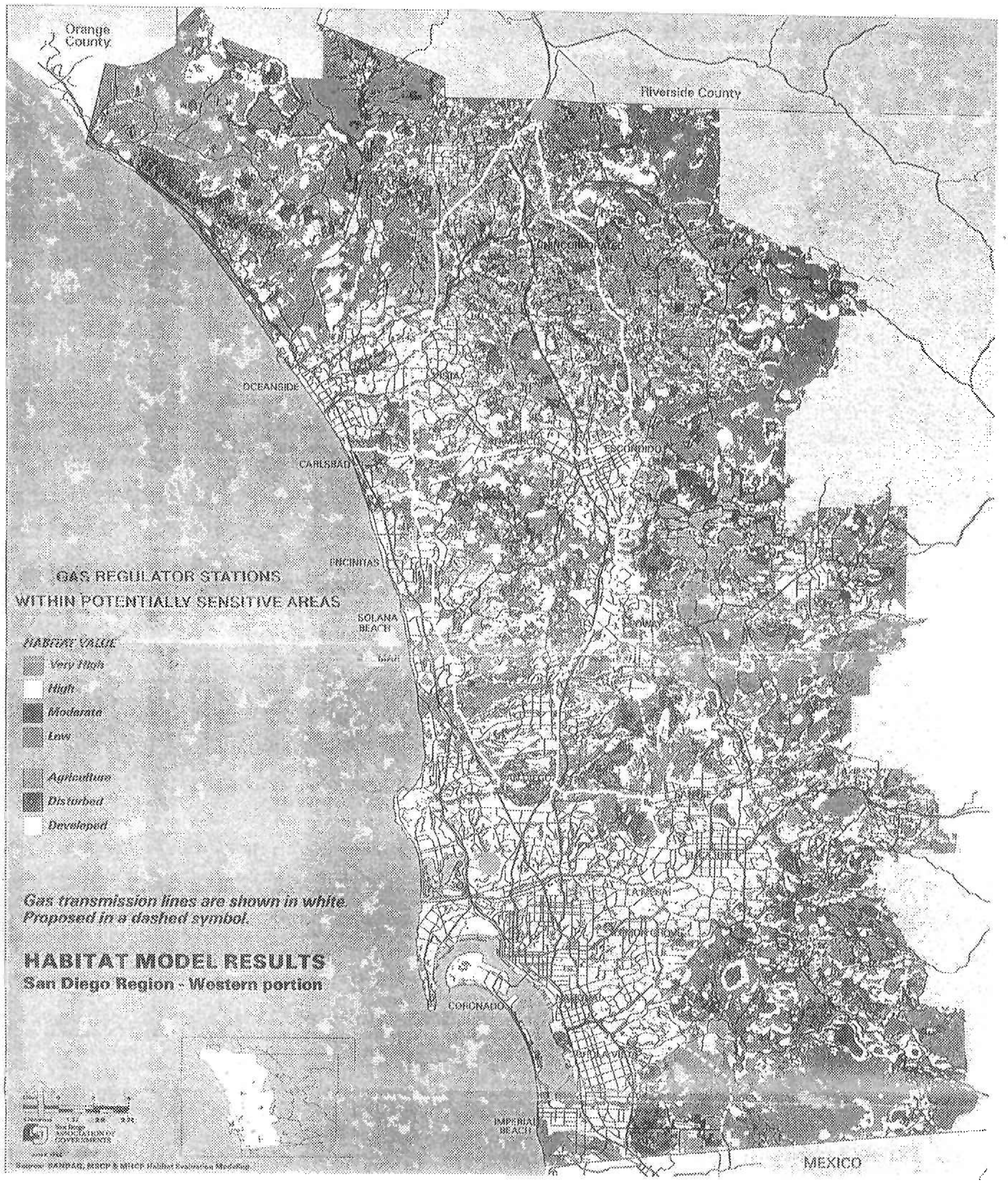


SDG&E ELECTRIC FACILITIES IN ORANGE COUNTY ARE SHOWN ON FIGURE 9

SDG&E Electric Transmission System

FIGURE 1



SDG&E GAS FACILITIES IN RIVERSIDE COUNTY ARE SHOWN ON FIGURE 10

SDG&E Natural Gas Transmission System

FIGURE 2

Indicates approximate location of SDG&E Moreno Gas Compression Station

SEE DETAIL A

Indicates boundary of Riverside County Habitat Conservation Agency (RCHCA)

San Bernadino County

Riverside County

ORANGE COUNTY COASTAL SUBREGION NCCP

Orange County Southern Subregion NCCP

MORENO VALLEY

DETAIL A

MHCP

City of Carlsbad HMP

MSCP/MHCP Overlap

Pacific Ocean

MHCP

County of San Diego-Multiple Habitat Conservation and Open Space Plan

MSCP

San Diego River HCP

Sweetwater River HCP

Mexico

Indicates Boundary of SDG&E Subregional Plan Area

Regional Location Map

SDG&E Subregional Plan Area

Military Lands Contained Within This NCCP Are Treated Separately From NCCP Management Plans

FIGURE 3

1.1 Purpose

The purpose of this Subregional Plan is to establish and implement a long term agreement between SDG&E, USFWS and CDFG for the preservation and conservation of Covered Species and their habitat, while allowing SDG&E to develop, install, maintain, operate, and repair its Facilities which are or become necessary to provide electric, natural gas and other Services to the customers served by SDG&E within the Subregional Plan Area.

Because of the evolving and continuing nature of SDG&E's operations within the Subregional Plan Area, SDG&E, USFWS and CDFG have determined that a comprehensive multiple species and habitat conservation plan under ESA Section 10(a) and NCCP will most effectively preserve and enhance Covered Species and their native habitats. The long term multi species and habitat planning approach avoids the less effective, less efficient and more costly process of obtaining federal and state Incidental Take permits on a species-by-species, project-by-project basis.

This Subregional Plan is intended to meet the legal prerequisites of USFWS and CDFG for their issuance of ESA and CESA Incidental Take permits for all Covered Species and their habitat. Specifically, this Subregional Plan (a) authorizes the incidental take of listed and other covered species, such take being incidental to the otherwise lawful Activities of SDG&E, (b) minimizes and mitigates the impacts of such incidental take to the maximum extent possible, (c) assures adequate funding for the implementation of this Subregional Plan, (d) authorizes incidental take will not appreciably reduce the likelihood of the survival or recovery of any listed species or candidate species in the wild, (e) imposes measures to be implemented by SDG&E as requirements for or conditions of the authorization and permits granted herein which will be met by

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SDG&E, (f) generally satisfies and fulfills all measures required by USFWS as being necessary or appropriate for the purposes of this Subregional Plan, including any measures determined to be necessary by the parties to deal with unforeseen circumstances, (g) will provide for the conservation and protection of Covered Species and their habitat within the Subregional Plan Area, as if each of the species, subspecies, or populations were listed under ESA, and (h) satisfies all legal requirements necessary for CDFG to issue a Management Authorization for Covered Species under Fish & Game Code Sections 2081 and 2835, and NCCP Section 2825.

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1.2 Issues

Natural Resource Issues

Impact to Covered Species and their habitat is one of SDG&E's primary environmental concerns associated with its utility operations. The area of Southern California which includes the Subregional Plan Area contains the highest diversity of plant and animal life in the continental United States. As a result of the rapid pace of urbanization in the last half of the twentieth century, SDG&E's Subregional Plan Area also has the highest number of plants and animals in the continental United States which have become protected or are proposed for protection under ESA or CESA.

In the absence of multi-species and habitat conservation guidelines, continued urbanization and other land uses pose significant risks of extirpation or extinction of Covered Species. SDG&E's implementation of standard operating procedures to avoid or minimize impacts to natural resources is a major focus of this plan.

Land Use Issues

Several profound differences exist between the nature and extent of impacts to Covered Species or their habitat which may be caused by agricultural and typical urban development from those which may be caused by the operation of a gas and electric public utility like SDG&E. Agricultural and urban development usually occur on established parcels of land with generally permanent impacts to Covered Species and their habitat as the same are replaced with the project. Agricultural and urban

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development occurs in checkerboard fashion over the available land. With some limited exceptions (e.g., the infrequent installation of electrical substations or natural gas regulator stations), most utility projects are linear in nature requiring limited grading; therefore, impacts upon Covered Species and their habitats caused by the operations of an electric and gas public utility like SDG&E are avoided entirely or are only minimal or temporary. The potential exists, however, for slight habitat fragmentation by virtue of the presence of the utility and its access roads which may facilitate unapproved intrusion into an ecosystem.

In addition to San Diego County, southern Orange and Riverside Counties continue to experience strong socio-economic growth pressures, causing equally strong pressures to be exerted on the regional ecosystem's long term viability. Consequently, the following land use and operational issues were examined within the Subregional Plan Area in the preparation of this document:

- Impacts of adjacent land uses, particularly real estate development, on the Covered Species and their habitat which exist in SDG&E's easements and fee-owned rights-of-way and other land holdings.

- Existing conditions in SDG&E's easements and fee-owned rights-of-way and other land-holdings of natural resources and degree of habitat protection and conservation.

- Land use compatibility.

- Coordination with Habitat Conservation Plans.

- SDG&E's Subregional Plan strategies which include avoidance, minimization, mitigation, and plan implementation strategies.

- Impacts to Covered Species from operation & maintenance activities.

- Impacts to Covered Species from new construction.

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1.3 Approach

Neither CESA nor ESA had been enacted when much of the SDG&E public utility Facilities were planned and constructed. In 1993, SDG&E cooperated with USFWS and CDFG to develop and implement Operational Protocols designed to avoid impacts to specified species and their habitat. However, certain installation, maintenance, operation and repair Activities could not be modified to avoid an Incidental Take of Listed Species. For these Activities, Incidental Take permits were either sought by SDG&E from USFWS and CDFG through either ESA Section 7 and CESA Section 2090 consultation procedures where the appropriate federal or state nexus occurred, or through the ESA Section 10 or CESA Sections 2081/2084 process.

The protection, preservation and conservation of endangered, threatened, candidate species, and other sensitive species and their habitats under ESA, CESA, NCCP and other wildlife acts on a species-by-species basis has resulted in limited success. For SDG&E, such an approach is far too cumbersome and incomplete to adequately identify and conserve the biological and physical resources upon which each such species is dependent. In fact, the implementation of specific protective measures for one species, in the species-by-species/project-by-project approach, may actually cause deleterious conditions to another species. Habitat Conservation Plans, such as the SDG&E Subregional Plan which incorporates comprehensive protection or conservation measures needed for multiple species and their habitat, will most closely approximate an ecosystem conservation approach. It is intended that the biological and physical resources comprising sensitive habitats (ecosystems) be preserved intact to the greatest extent possible. All species within managed habitats will be afforded greater protections than before.

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1.4 Scoping

Applicable Law

Federal

The federal Endangered Species Act (ESA), 15 U.S.C. Section 1531 et seq., provides for the protection and conservation of fish, wildlife and plants which have been listed as threatened or endangered. Activities otherwise prohibited by ESA Section 9 and subject to the civil and criminal enforcement provisions of ESA Section 11 may be authorized for appropriate federal agency action pursuant to ESA Section 7 and for other non-federal actions pursuant to ESA Section 10.

Other federal laws enacted with the intent to protect and conserve Listed Species of fish, wildlife, plants, and their habitats include, but are not limited to, the following:

- The Migratory Bird Treaty Act (including the protective provisions for game and wild birds), The Migratory Bird Conservation Act, and the Migratory Bird Hunting Stamp Act, 16 U.S.C. Section 701 et seq., are intended to protect birds and restore their necessary habitat. Otherwise unlawful activities which may impact such birds or their habitat may be authorized in accordance with applicable regulation, by permit or other entitlement, as appropriate.

- The National Environmental Policy Act, 42 U.S.C. Section 4321 et seq., mandates that federal agencies consider the environmental impacts of their actions, with the intent of avoiding or minimizing any

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such impact prior to conducting federal projects (including the authorization of private projects).

- The Federal Water Pollution Control Act, 33 U.S.C. Section 1251 et seq., provides for certain protections to wildlife relating to the discharges of pollutants into the waters of the United States.

State

Similarly, the California Endangered Species Act (CESA), California Fish and Game Code, Section 2050 et seq., provides for the protection and conservation of fish, wildlife and plants which have been listed by the State of California as threatened, endangered, or as candidate species. Activities prohibited by Section 2080 and subject to the civil and criminal enforcement provisions of Section 12000 et seq., may be authorized for appropriate state actions pursuant to CESA Section 2090 et seq. and for other persons pursuant to CESA Sections 2081 and 2084.

Other state laws enacted with the intent of protecting and conserving fish, wildlife, plants, and their habitats include, but are not limited to, the following:

- Fish and Wildlife Protection and Conservation, California Fish and Game Code, Section 1600 et seq., requires that state agencies, public utilities, and other persons notify CDFG before conducting any project which may adversely affect aquatic habitats of fish or wildlife.

- Native Plant Protection Act (NPPA), California Fish and Game Code, Section 1900 et seq., is intended to preserve, protect and enhance endangered or rare native plants.

- Natural Community Conservation Planning Act (NCCP), California Fish and Game Code Section 2800 et seq. authorizes agreements between CDFG and any person for the comprehensive management and conservation of habitat and multiple wildlife species and permit, as appropriate, as a part of such plan, the Incidental Taking of Listed Species and candidate species under Sections 2830 and 2835.

- California Environmental Quality Act (CEQA), California Public Resources Code Section 21000 et seq., is intended to require state agencies to consider environmental qualitative factors, including the conservation of fish, wildlife and plant species and the preservation of representations of all plant and animal communities for future generations prior to conducting any project.

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Pursuant to ESA Section 10(a), USFWS may issue permits, under such terms and conditions as the Secretary may prescribe, for acts otherwise in violation of ESA Section 9 to enhance the propagation or survival of any affected species or for the taking of any species incidental to an otherwise lawful activity. Further, for threatened species, the Secretary may issue such regulations as necessary to provide for the conservation of such species under ESA Section 4(d). Similarly, CESA Section 2081 enables CDFG to grant management authorization for the take of threatened, endangered or candidate species subject to such terms and conditions as it may prescribe. NCCP authorizes CDFG to enter into agreements with any person to develop and implement a natural community conservation plan to provide comprehensive management and conservation of multiple wildlife species and their habitat. Any such plan may authorize the taking of candidate, threatened or endangered species whose protection and conservation is provided for in any such plan pursuant to NCCP Sections 2830 and 2835.

1.4.2 Coordination

As a result of urbanization, agriculture and other development, the amount of habitat remaining to support Covered Species is rapidly dwindling. The effective protection, preservation and conservation of Covered Species is dependent upon the implementation of effective and properly functioning conservation plans for the habitats and ecosystems essential to the survivability of such species.

Habitat Conservation Plans are now being prepared by various local governments or government entities within the Subregional Plan Area such as the City of San Diego's Multiple Species Conservation Program, San Diego Association of Governments' Multiple Habitat Conservation Program, the County of San Diego's Multiple Habitat Conservation and Open Space Plan, and the South Orange County NCCP Subregional Plan.

Local land development is regulated by local government through enactments of land use, zoning and permitting ordinances pursuant to their police powers derived from the California Constitution. Local Habitat Conservation Plans will be adopted, implemented and enforced pursuant to these same laws. Persons whose development activities fall within the jurisdiction of these local governments will then be authorized to take species/habitats caused by their activities. Local government authority to take species/habitat comes from the issuance of take authorization issued by USFWS and CDFG, pursuant to the State and Federal ESA and the NCCP. Developer compliance will be supervised by local government, USFWS, and CDFG.

SDG&E's land use Activities, the regulation of such Activities, and its Subregional Plan, are unique. The California Constitution, through Article

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XII, created and empowered the CPUC with the exclusive jurisdiction to regulate the affairs and operations of public utilities. Pursuant to Section 8 of Article XII, the enactments of local governments which attempt to regulate public utility operations, in matters over which the CPUC has the power to regulate, are invalid.

The CPUC's exclusive jurisdiction to regulate public utilities recognizes the statewide interest in preserving for the benefit of the State's citizens uniform, safe, and reliable utility service. Were the converse true, and if local governments were allowed to regulate the activities of public utilities, public utilities would be subject to a mosaic of divergent local requirements from as many local governments as there are in the Subregional Plan Area. SDG&E serves a statewide interest.

This Subregional Plan and the Habitat Conservation Plans govern different activities and different persons, often in the same area. The identified Activities in the Subregional Plan are regulated by various state agencies, primarily the CPUC, while the activities identified in the Habitat Conservation Plan are subject to local regulation. In effect the Subregional Plan, governing Activities serving a statewide interests, acts as an overlay across areas also covered by Habitat Conservation Plans, thereby governing activities of municipal concern. As a result of the cooperative efforts of various local governments and public bodies within San Diego, Orange, and Riverside Counties, a reserve of habitat is being established which includes reserve core areas, narrow endemic reserves, and connecting corridors. These reserve areas would be managed primarily for listed plants and animals, with a varying goal of maintaining at least 60 - 90% of the natural lands as high quality habitat, depending on the subregional plan and jurisdiction. The corridors are designed to maintain connections between the primary reserves and to support supplemental populations between reserves. This Subregional Plan is designed to be consistent with the local habitat conservation plans and the overall preserve planning effort.

1.4.3 Activities Covered by Plan and Those Requiring Further CEQA/NEPA Coverage

There are two broad categories of activities covered in the Plan: Operation and Maintenance (O&M) and new construction. O&M pertains to existing facilities and does not require permits; therefore, CEQA/NEPA review is also not required. The Plan recognizes that O&M activities can, at times, have impacts. To mitigate for O&M impacts the Plan contains an extensive list of field protocols designed to minimize disturbance to habitat. The company has also committed to allow use of selected transmission rights-of-way for wildlife corridors. This use of rights-of-way for corridors is specifically intended to mitigate O&M activities and nothing else.

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New construction may be subject to CEQA pursuant to the Public Utilities Commission (PUC) rules, in particular the new General Order 131-d. This Plan is intended to cover typical expansions of the system needed to serve new load, insure reliability, modernize older less efficient facilities, underground existing overhead lines, and to comply with new safety, air, and water quality standards, as well as other retrofits imposed by new government regulations. Those aforementioned activities that would normally be addressed by CEQA will still be subject to CEQA.

This Plan is not intended to exempt such projects from CEQA or NEPA, should the State or Federal Act pertain.

The Plan covers the following activities, as well as, estimates and defines the mitigation which may be required for the biological impacts of the installation, use, maintenance, and repair of the existing gas and electric system and typical expansions to that system. These activities are required to provide adequate, reliable, and safe service to existing customers and to meet the demands of new growth. The Plan does not cover extraordinary expansions to SDG&E's gas and electric system. The Plan also covers biological impacts (within the boundaries of the Plan area only), associated with new electric transmission lines including interconnections that do not project more that 30 miles outside of SDG&E's service territory (200 kV and less), Rainbow to Santee natural gas transmission pipeline, new gas transmission lines under 30" in diameter and less than 20 miles in length, new substations and regulator stations with habitat impacts under 20 acres, and new natural gas compressor stations with habitat impacts under 10 acres. Projects not covered by the Plan will be evaluated on a case-by-case basis, but will be evaluated by the standards set forth in this plan.

Since the future cannot be accurately predicted, the Plan allows for up to 400 acres of impacts in natural areas before requiring a Plan amendment. However, based on current technology, construction methods and standards, population forecasts, and local agency General Plans, the Plan anticipates only 124 acres of grading impacts in natural areas as a result of typical expansion and maintenance activities over the next 25 years (areas which are "natural" are not paved and do not contain ornamental landscaping or otherwise urbanized uses). Impacted areas may be home to one or more of the 110 species covered by this Plan. To mitigate these impacts, the Plan provides the following forms of mitigation:

- The most important mitigation measure is avoidance of impacts whenever possible. To accomplish this, new Operational Protocols for working in the field were developed. There are 61 protocols, all listed in Chapter 7 of the Plan. In addition, field crews attend a series of on-going classes on how to behave and operate construction and maintenance equipment in environmentally sensitive areas.

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- Certain fee-owned rights-of-way will be available for use as wildlife corridors in order to connect the region's conservation areas. SDG&E will also allow the use of certain rights-of-way held in easements for such corridors with the consent of the underlying land owner.

- Mitigation Credits of approximately 240 acres will be established upon commencement of the Subregional Plan. The credits will be debited to mitigate for actual impacts as projects are realized. The wildlife agencies will determine the extent and quality of any impact. If needed, the Mitigation Credits will be replenished by additional land conveyance.

- Restoration and enhancement are also available as mitigation measures, sometimes instead of debits to the Mitigation Credits, and other times in addition to such debits. Restoration will be used in some cases regardless of other forms of mitigation.

1.4.4 Term of Plan

The Plan covers a term of 25 years with options for renewal. Involved parties agreed that 25 years should be the maximum term because of possible major changes in technology, development patterns, and projections and legislation affecting land use and the environment. After 25 years, the Plan will be reevaluated, and, if appropriate, extended. The Mitigation Credits will be replenished as needed.

The program anticipates approximately 124 acres of Covered Species habitat will be temporarily or permanently impacted under this program. A maximum of 400 acres of Covered Species habitat could be temporarily or permanently impacted under the 10(a) permit for this program.

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2 Proposed Actions

2.1 Maintenance and Construction Activities

SDG&E constructs new utility infrastructure on an ongoing basis to maintain uniform, adequate, safe, and reliable electric and gas service. SDG&E also conducts maintenance and repair activities on existing Facilities. Typical construction, maintenance and repair activities for each type of Facility are described in this section. Operational Protocols to be used by SDG&E field personnel to avoid and minimize the potential impacts of installation, maintenance and repairs for each type of facility are contained in Section 7.1[2]

2.1.1 Overhead Facilities

Overhead Facilities are utilized in the transmission and distribution of electricity. Generally, overhead conductors (wires) are supported by wood or steel poles, or by steel lattice towers.

2.1.1.1 New Overhead Facility Alignment

New overhead facilities will, to the extent possible, be designed to minimize habitat fragmentation and disruption of wildlife movement and breeding areas. This will be accomplished by avoiding siting of Facilities in habitat and by utilizing dead-end/spur roads rather than linking facilities tangentially, to the extent possible[3]. When

[2] Extensions of SDG&E gas and electric transmission and distribution facilities provided to serve a particular customer constitute a project of that customer and are not subject to this Subregional Plan, the Implementing Agreement, or the Permits.

[3] "to the extent possible" means without violating CPUC standards or jeopardizing the structural and operational integrity of the facility

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facilities must be sited in undisturbed or habitat areas, they will, to the extent possible, be sited in lower quality habitat (See Figure 4).

2.1.1.2 Placement of Structures

Steel lattice towers are installed using concrete foundations. Wood poles are installed using direct burial or concrete foundations. Maintenance will be performed and repairs may be required to restore structural integrity or inadequacies in a foundation or transmission structure caused by erosion or other occurrences.

2.1.1.3 Placement of Electrical Equipment on Structures

Towers and poles support a variety of electrical equipment including insulators and conductors. Insulators are attached directly to poles, or to arms mounted on the structures. The insulators are installed by workers who climb the structure or access the structure in bucket trucks. Once the insulators are installed, a helicopter is often used to install a small rope. The small rope is used to pull in a bigger rope or cable which is then used to pull in the conductor.

2.1.1.4 Insetting Poles

"Pole insetting" places poles in-line between existing structures. The new poles provide additional strength to support new or heavier conductors. The new poles are also used to achieve necessary wire clearances. Insetting is an effective method of fully utilizing existing electric line structures and alignments which often defers the need for new structures, lines and alignments.

2.1.1.5 Equipment Repair and Replacement

Poles or towers may support a variety of equipment such as conductors, insulators, switches, transformers, lightning arresters, line junctions, and other electrical equipment. This type of equipment may need to be added, repaired, or replaced in order to maintain uniform, adequate, safe, and reliable service. Due to damage, changes in conductor size, or the like, an existing transmission structure will be removed and replaced with a larger/stronger structure at the same or nearby location.

2.1.1.6 Pole Anchors and Stubs

Anchors, guy wires, and stubs are used to support poles. Generally one end of a guy wire attaches to the upper portion of a wood pole. The other end attaches to the top of a stub or to an anchor buried in the ground. These anchors

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can be in or out of alignment with the pole line. In order to maintain pole stability, new anchors or stubs, replacement anchors or stubs may be needed. Stubs can either be made of wood or steel and sometimes require concrete foundations.

2.1.1.7 Insulator Washing

In some areas prone to atmospheric moisture, condensation combines with dust on porcelain insulators can create an electrical discharge. This discharge, known as "arcing", poses a significant risk of service outages. This risk can be substantially reduced by periodic washing of the insulators. The process of washing insulators involves driving a water truck to within 60 feet of the facility. A high pressure hose is used to spray water at the insulator.

2.1.1.8 Tree Trimming

Tree trimming plays a critical role in maintaining reliable electrical power. Tree limb contact with electrical lines is a potential cause of power outages and is also a source of possible ignition and as such a potential fire hazard. Constant vigilance in tree trimming practices, regardless of habitat type, is necessary to maintain proper line clearances.

2.1.1.9 Use of Helicopters

Helicopters are used in the visual inspection of overhead facilities. Each electric transmission line is inspected several times a year via helicopter. Helicopters are also occasionally used to deliver equipment, position poles and towers, string lines and position aerial markers as required by Federal Aviation Administration regulations.

2.1.2 Underground Facilities

Underground Facilities are primarily utilized in the transmission and distribution of natural gas. Conduit containing electrical conductor may also be placed underground. New electric distribution lines are almost always placed underground in public streets.

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2.1.2.1 New Underground Facility Alignment

New underground facilities will be designed to minimize habitat fragmentation and disruption of wildlife movement and breeding areas by avoiding siting facilities in habitat and by utilizing dead-end/spur roads to the extent possible. When facilities must be sited in undisturbed areas, they will, to the extent possible, be sited in lower quality habitat.

2.1.2.2 Underground Facility Access

Underground Facilities are regularly inspected visually and mechanically for any conditions which can potentially impair their function. Inspections involve driving along the top of/or parallel to the underground Facility. Access roads from public streets are utilized to reach the underground alignment. Access road maintenance is therefore a key component in installing, maintaining and inspecting underground Facilities.

2.1.2.3 Protection of Underground Facilities in Waterways

Underground infrastructure may cross a variety of shallow waterways ranging from blue-line streams designated on United States Geological Service maps to agricultural irrigation ditches. When the integrity of the Facility is threatened due to scouring, measures to protect the Facility and to minimize future erosion must be taken. Typical maintenance activities utilized to protect the underground Facilities include grading, addition of fill material to repair erosion damage, repair of adjacent slopes with placement of rip-rap or concrete, compaction of soil, vegetation control of species with invasive root structures, and other activities as necessary. These measures may be accomplished by hand or by equipment or machinery. Vegetation is allowed to grow over the underground Facility where it will reduce erosion by wind and water, and stabilize the soil.

2.1.2.4 Trenching

Trenching is required in order to install, replace, reposition, or repair underground Facilities. The width of the trench is dependent on the depth of the underground Facility and the stability of the side slopes. Underground Facilities are typically buried 3' to 5' deep. Facilities which are buried over 5' deep require side slopes of 1:1 or the use of shoring.

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2.1.2.5 Line Markers

Underground infrastructure installed on private property or out of the public right-of-way is marked above the ground through a variety of methods, including "Transmission Line Markers" (paddle-shaped markers attached at eye level to steel posts). In addition to marking the location of the underground facilities, the markers contain safety warning messages for digging contractors and the general public. Underground alignment occasionally runs perpendicular to a waterway or other terrain which prevents walking or driving along the alignment for inspection purposes. In these instances, a line-of-site free from vegetation from marker to marker must be maintained for visual inspections at a distance.

2.1.2.6 Use of Helicopters and/or Fixed Wing Aircraft for Visual Inspection

Gas transmission lines are inspected by ground patrol or from the air.

2.1.3 Other Ground Disturbance

Many types of ground disturbance are necessary in order to install, protect, maintain and repair Facilities. These types of disturbances generally occur in, but are not limited to, the utility rights-of-way and existing access roads.

2.1.3.1 Access Roads

Access roads comprise part of SDG&E's Facilities. Cost-effective and efficient installation, maintenance, and repair of its Facilities depend upon the availability of adequate access roads. Most gas and electric transmission facilities, and some distribution facilities, require access roads. New access roads will, to the extent possible, be designed to minimize habitat fragmentation and disruption of wildlife movement and breeding areas through the utilization of dead-end/spur roads rather than linking facilities tangentially. When new access roads must be sited in undisturbed areas, they will, to the extent possible, be sited in lower quality habitat (See Figure 5).

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2.1.3.2 Access Roads Crossing Waterways

Access roads may cross a variety of shallow water ways ranging from blue-line streams designated on United States Geological Service maps to agricultural irrigation ditches. Culverts may be added when utilization of an unculverted access road would alter the natural flow of a waterway. When the integrity of the access road is threatened, the culverts will be kept clear of vegetation, sediment, and debris to protect the access road. Sediment deposited in the area will be removed by hand or through the use of earth moving equipment. Other construction and activities include bank stabilization and repair of subsidence damage. These activities may be accomplished through the placement of rip-rap and through the use of earth moving equipment within the access road area.

NOTE: A Streambed Alteration Agreement is still required from CDF&G, however, no additional biological mitigation other than what is defined by this Plan shall be required for Covered Species. Refer to Implementing Agreement and clearance by ACOE/404 permit.

2.1.3.3 Slopes

Cut and fill slopes are constructed to create pads/foundations for utility structures or access roads. Slopes may require erosion repair.

2.1.3.4 Staging & Other Work Areas

Staging areas are for the temporary storage of large construction equipment and materials used in construction, maintenance, and repair activities. They can also serve as equipment turn-around areas, wire pulling sites, equipment parking areas, component assembly areas, equipment laydown areas, equipment and material storage sites, and temporary soil stockpile sites.

2.1.3.5 Geotechnical Remediation

Geotechnical remediation is necessary when geotechnical failure which may threaten the integrity of a Facility such as an electrical structure or a pipeline is imminent or has occurred.

2.1.3.6 Geotechnical Testing

Geotechnical tests are conducted to determine soil stability, depth of water table, engineering design values, and for the presence of hazardous waste. Testing may involve sample drilling, monitoring wells, excavation pits, or trenches.

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Access roads are required for this equipment over existing or potential project sites.

2.1.3.7 Pest Control

Pest control at electric and gas facilities is necessary to ensure system integrity. Facilities requiring pest control are electric substations, gas regulator stations, gas valve boxes, and utility equipment yards (pest control is not necessary within electric transmission rights-of-way). Non-native rats, mice, and other rodents have been known to cause electrical shorts within substation transformers, eat through gas metering equipment, and eliminate the effectiveness of gas valve boxes. Fortunately, SDG&E facilities are not normally attractive to these pests. Therefore, a limited program of pest control is able to keep the rodent population down. Pest control is more common to facilities located adjacent to urbanized areas where food is more plentiful. When necessary, pest control measures will be used in accordance with the written recommendation of a licensed, registered Pest Control Advisor. Pesticides will only be applied by a licensed applicator in accordance with label precautions and applicable law in a manner that does not harm native plants or animals.

2.1.3.8 Fire Control Areas

A clearing of 10 feet in any direction, measured horizontally, from the outer circumference of any pole or tower is needed for construction and is required by law to be maintained for fire protection after construction. This clearing forms an imaginary cylindrical space surrounding each pole or tower. At ground level, all flammable materials that will propagate fire are removed. Within such 10' radius and to height of to 8' from the ground, dead or dying trees or foliage, or the dead, diseased, or dying limbs or foliage are removed. Where such trimming results in the removal of more than 50% of any such tree or foliage to meet fire safety requirements, such tree or foliage is entirely removed. These fire control measures can aid in the prevention of fire caused by arcing and can protect the Facilities from failure due to a fire in a surrounding area. Areas cleared of vegetation are also required around gas line valve complexes and cathodic test stations for fire protection.

2.1.3.9 Vegetation Control

Vegetation must be controlled on access roads, road shoulders, drainage structures, around transformers,

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buildings, fuel tanks, switch and transformer yards, substations, regulator stations, and other Facilities. Vegetation is controlled to facilitate the construction and use of roads, to allow inspection and maintenance of infrastructure and Facilities, to expose hazards such as ruts to drivers, eliminate noxious weeds, prevent fires, and to provide safe working areas.

2.1.3.9.1 ***Mechanical Removal***

The simplest method of removing vegetation is by hand, such as the removal of isolated large shrubs or trees growing in areas where the roots could damage Facilities or where vegetation size restricts visual inspection. Raking is a means of removal usually used only to gather debris in preparation for disposal. Mowing will be used to control vegetation where low vegetation is desirable for erosion control. Clearing an area of vegetation by grading will also be used where no other means are appropriate.

2.1.3.9.2 ***Herbicide Spraying***

Herbicide spraying, although not commonly employed by SDG&E, may be used around buildings and where bare ground is required for fire control. Herbicide spraying will not be conducted where it will damage known populations of Covered Species of plants. The typical regimen for herbicide use includes the application of pre-emergent herbicides during the fall and winter and spot application of contact herbicides during the growing season. All herbicides will be applied by a registered applicator in accordance with label precautions and applicable law.

2.1.4 Substations and Regulator Stations

Electric Substations connect the electrical transmission system to the electric distribution system, and reduce the electrical voltage to the distribution system in order to maintain safe reliable electric service. Substations are designed and operated to meet the safety standards required in the CPUC General Order 131-D for electrical systems. Regulator stations connect the natural gas transmission system to the natural gas distribution system, and regulate the

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supply of gas to that distribution system in order to maintain safe, reliable natural gas service. Regulator stations are designed and operated to meet the safety standards required in the CPUC General Order 112-D for natural gas systems. This Plan mitigates up to 20 acres of habitat impacts associated with new substations and regulator stations.

2.1.4.1 Substation and Regulator Siting

To the extent possible, new substations and regulator stations will be sited to avoid natural areas in order to minimize habitat fragmentation and disruption of wildlife movement and breeding areas. When natural areas must be disturbed, facilities will, to the extent possible, be sited in lowest quality habitat. When facilities must be sited in a preserve area they will, to the extent possible, be sited at the outer boundary of the preserve rather than in the center (See Figure 6).

2.1.4.2 Staging and Other Work Areas

The disturbed areas within the property line of a substation or regulator station may be used as a staging area for the temporary storage of large construction equipment used in construction and maintenance activities. This property may also serve as equipment turn-around areas, wire pulling sites, equipment parking, assembly, and storage sites. Staging areas are used for equipment lay-down areas and pads for equipment positioning during construction. This utilization is intended to be temporary.

2.1.4.3 Fire Control Areas

Brush management around substations and regulator stations consisting of a 30'-wide fire break free from natural vegetation is desirable. Fire-control clearances are maintained on a yearly basis.

2.1.4.4 Geotechnical Failure Protection and Remediation

Geotechnical remediation is necessary when geotechnical failure is eminent or has occurred, and threatens the integrity of a Facility such as a substation or a regulator station. Preventative maintenance includes slope reconstruction and the repair or addition of drainage structures and retaining walls. Access is needed to various sites proposed for electrical substations and gas regulator stations for the purpose of obtaining engineering design information on the soils.

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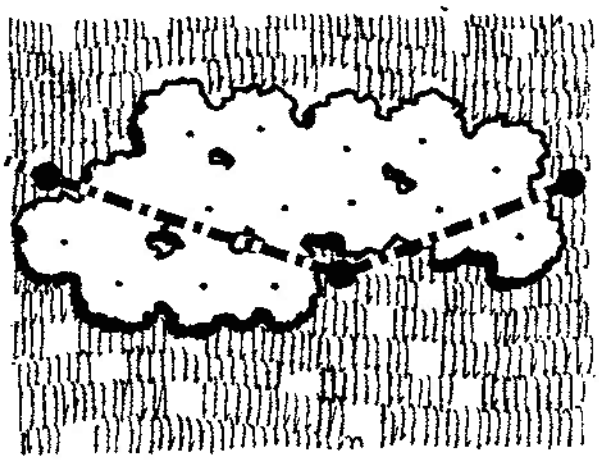

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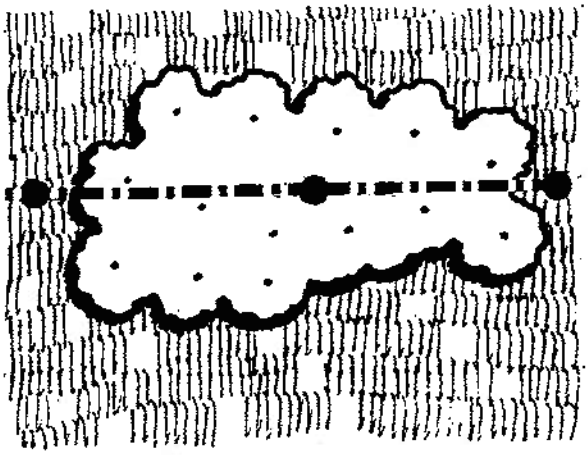

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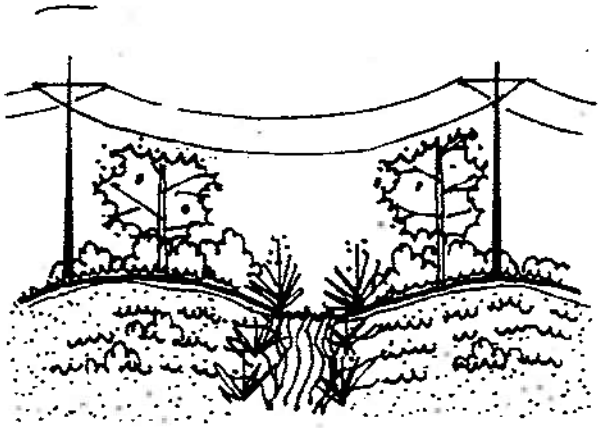
PLACEMENT OF OVERHEAD POLES SHOULD AVOID HABITAT AREAS



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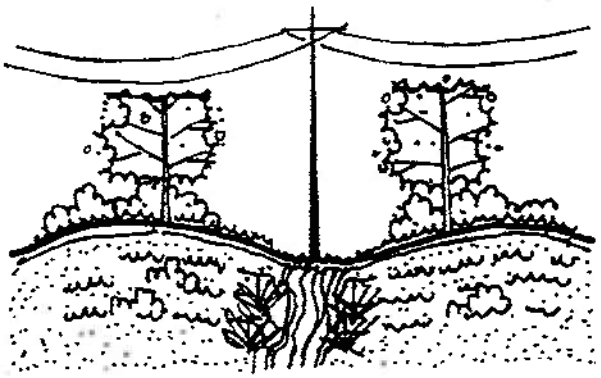

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OVERHEAD POLES SHOULD NOT BE PLACED IN RIVERS, STREAMS, OR CREEKS

FIGURE 4

Operational Protocol Diagrams

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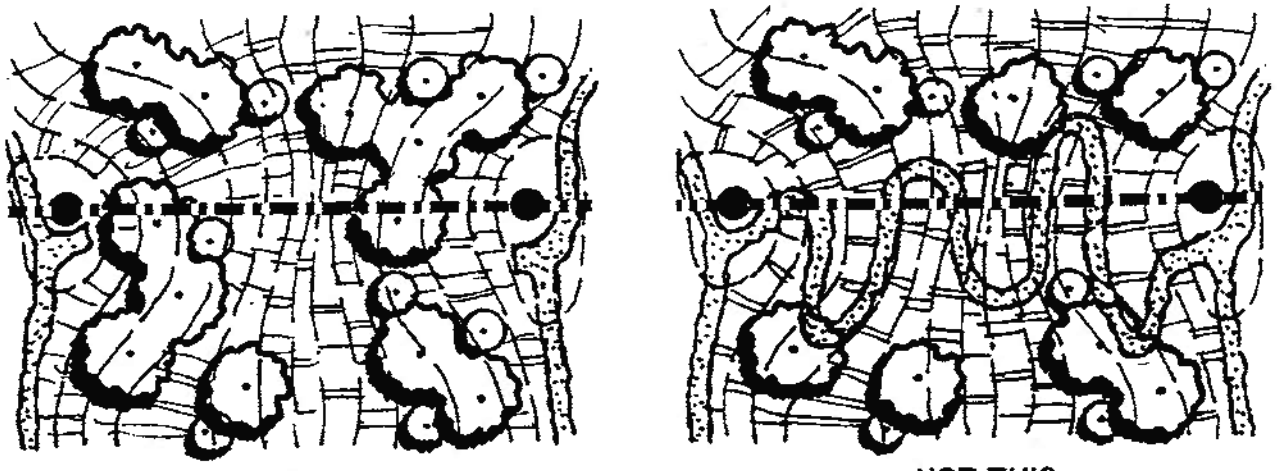

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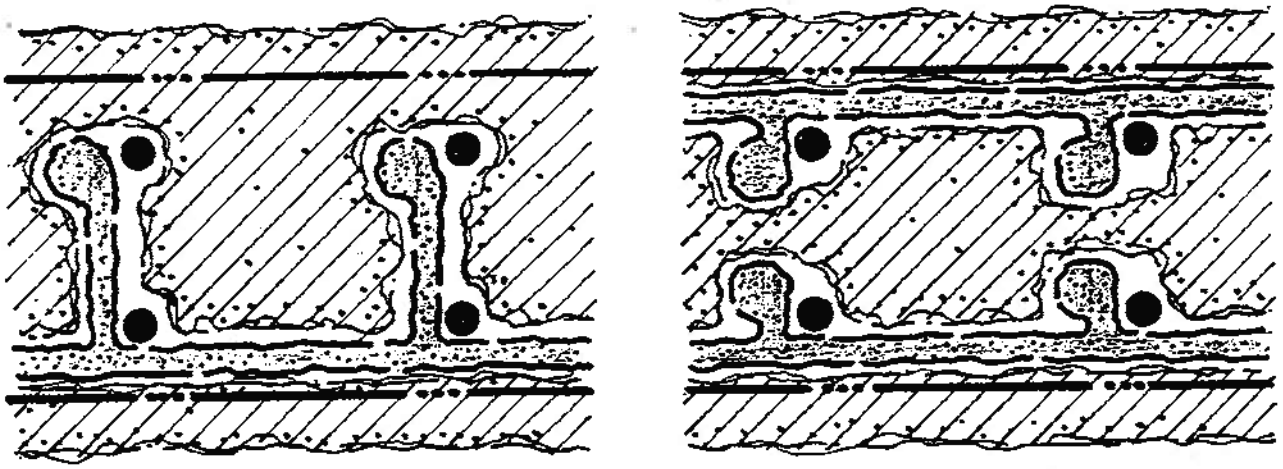
NEW ACCESS ROADS SHOULD AVOID SENSITIVE AND CANYON AREAS



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STUBS FROM EXISTING ACCESS ROADS SHOULD BE USED TO REACH NEW LINES

FIGURE 5

Operational Protocol Diagrams

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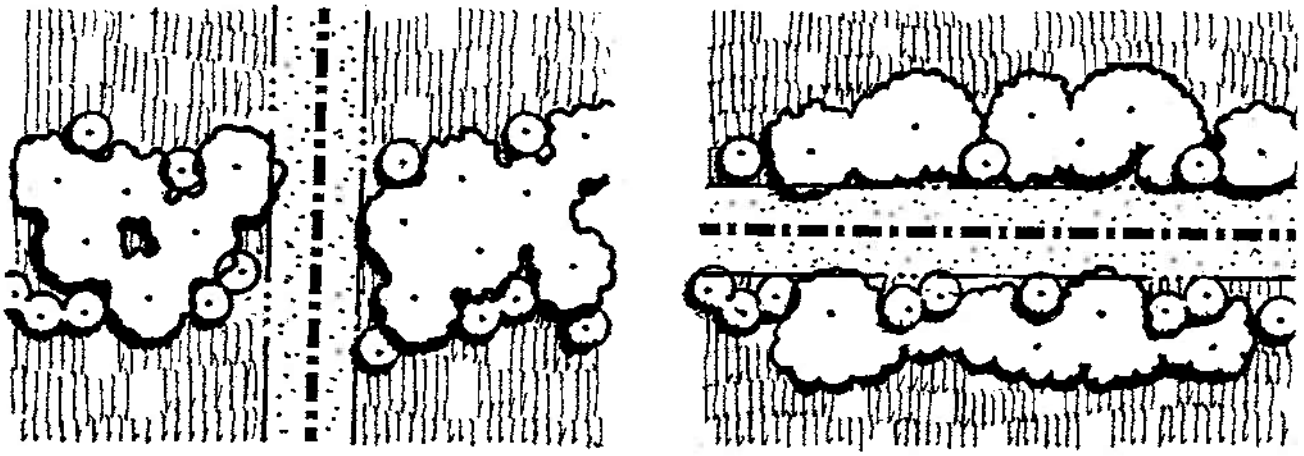

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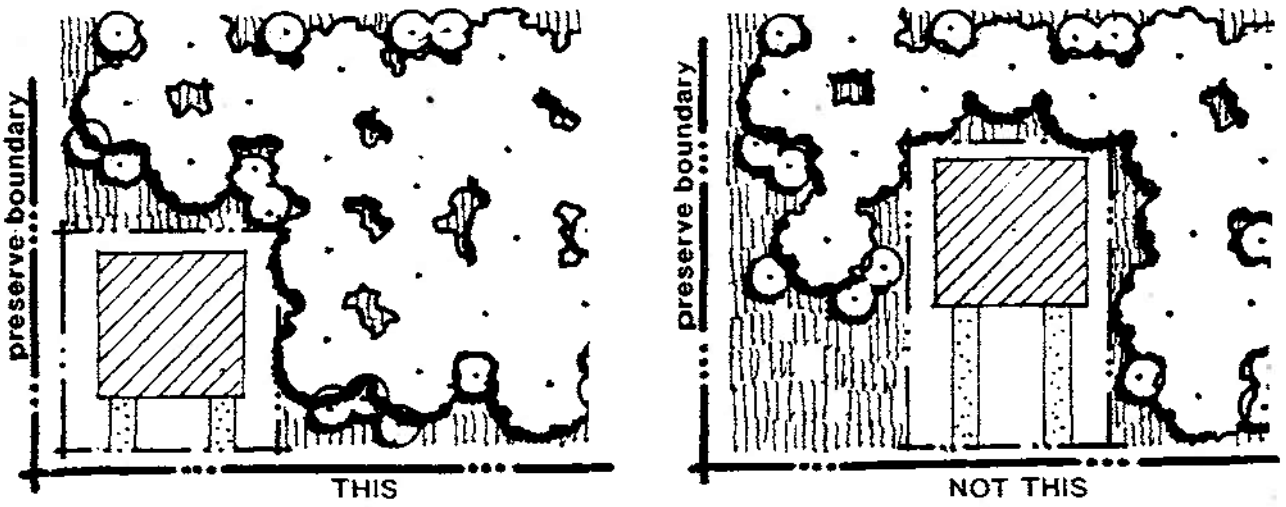
UTILITY LINES SHOULD MAKE PERPENDICULAR CROSSINGS THROUGH HABITAT AREAS



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SUBSTATIONS SHOULD BE SITED AT THE EDGES OF HABITAT PRESERVES

FIGURE

Operational Protocol Diagrams **6**

2.2 Emergencies

As a result of natural disaster, stochastic factors or vandalism, emergency repairs to Facilities may be warranted. Emergency repairs may also be required to prevent the occurrence of a Facility failure. Conditions in this category are those that potentially or immediately threaten the integrity of the SDG&E system including: broken/leaking pipes, downed lines/poles, slumps, slides, surface fault ruptures, erosion, major subsidence, or other natural disaster. Emergency repairs will be taken immediately as required. As a result, in considering potential impact to Covered Species or their habitat, adjustments for time of day or seasonal constraints may not be possible in the interest of system integrity and public health and safety.

Emergency work will be performed by SDG&E crews and/or contract crews under the direction of SDG&E and in accordance with the Operational Protocols and mitigation contained in Section 7.

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3 Biology

This section describes the biological information used to assess potential impacts of this Subregional Plan. It identifies the habitats that are the subject of the Subregional Plan and provides a description of potential impacts to Covered Species or their habitat caused by Activities.

The biological data utilized in the development of the Subregional Plan are derived from a variety of sources, including a number of conservation programs being prepared by local governments in Southern California. The sources of SDG&E's biological data and information are set forth in Section 3.1.

Table 3.1 lists the species and habitats for which this Subregional Plan is intended to provide protective and conservation measures over the term of the Implementing Agreement.

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3.1 Data Base References

The data bases for the regional conservation programs covering all of San Diego County and parts of Riverside and Orange Counties provide the biological basis for this Subregional Plan. Vegetation and habitat evaluation maps were used to provide the basis for decision-making on potential preserve boundaries. The three habitat conservation planning areas in San Diego are shown on Figure 7.

For the purposes of this Subregional Plan, the term Covered Species is as defined in the Implementing Agreement. Covered Species which are not listed are included because in most cases they will benefit from the habitat conservation actions to protect Listed Species. Furthermore, if any of the unlisted species are listed in the future, they will be protected as a function of the Implementing Agreement associated with the Subregional Plan.

Covered Species are listed in Table 3.1 Figures 3.1a - 3.1i follow Table 3.1 and indicate the approximate locations of selected sensitive species near SDG&E rights-of-way. These figures are to provide a rough indication of potential areas of impact for workers conducting preactivity surveys consistent with the Operational Protocols (see also § 7.1). These maps will be periodically revised as the quality of data improves.

3.1.1 Multiple Species Conservation Program (MSCP)

The biological data base and information which comprise the scientific basis for the City of San Diego's Multiple Species Conservation Program (MSCP) were developed over six years, beginning in 1989. It will be

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updated periodically as the research and monitoring programs which accompany the implementation of the MSCP are carried out. The MSCP covers about 581,000 acres in southwestern San Diego County. The MSCP biological data base was developed by Ogden Environmental in cooperation with the USFWS, CDFG, local jurisdictions in the San Diego, and various consulting and academic biologists. It also relies in part on the California Natural Diversity Data Base and other records of survey. The Subregional Plan is based in part upon this data base. A map of the draft preserve plan area is attached as Figure 8a. The vegetation map is attached as Figure 8b.

3.1.2 Multiple Habitat Conservation Program (MHCP)

This data base was developed under a similar process to the MSCP data base. The study area covers approximately 658,000 acres in the northwestern portion of San Diego County. The vegetation map is attached as Figure 8c.

3.1.3 San Diego County Multi-Habitat Conservation and Open Space Plan (MHCOS)

This data base remains under development, though basic biological information has been gathered on habitat types and other baseline information. This data base is being developed under a similar process to the MSCP data base. It covers the central mountainous section of San Diego County west of the desert. The vegetation map is attached as Figure 8d.

3.1.4 South Orange County NCCP Subregional Data Base

This data base was also developed under a similar process as the MSCP data base. It covers the southern section of Orange County, largely comprising the Rancho Santa Margarita Company property and adjacent conservation lands, and adjoining the Camp Pendleton Marine Corps Base west of Riverside County. A map of the draft plan area is attached as Figure 9.

3.1.5 Riverside County Habitat Conservation Plan (RCHCP)

This database was developed to address the recovery plan for the Stephen's Kangaroo Rat. A small portion of SDG&E's system is in this Plan area. The RCHCP intends to expand its scope into a multi-species program. A map of the draft plan area is attached as Figure 10.

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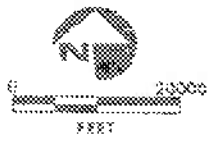
SDGE

Subregional Natural Community Conservation Program

FIGURE 7

This draft map depicts areas within which habitat preserves may be created, and is intended for estimating habitat protection and costs for the draft Multiple Species Conservation Program (MSCP). The biological data have varying sources and accuracy; site-specific data shall update the data base, and may modify this draft map. It is not intended that all lands within the lines be preserved (some development will be allowed), and some areas outside the lines may ultimately be included in the preserve. The MSCP Plan must be approved by the Councils and Board of Supervisors for the cities and county before this information is used to regulate land use.

DRAFT



MSCP Study Area Boundary
Freeways
Major Streams
Lakes and Lagoons

Coastal Sage Scrub
Chaparral
Coastal Sage Scrub Chaparral
Grassland
Riparian/Wetlands
Oak Woodland
Coniferous Forest
Beach/Foredunes
Eucalyptus Woodland
Disturbed Habitat
Shallow Bay
Developed
Agriculture
Public & Military Lands

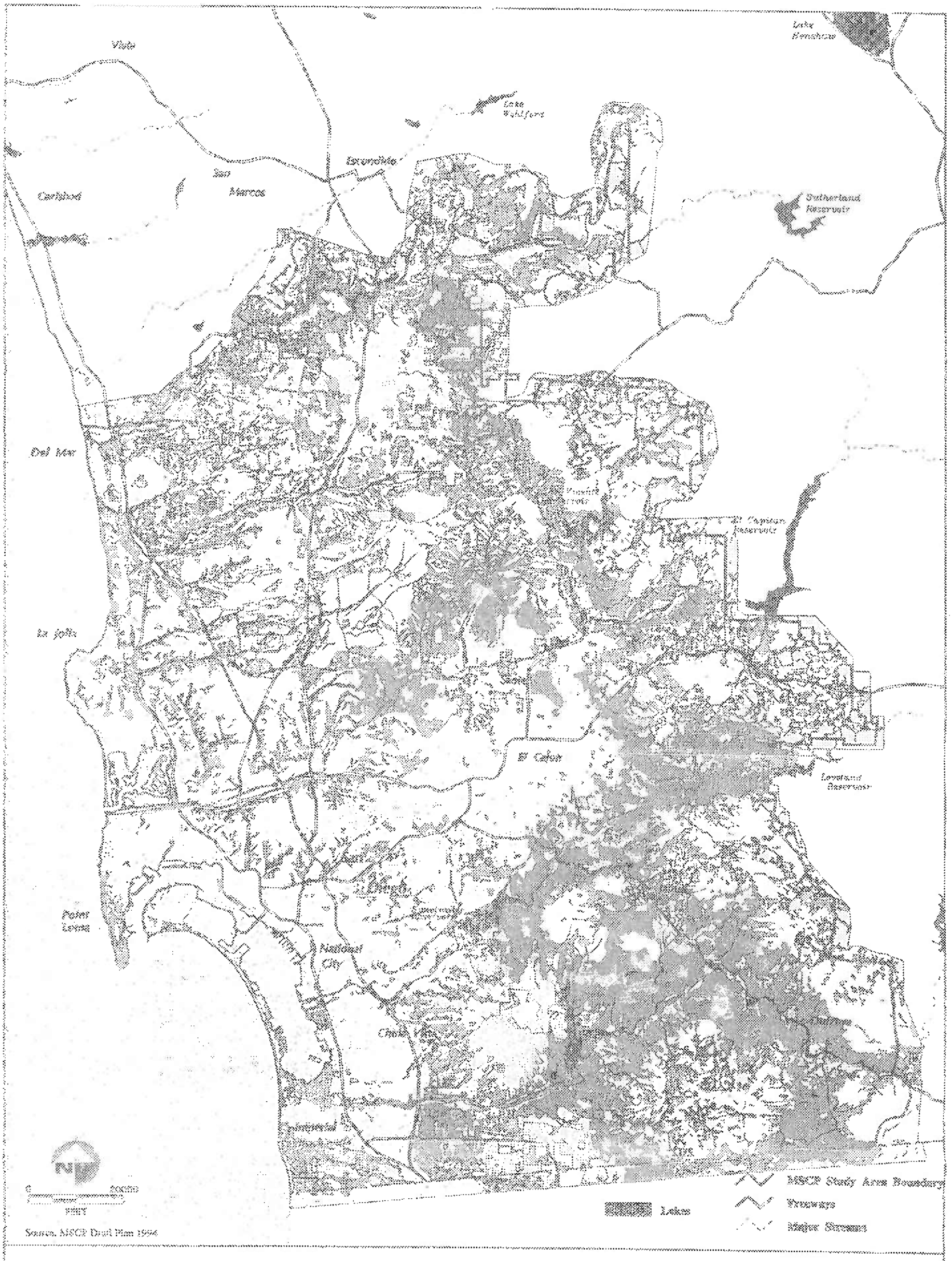
OGDEN

Multiple Habitat Planning Area (MHPA) For The MSCP

FIGURE 8a

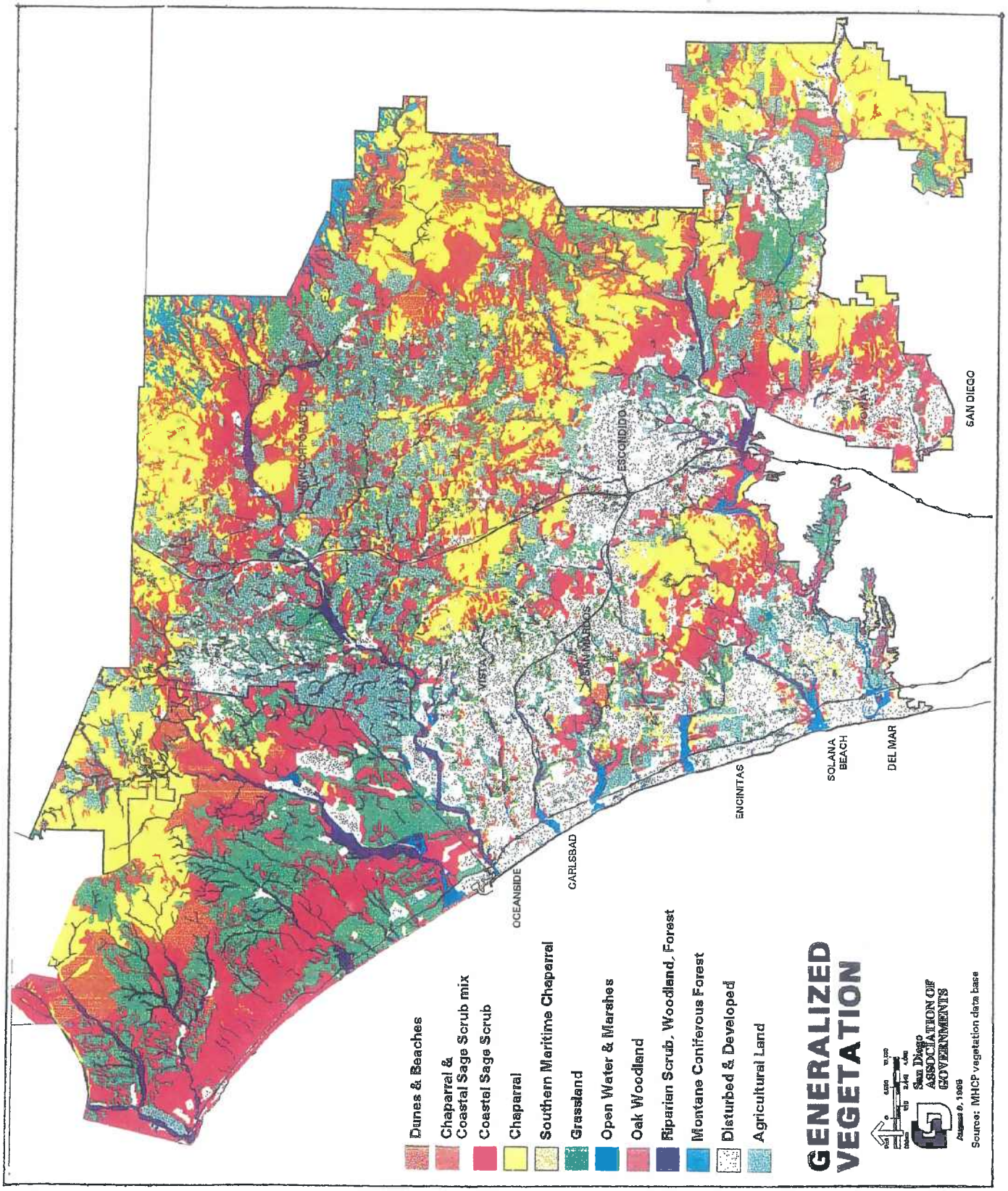
SDGE

Subregional Natural Community Conservation Plan



Vegetation Communities for MSCP Study Area

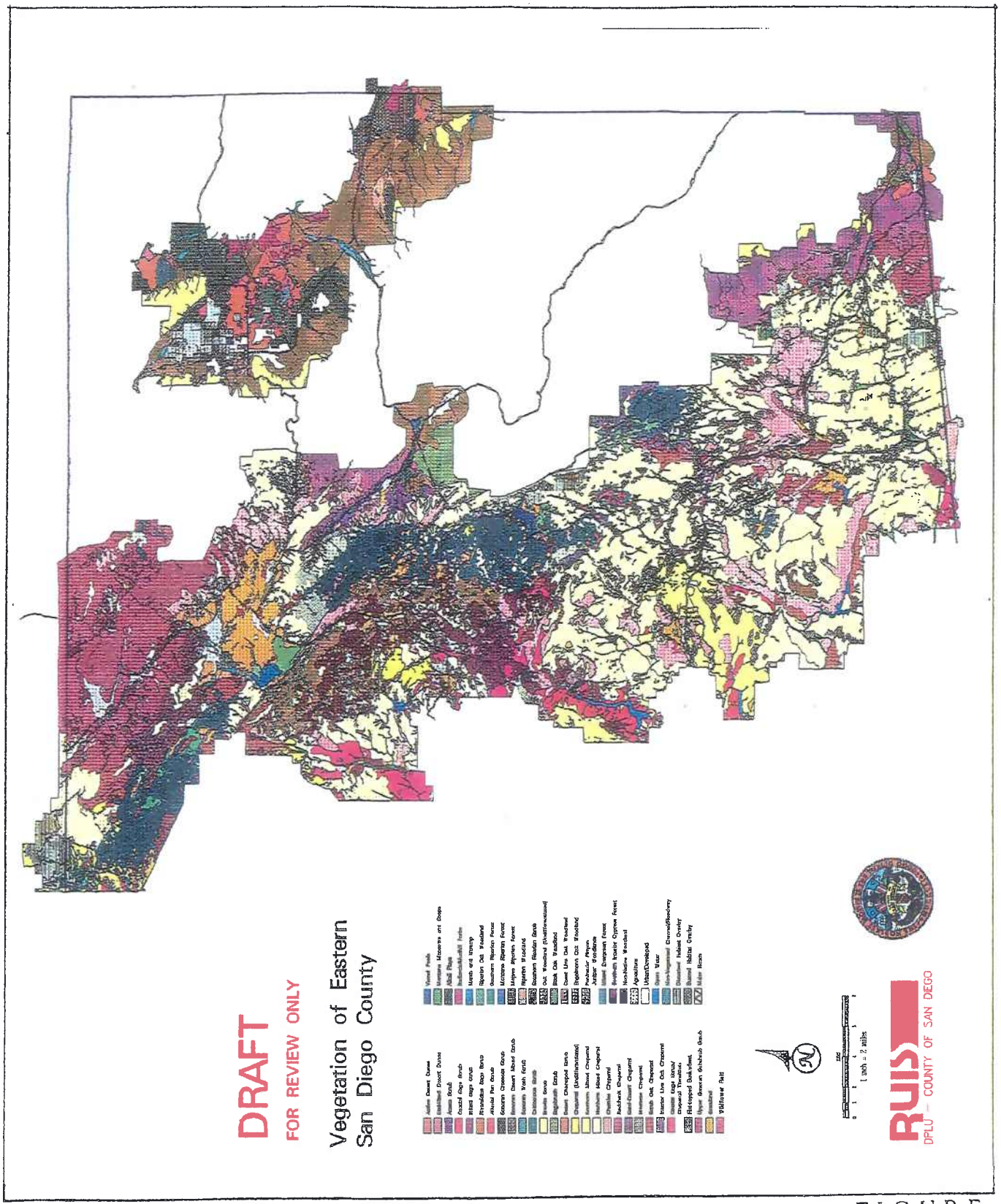
FIGURE 8b



FIGURE

8c

Multiple Habitat Conservation Program MHCP

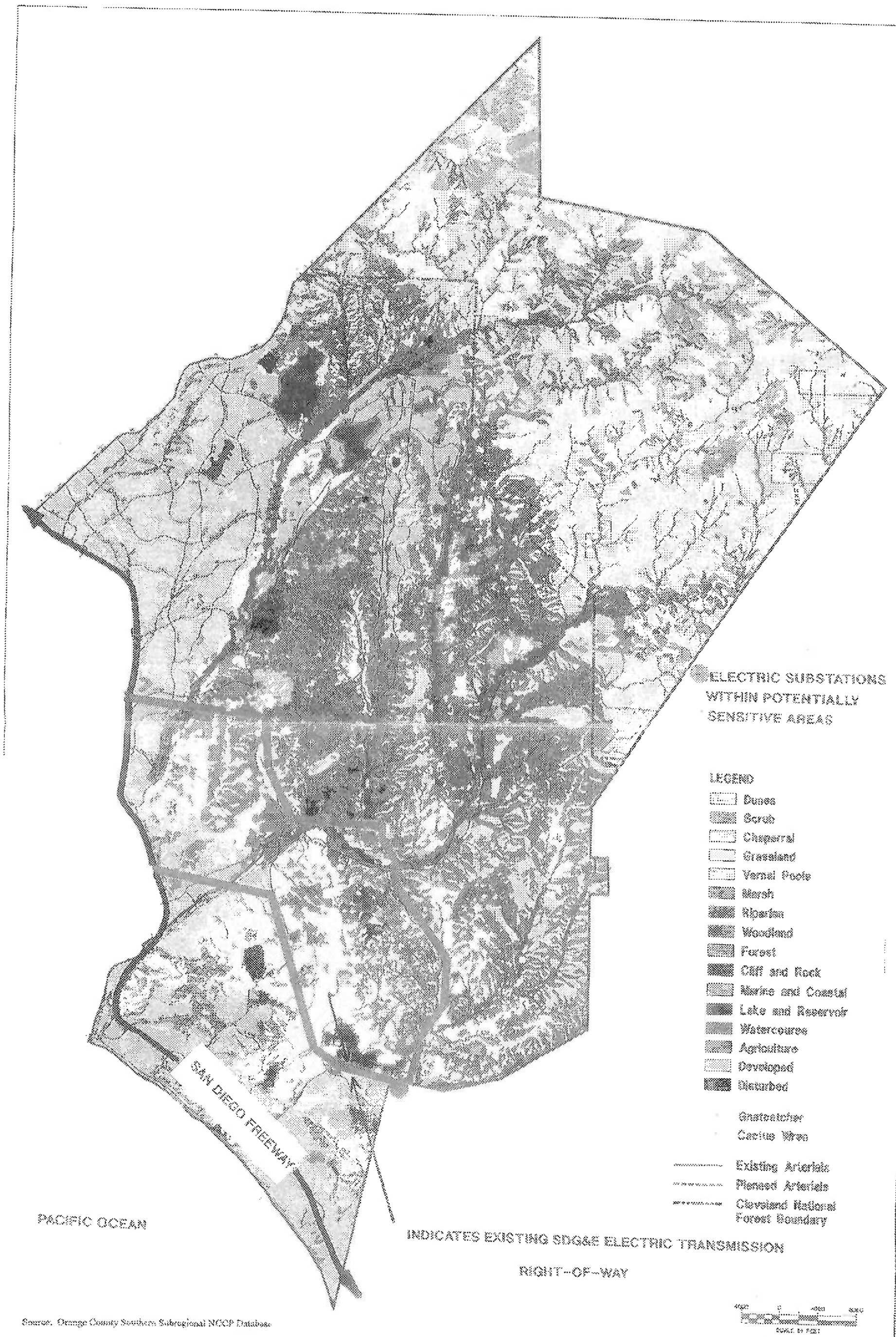


FIGURE

8d

Multiple Habitat Conservation and Open Space Program MHCOS

SDGE Subregional Natural Community Conservation Plan



Source: Orange County Southern Subregional NCCP Database

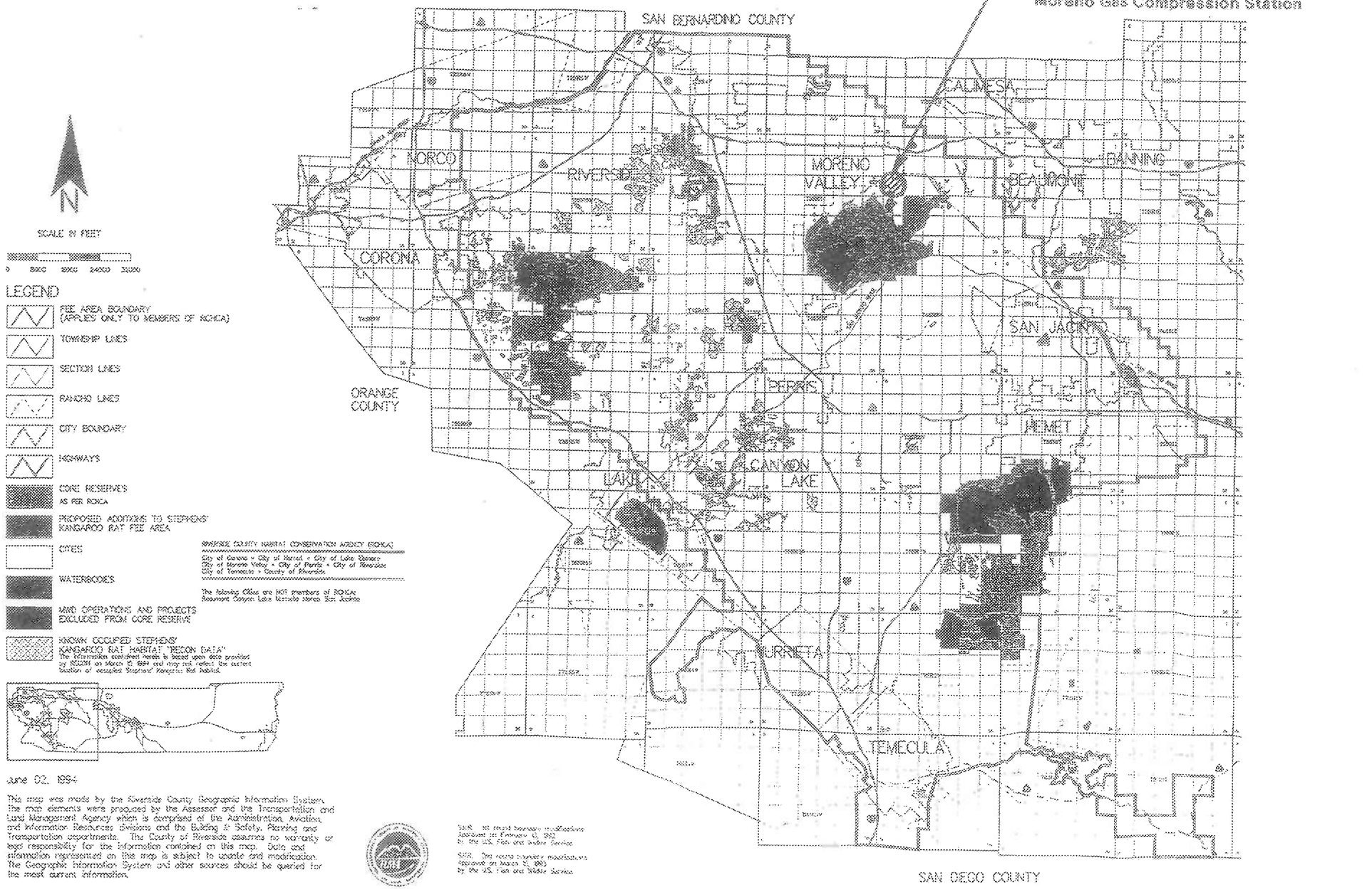
Orange County Southern Subregion NCCP

FIGURE
9

SDGE

Subregional Natural Community Conservation Plan

RIVERSIDE COUNTY
HABITAT CONSERVATION AGENCY
FEE AREA – CORE RESERVES



June 02, 1994

This map was made by the Riverside County Geographic Information System. The map elements were produced by the Assessor and the Transportation and Land Management Agency which is comprised of the Administration, Aviation, and Information Resources divisions and the Building & Safety, Planning and Transportation departments. The County of Riverside assumes no warranty or legal responsibility for the information contained on this map. Data and information represented on this map is subject to update and modification. The Geographic Information System and other sources should be queried for the most current information.

SDGE: 1st round boundary modifications Approved on February 11, 1992 by the U.S. Fish and Wildlife Service.

SDGE: 2nd round boundary modifications Approved on March 15, 1993 by the U.S. Fish and Wildlife Service.

FIGURE 10

Riverside County Habitat Conservation Plan

Subregional Natural Community Conservation Plan

SDGE

TYPES OF HABITAT WITHIN SUBREGIONAL PLAN AREA

- *Southern Foredunes*
- *Southern Coastal Bluff Scrub*
- *Maritime Succulent Scrub*
- *Coastal Sage Scrub*
- *Alluvial Fan Scrub*
- *Chaparral*
- *Southern Maritime Chaparral*
- *Coastal Sage/Chaparral Mix*
- *Grassland*
- *Meadow/Seep*
- *Southern Coastal Salt Marsh*
- *Alkali Marsh*
- *Freshwater Marsh*
- *Coast Live Oak Riparian Forest*
- *Riparian Forest*
- *Riparian Woodland*
- *Riparian Scrub*
- *Open Oak Woodland*
- *Open Engelmann Oak Woodland*
- *Dense Engelmann Oak Woodland*
- *Coast Live Oak Forest*
- *Black Oak Forest*
- *Torrey Pine Forest*
- *Mountain Conifer Forest*
- *Coulter Pine Forest*
- *Big Cone Spruce*
- *Jeffrey Pine*
- *Eucalyptus Forest*

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- *Tecate Cypress Forest*
- *Inland Water*
- *Shallow Bays*
- *Disturbed Wetlands*
- *Non-Vegetated Floodchannel*
- *Beach-Saltpan*
- *Disturbed Habitat*
- *Agricultural*

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MITIGATION

I. Scrub & Chaparral Species

See Protocols (Section 7.1) and Habitat Enhancement Measures (Section 7.2)

II. Grassland Species

Native grasslands: Over gas lines, same as vernal pool, except remove bunch grasses and replant, otherwise span with distribution and transmission lines.

Non-native grasslands: See Protocols (Section 7.1) and Habitat Enhancement Measures (Section 7.2).

III. Beach, Marsh, and Wetland Species

Construction in marsh areas, soft sand, or open water in most cases will be accomplished through the use of helicopters for the delivery of materials, poles, personnel, and platforms. Roads should be avoided to the extent feasible.

IV. Narrow Endemic Species

Take of certain narrow endemic Covered Species is to be avoided. Take authorizations for these species will be limited to emergencies and unavoidable impacts from repairs to existing facilities. The first priority is avoidance, if impact is unavoidable, then state-of-the-art conservation practices will be utilized to determine best mitigation method consistent with Operational Protocols. For repairs to existing facilities which could result in an impact, a biologist would be called in. Take of the "species to be avoided" may not occur for non-emergency repair work without first conferring with the USFWS and CDFG. For new projects, kill or injury of such animal species or destruction of such plants or their supporting habitat would not be covered by the Plan and Implementing Agreement.

V. Riparian Species

See Protocols (Section 7.1, especially 7.1.7)

VI. Forest Species

See Protocols, same as Riparian (Section 7.1, especially 7.1.7)

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VII. Open Water Species

When working in open water: Typically, a wooden platform is fabricated on dry land then delivered by helicopter. The platform, in two pieces, has a 1/2 circle for the pole cut into the edge of each. The platform has "feet" to keep it above the water. The platform would have other holes to prevent suction during removal. Personnel, materials, tools, and replacement poles would also be delivered to the platform by air.

Temporary disturbances in the work area would be limited to a 10' radius around the pole hole.

VIII. Raptor Species

SDG&E will coordinate with wildlife agencies when new or expanded facilities are planned in significant bird movement corridors. The following methods will be considered for implementation on a case by case basis for use in the protection of raptors from electrocution associated with perching/nesting activities on distribution and transmission structures: Pole mounted bird perches, inverted "V" raptor guards, Bird-be-Gone™, saw-toothed metal bird guards, insulated jumpers, or others. These methods will be employed on select structures in areas known to be inhabited by sensitive raptor species when the likelihood of electrocution is high or has been historically documented. Where nests interfere with safe operation of transmission system, avoid removal in months January - June.

Wood Poles

Pole Mounted Bird Perch

- Construction from 2" x 6" treated lumber, attached to the top of wood pole carrying voltages from 12kV - 138kV (PacifiCorp EV 101)

Inverted "V" Raptor Guard

- Constructed of poly pipe and attached to cross arm between insulators with galvanized steel clamps

Wood or Steel Poles

Bird-be-Gone

- 4' long rows of plastic spikes attached to cross arms

Sticky Solution

- Sticky solution on cross arms or wires, birds don't like the feel

Steel Lattice Towers

Metal Bird Guard

- Saw-toothed bird guard, of 22-gauge sheet metal, attached to the cross arms of terminal, tangent, and angle towers, carrying voltages of 69kV and above

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IX. Vernal Pools

SDG&E will avoid vernal pools and their watersheds in the construction of new facilities, including roads. When pools are located above gas lines and repair work is necessary, work areas should be minimized and soil should be stockpiled for replacement after repairs. For new gas lines, avoid through routing changes. For access roads, stay within existing footprint, no new roads through vernal pool areas.

Under certain circumstances, SDG&E is prepared to consider rerouting an existing access road which passes through a vernal pool area as potential mitigation for the impacts of utility Activities on vernal pools that cannot be otherwise avoided pursuant to the Operational Protocols in the Plan, such as in an emergency. This rerouting would only be done if it was possible without compromising operational integrity and safety. The mitigation value of the rerouted road would be at 1:1 level.

X. Stephens' Kangaroo Rat

Take of the Stephens' Kangaroo Rat (SKR) is only permitted for SDG&E in the Multiple Habitat Conservation Program (MHCP) planning area in northern San Diego County for operation and maintenance activities until the MHCP is approved. After that time, and provided that SKR is conserved within MHCP, Take for new construction Activities will be permitted under the terms of this Plan. This condition only applies to the SKR populations in San Diego County; Riverside County has an approved Take process and mitigation protocol. Furthermore, SDG&E's facilities in Riverside County already exist, and no new impacts are expected.

Note: Operational Protocols (Section 7.1) and Habitat Enhancement Measures (Section 7.2) are generally applicable to all of the habitat.

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TABLE 3.1 COVERED SPECIES LIST

#	SPECIES NAME & STATUS	HABITAT TYPES	RANGEWIDE AND LOCAL DISTRIBUTION OF SPECIES	DEGREE OF EXISTING PROTECTION	CONSERVATION PLANNING IMPLICATIONS	MITIGATION
	PLANTS					
1	San Diego thornmint (*Acanthomintha ilicifolia*) C1/PE/List 1B, R-E-D 2-3-2	Clay soils in chaparral, coastal sage scrub, valley and foothill grasslands, and vernal pools.	San Diego County and Baja California, Mexico. Known currently from approximately 30 populations that are typically small and endangered by urban pressures.	CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	I, IV, IX
2	Shaw's agave (*Agave shawii*) Regionally sensitive species/List 2, R-E-D 3-3-1	Coastal bluff scrub and coastal sage scrub.	San Diego County and Baja California, Mexico. Only three, small, disjunct populations occur naturally in the U.S. Has been introduced to other localities.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided unless deemed necessary for emergencies or repairs.	I, IV
3	San Diego ambrosia (*Ambrosia pumila*) Regionally sensitive species/List 1B, R-E-D 3-3-2	Chaparral, coastal sage scrub, valley and foothill grasslands, and vernal pools. Often in disturbed areas.	Riverside and San Diego counties and Baja California, Mexico. In San Diego County, currently known from 4 scattered populations.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	I, II, IV, IX
4	Aphanisma (*Aphanisma blitoides*) Regionally sensitive species/List 1B, R-E-D 2-2-2	Sandy areas in coastal bluff scrub and coastal sage scrub.	Central California coast to Baja California, Mexico. May be extirpated in San Diego County and severely declining throughout its mainland U.S. range.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts to San Diego County populations will be avoided unless deemed necessary for emergencies or repairs.	I, IV
5	Otay manzanita (*Arctostaphylos otayenis*) Regionally sensitive species/List 1B, R-E-D 3-2-3	Volcanic soils in chaparral and cismontane woodland.	Scattered populations occur on Otay, San Miguel, and Jamul, mountains in San Diego County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I, VII
6	Del Mar manzanita (*Arctostaphylos glandulosa* var. *crassifolia*) PE/List 1B, R-E-D 3-3-2	Southern maritime chaparral.	Infrequent in coastal San Diego County from Del Mar to Carlsbad.	FESA (assuming federal action associated with take), CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves populations and habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I
7	Coastal dunes milk-vetch (*Astragalus tener* var. *titi*) C1/PE/List 1B, R-E-D 3-3-3	Coastal bluff scrub and coastal dunes.	Historically occurred in San Diego, Monterey, and Los Angeles counties. Presumed extirpated in San Diego and Los Angeles counties.	CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided unless deemed necessary for emergencies or repairs.	III, IV
8	Encinitas baccharis (*Baccharis vanessae*) PE/CE/List 1B, R-E-D 2-3-3	Sandstone soils in chaparral.	San Diego County endemic. Restricted to approximately 13 known localities.	FESA (assuming federal action associated with take), CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided unless deemed necessary for emergencies or repairs.	I, IV
9	Nevin's barberry (*Berberis nevinii*) C1/PE/List 1B, R-E-D 3-3-3	Sandy or gravelly soils in chaparral, cismontane woodland, coastal sage scrub, and riparian scrub.	Los Angeles County south to Riverside, San Bernardino, and San Diego counties. Populations are relatively stable although few in number. No extant native populations are known in San Diego County.	CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	I, IV, VI
10	Thread-leaved brodiaea (*Brodiaea filifolia*) PT/CE/List 1B, R-E-D 3-3-3	Clay soils in coastal sage scrub, cismontane woodland, valley and foothill grasslands, and vernal pools.	Interior valley regions of Riverside and San Diego counties. Fifteen populations are known from San Diego County, 6 from Riverside County, 2 from San Bernardino County, and 1 each from Los Angeles and Orange counties.	FESA (assuming federal action associated with take), CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves populations and habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species. Vernal pool populations will be adequately conserved by the Plan because impacts to vernal pools will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	I, II, VI, IX

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TABLE 3.1 COVERED SPECIES LIST

#	SPECIES NAME & STATUS	HABITAT TYPES	RANGEWIDE AND LOCAL DISTRIBUTION OF SPECIES	DEGREE OF EXISTING PROTECTION	CONSERVATION PLANNING IMPLICATIONS	MITIGATION
	PLANTS					
11	Orcutt's brodiaea (*Brodiaea orcuttii*) Regionally sensitive species/List 1B, R-E-D 1-3-2	Clay soils in close-coned coniferous forests, chaparral, cismontane woodlands, meadows, valley and foothill grasslands, and vernal pools.	Riverside and San Bernardino counties to Baja California, Mexico. Found in numerous localities in San Diego County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species. Vernal pool populations will be adequately conserved by the Plan because impacts to vernal pools will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	I, VI, IX
12	Dense reed grass (*Calamogrostis koelerioides*) Regionally sensitive species	Chaparral.	Orange and San Diego counties. Known from approximately 25 localities in San Diego County and approximately 3 localities in Orange County.	Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitat. The Plan also preserves habitat to maximum extent practicable and preserves corridors connecting habitat thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitat that may include the species.	I
13	Dunn's mariposa lily (*Calochortus dunnii*) CR/List 1B, R-E-D 2-2-2	Gabbroic and metavolcanic soils in close-coned coniferous forests and chaparral.	Southern Peninsular Range of San Diego County and adjacent Baja, California, Mexico. Known from approximately 8 localities in San Diego County.	CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves populations and habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I, VI
14	Payson's jewelflower (*Caulanthus simulans*) Regionally sensitive species/List 4, R-E-D 1-2-3	Sandy, granitic soils in chaparral and coastal sage scrub.	Riverside and San Diego counties. Known from approximately 19 localities in San Diego County and 4 localities in Riverside County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I
15	Slender-pod jewelflower (*Caulanthus stenocarpus*) CR	Chaparral, especially on burns.	San Diego County to northern Baja California, Mexico. Widespread but sporadic distribution.	CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves populations and habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I
16	Lakeside ceanothus (*Ceanothus cyaneus*) Regionally sensitive species/List 1B, R-E-D 3-2-2	Acid igneous rockland in close-coned coniferous forests and chaparral.	Western San Diego County to Baja California, Mexico. Restricted to Crest and El Cajon Mountain region in San Diego County. Specimen collected from Baja California, Mexico may be a hybrid.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchenge and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I, VI
17	Wart-stemmed ceanothus (*Ceanothus verrucosus*) Regionally sensitive species/List 2, R-E-D 1-2-1	Chaparral.	San Diego County and Baja California, Mexico. Currently known from approximately 17 localities in San Diego County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitat. The Plan also preserves habitat to maximum extent practicable and preserves corridors connecting habitat thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitat that may include the species.	I
18	Orcutt's spineflower (*Chorizanthe orcuttiana*) PE/CE/List 1B, R-E-D 3-3-3	Chaparral, close-coned coniferous forests, and coastal sage scrub.	Endemic to San Diego County. Only one site known to be extant: Oak Crest Park in Encinitas.	FESA (assuming federal action associated with take), CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided unless deemed necessary for emergencies or repairs.	I, IV, VI

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TABLE 3.1 COVERED SPECIES LIST

#	SPECIES NAME & STATUS	HABITAT TYPES	RANGEWIDE AND LOCAL DISTRIBUTION OF SPECIES	DEGREE OF EXISTING PROTECTION	CONSERVATION PLANNING IMPLICATIONS	MITIGATION
	PLANTS					
19	Orange County Turkish rugging (*Chorizanthe staticoides* ssp. *chrysacantha*) Regionally sensitive species	Ocean bluffs, coastal sage scrub.	San Diego and Orange counties. Two known localities in San Diego County and 11 known in Orange County.	Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I
20	Salt marsh bird's-beak (*Cordylanthus maritimus* spp. *maritimus)* FE/CE/List 1B, R-E-D 2-2-2	Coastal dunes and coastal salt marshes.	San Luis Obispo County south to Baja California, Mexico. Restricted to 2 extant populations in San Diego County and possibly 2 in Orange County.	FESA (assuming federal action associated with take), CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	III, IV
21	Orcutt's bird's-beak (*Cordylanthus orcuttianus*) Regionally sensitive species/List 2, R-E-D 3-3-1	Coastal sage scrub.	Endemic to San Diego County and Baja California, Mexico. Restricted to a few localities in southwestern San Diego County. Otay River populations are only vigorous, extant U.S. populations.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitat. The Plan also preserves habitat to maximum extent practicable and preserves corridors connecting habitat thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitat that may include the species.	I
22	Tecate cypress (*Cupressus forbesii*) Regionally sensitive species/List 1B, R-E-D 3-2-2	Close-coned coniferous forests and chaparral.	Orange County, San Diego County, and Baja California, Mexico. Known from 6 localities in San Diego County and 6 localities in Orange County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	VI
23	Short-leaved dudleya (*Dudleya blochmaniae* ssp. *brevifolia*) PE/CE/List 1B, R-E-D 3-3-3	Torrey sandstone in chaparral and coastal sage scrub.	Between La Jolla and Del Mar in San Diego County. Known from approximately 6 but not more than 8 localities.	FESA (assuming federal action associated with take), CESA,NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided unless deemed necessary for emergencies or repairs.	I, IV
24	Many-stemmed dudleya (*Dudleya multicaulis*) Regionally sensitive species/List 1B, R-E-D 1-2-3	Often clay soils in chaparral, coastal sage scrub, and valley and foothill grasslands.	Los Angeles, Orange, Riverside, San Bernardino, and San Diego counties. Known only from Marine Corps Base Camp Pendleton in San Diego County, numerous localities in Orange County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I, II
25	Variegated dudleya (*Dudleya variegata*) Regionally sensitive species/List 1B, R-E-D 2-2-2	Chaparral, cismontane woodlands, coastal sage scrub, valley and foothill grasslands, and vernal pools.	Southern San Diego County and northwestern Baja California, Mexico. Known from approximately 60 localities in San Diego County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species. Vernal pool populations will be adequately conserved by the Plan because impacts to vernal pools will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	I, II, VI, IX
26	Sticky dudleya (*Dudleya viscida*) C1/List 1B, R-E-D 3-2-3	Rocky areas in coastal bluff scrub, chaparral, and coastal sage scrub.	San Diego, Orange, and Riverside counties. Known from 10 populations in San Diego County, 4 localities in Orange County, and 1 location in southwestern Riverside County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I

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TABLE 3.1 COVERED SPECIES LIST

#	SPECIES NAME & STATUS	HABITAT TYPES	RANGEWIDE AND LOCAL DISTRIBUTION OF SPECIES	DEGREE OF EXISTING PROTECTION	CONSERVATION PLANNING IMPLICATIONS	MITIGATION
	PLANTS					
27	Palmer's ericameria (*Ericameria palmeri* ssp. *palmeri*) Regionally sensitive species/List 2, R-E-D 2-2-1	Coastal sage scrub.	Southern San Diego County and Baja California, Mexico. Known from 10 populations in San Diego County.	Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided unless deemed necessary for emergencies or repairs.	I, IV
28	San Diego button-celery (*Eryngium aristulatum* var. *parishii*) FE/CE/List 1B, R-E-D 2-3-2	Coastal sage scrub, valley and foothill grasslands, and vernal pools.	San Diego and Riverside counties and Baja California, Mexico. Known from 65 localities in San Diego County; many of these are remnants of once larger populations.	FESA (assuming federal action associated with take), CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves populations and habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species. Vernal pool populations will be adequately conserved by the Plan because impacts to vernal pools will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	I, II, IX
29	Coast wallflower (*Erysimum ammophilum*) Regionally sensitive species/List 1B, R-E-D 2-2-3	Coastal dunes.	San Diego County, Santa Rosa Island, Santa Cruz and Monterey counties. Known from approximately 7 localities in San Diego County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided unless deemed necessary for emergencies or repairs.	III, IV
30	San Diego barrel cactus (*Ferocactus viridescens*) Regionally sensitive species/List 2, R-E-D 1-3-1	Chaparral, coastal sage scrub, maritime succulent scrub, and valley and foothill grasslands.	San Diego County and Baja California. Persists in numerous, fragmented populations in San Diego County. Its highest densities occur on Otay Mesa, particularly northeast of Brown Field and at the east end of Wruck Canyon.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I, II
31	Palmer's grapplinghook (*Harpagonella palmeri*) Regionally sensitive species/List 2, R-E-D 1-2-1	Clay soils in chaparral, coastal sage scrub, and valley and foothill grasslands.	Los Angeles, Orange, Riverside, and San Diego counties, on San Clemente Island, in Arizona, Baja California, and Sonora, Mexico. In San Diego County several thousand individuals grow on the slopes of Table Mountain near Jacumba. Otherwise most populations are small and scattered along the coast.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I, II
32	Otay tar plant (*Hemizonia conjugens*) PE/CE/List 1B, R-E-D 3-3-2	Clay soils in coastal sage scrub and valley and foothill grasslands.	Southern San Diego County and northwestern Baja California, Mexico. Most U.S. localities for this species occur in the vicinity of Chula Vista.	CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves populations and habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I, II
33	Heart-leaved pitcher sage (*Lepechinia cardiophylla*) Regionally sensitive species/List 1B, R-E-D 3-2-2	Close-coned coniferous forests, chaparral, and cismontane woodlands.	Orange, Riverside, San Diego counties and Baja California, Mexico. Restricted to one population on Iron Mountain in San Diego County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I, VI
34	Gander's pitcher sage (*Lepechinia ganderi*) Regionally sensitive species/List 1B, R-E-D 3-1-2	Close-coned coniferous forests, chaparral, coastal sage scrub, and valley and foothill grasslands.	San Diego County and Baja, California, Mexico. Known from four localities in San Diego County (Otay Mountain, the Jamul Mountains, San Miguel Mountain, and Donohoe Mountain).	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species. Three of the 4 populations are currently in designated open space.	I, II, VI

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TABLE 3.1 COVERED SPECIES LIST

#	SPECIES NAME & STATUS	HABITAT TYPES	RANGEWIDE AND LOCAL DISTRIBUTION OF SPECIES	DEGREE OF EXISTING PROTECTION	CONSERVATION PLANNING IMPLICATIONS	MITIGATION
	PLANTS					
35	Del Mar Mesa sand aster (*Corethrogyne filaginifolia* var. *linifolia*) PT/List 1B, R-E-D 3-2-3	Chaparral and coastal sage scrub.	San Diego County. Restricted to a few, disjunct populations between Los Penasquitos Canyon and Encinitas (possibly Carlsbad).	FESA (assuming federal action associated with take) and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves populations and habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I
36	Nuttall's lotus (*Lotus nuttallianus*) Regionally sensitive species/List 1B, R-E-D 3-3-2	Coastal dunes and coastal sage scrub.	Southern San Diego County to northern Baja California, Mexico. Restricted to approximately 6 localities along the immediate coast in San Diego County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I, III
37	Felt-leaved monardella (*Monardella hypoleuca* ssp. *lanata*) Regionally sensitive species/List 1B, R-E-D 2-2-2	Chaparral and cismontane woodland.	Orange and San Diego counties to Baja California, Mexico. Known from approximately 30 localities in San Diego County and possibly 1 locality in Orange County.	Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I, VI
38	Willowy monardella (*Monardella linoides* ssp. *viminea*) PE/CE/List 1B, R-E-D 2-3-2	Close-coned coniferous forests, chaparral, riparian forests, riparian scrub, and riparian woodland.	San Diego County to Baja California, Mexico. Known from approximately 16 localities in San Diego County.	CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	I, IV, V, VI
39	San Diego golden star (*Muilla clevelandii*) Regionally sensitive species/List 1B, R-E-D 2-2-2	Chaparral, coastal sage scrub, valley and foothill grasslands, and vernal pools.	San Diego County to Baja California, Mexico. Known from approximately 112 localities in San Diego County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitat that may include the species. Vernal pool populations will be adequately conserved by the Plan because impacts to vernal pools will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	I, II, IX
40	Little mousetail (*Myosurus minimus* ssp. *apus*) Regionally sensitive species/List 3, R-E-D 2-3-2	Vernal pools (alkaline).	Riverside, San Bernardino, San Diego, Butte, Alameda, Contra Costa, Colusa, Solano, Stanislaus, and Kern counties; Oregon; Baja California, Mexico. Restricted to several vernal pool complexes on the mesas north of San Diego and on Otay Mesa in San Diego County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts to vernal pools will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	IX
41	Prostrate navarretia (*Navarretia fossalis*) PT/List 1B, R-E-D 2-3-2	Vernal pools.	Riverside, San Diego counties to Baja California, Mexico. Restricted to populations on Otay Mesa, Camp Pendleton, and Ramona in San Diego County.	FESA (assuming federal action associated with take) and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts to vernal pools will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	IX

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	PLANTS					
42	Snake cholla (*Opuntia parryi* var. *serpentina*) Regionally sensitive species/List 1B, R-E-D 3-3-2	Chaparral, coastal sage scrub, and maritime succulent scrub.	Southwestern San Diego County into northwestern Baja California, Mexico. In San Diego County is known from approximately 14 localities.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided unless deemed necessary for emergencies or repairs.	I, IV
43	California Orcutt grass (*Orcuttia californica*) FE/CE/List 1B, R-E-D 3-3-2	Vernal pools.	Riverside and San Diego counties and in Baja California, Mexico. Known from approximately 10 localities in San Diego County and approximately 3 localities in Riverside County.	FESA (assuming federal action associated with take), CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts to vernal pools will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	IIX
44	Torrey pine (*Pinus torreyana*) Regionally sensitive species/List 1B, R-E-D 3-2-3	Sandstone in close-coned coniferous forests and chaparral.	Along the coast near Del Mar in San Diego County and on Santa Rosa Island. Known only from these two localities as natives.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I
45	San Diego mesa mint (*Pogogyne abramsii*) FE/CE/List 1B, R-E-D 2-3-3	Vernal pools.	San Diego County (Los Peñasquitos Canyon, Miramar, and San Diego). Restricted to these vernal pool complexes.	FESA (assuming federal action associated with take), CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts to vernal pools will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	IX
46	Otay mesa mint (*Pogogyne nudiuscula*) FE/CE/List 1B, R-E-D 3-3-2	Vernal pools.	Southwestern San Diego County and Baja California, Mexico. Restricted to 3 to 5 vernal pool complexes on Otay Mesa in San Diego County.	FESA (assuming federal action associated with take), CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	IV, IX
47	Small-leaved rose (*Rosa minutifolia*) CE/List 2, R-E-D 3-3-1	Chaparral.	San Diego County to Baja California, Mexico. In San Diego County, restricted to 1 thicket on northwestern Otay Mesa.	CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves populations and habitat to maximum extent practicable and preserves corridors connecting habitat thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitat that may include the species.	I
48	Dehesa beargrass (*Nolina interrata*) PT/CE/List 1B, R-E-D 3-3-2	Chaparral (gabbroic and serpentinite)	San Diego County to Baja California, Mexico. Known from approximately 9 localities in San Diego County.	CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves populations and habitat to maximum extent practicable and preserves corridors connecting habitat thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitat that may include the species.	I

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	PLANTS					
49	San Miguel savory (*Satureja chandleri*) Regionally sensitive species/List 4, R-E-D 1-2-2	Chaparral, cismontane woodland, coastal sage scrub, riparian woodland, and valley and foothill grasslands.	Northern Baja California, Mexico; San Diego County; and adjacent Orange and western Riverside counties. An extremely rare shrub with very few recent reports.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	I, II, V, VI
50	Gander's butterweed (*Senecio ganderi*) CR/List 1B, R-E-D 3-2-3	Chaparral (burned areas, gabbroic outcrops).	San Diego and Riverside counties. Known from approximately 11 localities in San Diego County.	CESA, NPPA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves populations and habitat to maximum extent practicable and preserves corridors connecting habitat thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitat that may include the species.	I
51	Narrow-leaved nightshade (*Solanum tenuilobatum*) Regionally sensitive species	Chaparral.	Southern San Diego County to Baja California, Mexico. Otay Mountain is a focus for populations of this species. Known from approximately 30 localities in San Diego County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitat. The Plan also preserves habitat to maximum extent practicable and preserves corridors connecting habitat thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitat that may include the species.	I
52	Parry's tetracoccus (*Tetracoccus dioicus*) Regionally sensitive species/List 1B, R-E-D 3-2-2	Chaparral and coastal sage scrub.	San Diego and Riverside counties and Baja California, Mexico. Approximately 32 known localities but rare in the southern portions of San Diego County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I

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	ANIMALS					
1	Cooper's hawk (*Accipiter cooperii*) SSC	Riparian woodlands.	Throughout the continental U.S. excluding Alaska, parts of Montana, and parts of the Dakotas. Winters south to Mexico and Honduras. Uncommon migrant, winter visitor, and summer resident in San Diego County. Breeds in San Diego County.	CEQA and MBTA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan are discountable because the species has such a widespread distribution. Also, the Plan preserves its habitats to the maximum extent practicable. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	VIII
2	Tricolored blackbird (*Agelaius tricolor*) SSC	Croplands, edges of fields, and edges of ponds.	California's Central Valley, west of the Sierra Nevada Mountains from San Diego County north to Lake County. Breeding populations in California in Siskiyou and Modoc counties and in southern Oregon. Very common to abundant, but localized, resident in San Diego County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	III
3	Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*) SSC	Coastal sage scrub and chaparral.	Ventura County southeast through Los Angeles, Orange, Riverside and San Diego counties to northwestern Baja California, Mexico. Uncommon to fairly common, but localized, resident in San Diego County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	I
4	Grasshopper sparrow (*Ammodramus savannarum*) Regionally sensitive species	Grasslands.	Southern Canada to the southern U.S., West Indies, and Mexico to Ecuador. Uncommon and localized summer resident; may be very rare in winter.	Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, the species has a somewhat broad distribution, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats thereby providing for genetic material exchange and opportunities for natural population expansion. It may also restore and reclaim habitats that may include the species.	II
5	Golden eagle (*Aquila chrysaetos*) BEPA/SSC	Rolling foothills, mountains, sage-juniper flats, and desert.	Mountain regions of the Northern Hemisphere. Throughout California except the center of the Central Valley. Uncommon resident in San Diego County. As of 1981, the number of breeding pairs(38) within the western half of the County had decreased by 33% from 1928 levels.	BEPA and CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan are discountable because the species is an uncommon resident in San Diego County, and any impacts would be extremely small relative to the large range of the species. Also, the Plan preserves its habitats to the maximum extent practicable.	VIII
6	Canada goose (*Branta canadensis*) Regionally sensitive species	Fresh, emergent wetlands, moist grasslands, croplands, pastures, and meadows.	Alaska, Canada, northern U.S. Winters to northern Mexico. Central Valley, Salton Sea, and northeastern California. Abundant but localized winter visitor. Wintering populations have declined in San Diego County due to wetland habitat loss.	MBTA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, the species has a somewhat broad distribution, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	II, III
7	Ferruginous hawk (*Buteo regalis*) SSC	Grasslands, sagebrush flats, desert scrub, low foothills surrounding valleys, and pinyon-juniper habitats.	Southwestern Canada and the western U.S. Winters in the southwestern U.S. and northern Mexico. Uncommon winter visitor.	CEQA and MBTA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan are discountable because the species is an uncommon winter visitor in San Diego County, and any impacts would be extremely small relative to the large range of the species. Also, the Plan preserves its habitats to the maximum extent practicable.	VIII

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TABLE 3.1 COVERED SPECIES LIST

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	ANIMALS					
8	Swainson's hawk (*Buteo swainsoni*) CT	Juniper-sage flats, riparian areas, oak savannah, and grasslands.	Northwestern North America to northern Mexico. Winters to Argentina. Spring and fall transient in southern California. Uncommon breeding resident in northeastern California and the Central Valley. Uncommon spring migrant; very rare fall migrant.	CESA, CEQA, and MBTA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan are discountable because the species is an uncommon spring migrant and very rare fall migrant in San Diego County, and any impacts would be extremely small relative to the large range of the species. Also, the Plan preserves individuals and habitats to the maximum extent practicable. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	VIII
9	Coastal cactus wren (*Campylorhynchus brunneicapillus*) SSC	Coastal sage scrub and maritime succulent scrub.	Southern Orange County south through San Diego County into northwestern Baja California, Mexico. San Diego County population estimated to be less than 300 pairs with highly disjunct distribution and small, fragmented populations.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided; no direct killing or injury to individuals will occur unless deemed necessary for emergencies or repairs.	I, IV
10	Western snowy plover (coastal) (*Charadrius alexandrinus nivosus*) FT/SSC	Sandy marine and estuarine shores.	Breeds throughout the western U.S.; Baja California, Mexico; the coastal southeastern U.S.; and the Bahamas. In winter, migrates to coastal areas and south to Central and South America. Common migrant, winter visitor, and localized breeding resident in San Diego County.	FESA, CEQA, and MBTA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves individuals and habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	III, VII
11	Mountain plover (*Charadrius montanus*) SSC	Grasslands and plowed fields.	Breeds in the U.S. west of 95° W longitude in the Great Plains and Rocky Mountain states. Winters from the southwestern U.S. to Mexico, including the Baja California, Mexico. Common to very common, but extremely localized, winter visitor.	CEQA and MBTA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, the species has a somewhat broad distribution, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	II
12	Northern harrier (*Circus cyaneus*) SSC	Meadows, grasslands, open rangelands, desert sinks, and fresh and saltwater emergent wetlands.	Widespread throughout the temperate regions of North America and Eurasia. Uncommon to fairly common migrant and winter visitor, rare and local summer resident in San Diego County.	CEQA and MBTA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan are discountable because the species is an uncommon to fairly common migrant and winter visitor but a rare and local summer resident in San Diego County. Any impacts would be extremely small relative to the large range of the species. Also, the Plan preserves its habitats to the maximum extent practicable. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	VIII
13	Reddish egret (*Egretta rufescens*) Regionally sensitive species	Brackish marshes, shallow, coastal habitats, and mangroves.	Breeds on southeast coast of the U.S.; east and west coasts of Baja California, Mexico; other parts of Mexico; and on some Carribean islands. Winters throughout its breeding range, but extends its range south to include Central America to El Salvador. A few reddish egrets (1-4 individuals) are typically found along the southern San Diego County coast. Most occurrences are in fall and winter. There are no breeding records for the County.	CEQA and MBTA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan are discountable because the species is found in very small numbers (1-4 individuals) in the fall and winter in San Diego County. Also, the Plan preserves its habitats to the maximum extent practicable. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	III
14	Southwestern willow flycatcher (*Empidonax traillii extimus*) FE/CE	Breeds in thickets of willows or other riparian understory, along streams, ponds or lakes, or in canyon drainage bottoms. Migrants may be located among any of the larger trees or shrubs in the County of San Diego but seem to prefer damp areas.	U.S. breeding range is so. California, Arizona, Utah, Nevada, New Mexico, and Texas. Small, breeding populations persist in major river valleys in San Diego County.	FESA, CESA, CEQA, and MBTA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves individuals and habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	V
15	American peregrine falcon (*Falco peregrinus anatum*) FE/CE	Open grasslands and scrublands, cliffs and steep terrain, sometimes urban areas. Often found along the coast or near lagoons and ponds where waterfowl gather.	Southern California as a rare visitor, primarily along the coast. Only one pair has bred in San Diego County since the 1950s. In winter, occurs along coastal areas and at reservoirs in the County.	FESA, CESA, CEQA, and MBTA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan are discountable because the species is a rare visitor along the coast in San Diego County, and any impacts would be extremely small relative to the large range of the species. Also, the Plan preserves individuals and habitats to the maximum extent practicable. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	VIII

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	ANIMALS					
16	Bald eagle (*Haliaeetus leucocephalus*) (BEPA) FE/CE	Coasts, rivers, large lakes, mountains, and open country.	Alaska, Canada to southern U.S. Inland waters in winter in southern California. Uncommon winter visitor to San Diego County.	BEPA, FESA, CESA, CEQA, and MBTA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan are discountable because the species is an uncommon winter visitor in San Diego County. Also, the Plan preserves individuals and habitats to the maximum extent practicable. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	VIII
17	Long-billed curlew (*Numenius americanus*) SSC	Rangeland, cultivated land, tideflats, beaches, and salt marshes.	Southwestern Canada, western U.S. Winters to Guatemala. Common migrant and winter visitor to San Diego County; no breeding records.	CEQA and MBTA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, the species has a somewhat broad distribution, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	III
18	Belding's savannah sparrow (*Passerculus sandwichensis beldingi*) CE	Restricted to salt marshes around coastal lagoons that are dominated by pickleweed (*Salicornia* spp.)	Santa Barbara County south to El Rosario, Baja California, Mexico. Localized, permanent resident in San Diego County.	CESA and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves individuals and habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	III
19	Large-billed savannah sparrow (*Passerculus sandwichensis rostratus*) SSC	Open fields, meadows, salt marshes, dunes, and shores.	Alaska, Canada to Guatemala. Winters to Honduras, West Indies. Scarce along the southern California coast.	CEQA and MBTA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan are discountable because the species is scarce along the southern California coast. Also, the Plan preserves its habitats to the maximum extent practicable. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	III
20	California brown pelican (*Pelecanus occidentalis californicus*) FE/CE	Open salt water, bays, and beaches.	West coast of the U.S. and Baja California, Mexico. Common to very common non-breeding visitor to San Diego County.	FESA, CESA, CEQA, and MBTA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves individuals and habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	III, VII
21	White-faced ibis (*Plegadis chihi*) SSC	Freshwater marshes, irrigated land.	Western U.S. to Argentina. In San Diego County, uncommon migrant and winter visitor; rare in summer.	CEQA and MBTA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan are discountable because the species is an uncommon migrant and winter visitor and is rare in summer in San Diego County. Also, the Plan preserves its habitats to the maximum extent practicable. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	III
22	Coastal California gnatcatcher (*Polioptila californica californica*) FT/SSC	Coastal sage scrub.	Southern Los Angeles, Orange, western Riverside, and San Diego counties south into Baja California, Mexico. In 1990, Atwood estimated that approximately 1,819 to 2,262 pairs occurred in southern California.	FESA and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves individuals and habitat to maximum extent practicable and preserves corridors connecting habitat. It may also restore and reclaim habitat that may include the species.	I
23	Light-footed clapper rail (*Rallus longirostris levipes*) FE/CE	Saltwater and brackish marshes.	Central and southern California; Baja California, Mexico; and the Gulf of California. The total California population was estimated to be 235 pairs in 1991.	FESA, CESA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves individuals and habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	III
24	Western bluebird (*Sialia mexicana*) Regionally sensitive species	Scattered trees; open, coniferous forests; and farms. In winter, brush and deserts.	Southern British Columbia and western U.S. to the mountains of central Mexico. Common to very common resident and winter visitor in San Diego County.	Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, the species has a somewhat broad distribution, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	VI

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	ANIMALS					
25	Western burrowing owl (*Speotyto cunicularia hypogea*) SSC	Open grasslands, prairies, farmlands, and airfields.	Southwestern Canada, western U.S. Uncommon and rapidly declining in California.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided; no direct killing or injury to individuals will occur unless deemed necessary for emergencies or repairs.	II, IV
26	California least tern (*Sterna antillarum browni*) FE/CE	Sea beaches, bays, large rivers, bars.	Temperate and tropical oceans. Winters south of the U.S. In San Diego County the number of nesting pairs was 500 in 1991.	FESA, CESA, CEQA, and MBTA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves individuals and habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	III
27	Elegant tern (*Sterna elegans*) SSC	Shallow ocean waters, bays, and lagoons. Strictly associated with salt water.	Breeds on islands off Baja California, Mexico and near San Diego. Winters from Peru to Chile. Irregularly wanders north to San Francisco Bay. Abundant summer resident in the single nesting colony at the south end of the San Diego Bay.	CEQA and MBTA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	III
28	Least Bell's vireo (*Vireo bellii pusillus*) FE/CE	Riparian woodlands.	Formerly common and widespread in California and northwestern Baja California, Mexico. Known to winter only in southern Baja California, Mexico. Over 460 breeding pairs or territorial males were documented in San Diego County in 1991.	FESA, CESA, CEQA, and MBTA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves individuals and habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	V
29	Thorne's hairstreak butterfly (*Mitoura thornei*) Regionally sensitive species	Closed-cone pine forest.	Restricted to the same distribution of the larval food plant, Tecate cypress (*Cupressus forbesii*). in three locations in San Diego County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitat. The Plan also preserves habitat to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitat that may include the species.	VII
30	San Diego fairy shrimp (*Branchinecta sandiegoensis*) PE	Seasonally astatic pools which occur in tectonic swales or earth slump basins in patches of grassland and agriculture interspersed in coastal sage scrub and southern mixed chaparral vegetation.	Occurs throughout San Diego County.	FESA and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts to vernal pools will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	IX
31	Salt marsh skipper (*Panoquina errans*) Regionally sensitive species	Tidelands and estuaries.	Santa Barbara County to the southern tip of Baja California, Mexico. Associated with nearly every coastal lagoon in San Diego County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided; no direct killing or injury to individuals will occur unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	III, IV
32	Riverside fairy shrimp (*Streptocephalus wootoni*) FE	Seasonally astatic pools occurring in tectonic swales or earth slump basins in patches of grassland and agriculture interspersed in coastal sage scrub.	Known only from five vernal pools in western Riverside County in the vicinity of Temecula and Rancho California, from one pool on Otay Mesa in San Diego County, and from one pool at an undisclosed location in northern Baja California, Mexico.	FESA and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts to vernal pools will be avoided unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	IX
33	Coronado skink (*Eumeces skiltonianus interparietalis*) SSC	Grasslands, coastal sage scrub, open chaparral, pine oak woodland, and coniferous forests.	Southwestern California from Los Angeles County south into northwestern Baja California, Mexico. Also occurs on several islands off the Pacific coast including Los Coronados Islands. Relatively limited distribution.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	I

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	ANIMALS					
34	Stephens' kangaroo rat (*Dipodomys stephensi*) FE/CT	Grasslands, coastal sage scrub or sagebrush with sparse canopy cover, and disturbed areas.	Around San Jacinto Valley from Riverside County south to the vicinity of Vista in San Diego County. Geographic range is estimated to encompass 708,641 acres, which is unusually small for rodents, particularly kangaroo rats.	FESA, CESA, and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided; no direct killing or injury to individuals will occur unless deemed necessary for emergencies or repairs.	X
35	San Diego desert woodrat (*Neotoma lepida intermedia*) SSC	Favors xeric habitats. Coastal habitats include open chaparral and coastal sage scrub.	Restricted to the coastal slope of southern California, from San Luis Obispo County south into northwestern Baja California, Mexico. Population information lacking.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	I
36	Pacific little pocket mouse (*Perognathus longimembris pacificus*) FE/SSC	Near the ocean where the substrate consists of fine, alluvial sands, and the dominant vegetation is coastal sage scrub or weeds.	Historically recorded from Marina del Rey/El Segundo south along the coast to the Tijuana River Valley north of the international border in San Diego County. May occur at other localities. Only three currently recorded localities remain out of eight historic localities: Dana Point, Orange County and Marine Corps Base Camp Pendleton, San Diego County.	FESA and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided; no direct killing or injury to individuals will occur unless deemed necessary for emergencies or repairs.	I, IV
37	Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*) SSC	Coastal sage scrub and weedy growth, often on sandy substrates.	Southwestern San Bernardino, western Riverside, eastern Los Angeles, and San Diego counties south into Baja California, Mexico. Population information lacking.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	I
38	Pallid San Diego pocket mouse (*Chaetodipus fallax pallidus*) SSC	Chamise-redshank and mixed chaparrals, sagebrush, desert wash, desert scrub, pinyon-juniper, and annual grassland .	Eastern Los Angeles, southwestern San Bernardino, central Riverside, eastern San Diego, and western Imperial Counties. Population information lacking.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	I, II
39	Dulzura pocket mouse (*Chaetodipus californicus femoralis*) SSC	Primarily associated with mature chaparral and is less common in open stands of this vegetation. Has been trapped in mulefat scrub.	Santa Margarita River south to northern Baja California, Mexico. Population information lacking.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	I, V
40	Southern grasshopper mouse (*Onychomys torridus ramona*) SSC	Wide variety including various scrublands. May be associated with clumps of cactus or yucca.	Northern Los Angeles County along the coastal slope to extreme northwestern Baja California, Mexico. Population information lacking.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	I
41	Los Angeles pocket mouse (*Perognathus longimembris brevinasus*) SSC	Coastal sage scrub and sagebrush.	Los Angeles, southwestern San Bernardino, and western Riverside counties. Population information lacking.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	I
42	Jacumba pocket mouse (*Perognathus longimembris internationalis*) SSC	Sagebrush.	San Diego County. Population information lacking.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitat. The Plan also preserves habitat to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitat that may include the species.	I
43	San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) SSC	Coastal sage scrub, chaparral, grasslands, croplands, and open, disturbed areas provided there is at least some scrub cover present.	Southern Santa Barbara County, south on the coastal slope to the vicinity of San Quintin, Baja California, Mexico. Localities on the eastern edge of its range include Jacumba and San Felipe Valley in San Diego County. Relatively common in open areas in coastal southern California.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	I, II

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TABLE 3.1 COVERED SPECIES LIST

#	SPECIES NAME & STATUS	HABITAT TYPES	RANGEWIDE AND LOCAL DISTRIBUTION OF SPECIES	DEGREE OF EXISTING PROTECTION	CONSERVATION PLANNING IMPLICATIONS	MITIGATION
	ANIMALS					
44	Mountain lion (*Felis concolor*) Regionally sensitive species	Nearly all habitats.	In California, sea level to alpine meadows, except xeric regions of the Mojave and Colorado deserts not supporting mule deer (*Odocoileus hemionus*) populations. Relatively common and most abundant in riparian areas and brushy stages of most habitats.	Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	None
45	Southern mule deer (*Odocoileus hemionus fuliginata*) Game species	Coastal sage scrub, riparian and mountain forests, chaparral, grasslands, croplands, and open, disturbed areas provided there is at least some scrub cover present.	Southern Riverside County (Tahquitz Valley), south on the coastal slope to the vicinity of San Quintin, Baja California, Mexico. Relatively common along the coastal foothills of southern California.	Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	None
46	American badger (*Taxidea taxus*) SSC	Drier, open stages of most shrub, forest, and herbaceous habitats with friable soils.	Central and southwestern North America. Throughout most of California except the North Coast area. Widespread but thought to be declining in California.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	II
47	Arroyo southwestern toad (*Bufo microscaphus californicus*) FE/SSC	Restricted to rivers with shallow, gravelly pools adjacent to sandy terraces.	Formerly distributed from southern California to the northwestern coastal region of Baja California, Mexico. Most remaining populations occur within, or adjacent to, the Cleveland National Forest. Only 6 of the 22 extant populations south of Ventura are known to contain more than a dozen adults.	FESA and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan prioritizes avoidance, minimization, and mitigation (in that order) for any potential impacts. The Plan preserves individuals and habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	V
48	Western spadefoot toad (*Scaphiopus hammondi*) SSC	Occurs primarily in grassland situations, but occasional populations occur in valley-foothill hardwood woodlands.	In California, throughout the Central Valley and adjacent foothills from Santa Barbara County south to the Mexican border. Usually quite common where it occurs.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	I
49	Southwestern pond turtle (*Clemmys marmorata pallida*) SSC	Wetland habitats including freshwater marshes, creeks, ponds, and reservoirs.	Vicinity of Monterey south into northwestern Baja California, Mexico. Primarily west of the major mountain ranges in southern California, but there is a population along the Mojave River in San Bernardino County. Very few viable populations left south of Santa Barbara County.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	V
50	Orangethroat whiptail (*Cnemidophorus hyperythrus beldingi*) SSC	Coastal sage scrub, chaparral, edges of riparian woodlands, and washes; and in weedy, disturbed areas adjacent to these habitats.	Southern Orange County and southern San Bernardino County (Colton), south to the cape of Baja California, Mexico. Locally common.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	I
51	San Diego banded gecko (*Coleonyx variegatus abboti*) Regionally sensitive species	Chaparral and coastal sage scrub in areas with rock outcrops.	Southern slopes of the San Gabriel Mountains of Los Angeles County, south throughout cismontane and coastal southern California into northwestern Baja California, Mexico. Also found on Cedros Island off the Pacific coast of Baja California, Mexico. Population information lacking.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	I

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#	SPECIES NAME & STATUS	HABITAT TYPES	RANGEWIDE AND LOCAL DISTRIBUTION OF SPECIES	DEGREE OF EXISTING PROTECTION	CONSERVATION PLANNING IMPLICATIONS	MITIGATION
	ANIMALS					
52	Northern red rattlesnake (*Crotalus ruber ruber*) SSC	Chaparral, woodland, and arid habitats in rocky areas and dense vegetation.	Extreme southeastern Los Angeles County (Diamond Bar) into southern San Bernardino County and south into southern Baja California, Mexico. Relatively common in the foothill zone and on the desert slopes.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	I
53	San Diego ringneck snake (*Diadophis punctatus similis*) Regionally sensitive species	Oak woodlands and canyon bottoms. Sometimes encountered in grassland, chaparral, and coastal sage scrub.	Southwestern San Bernardino County south along the coastal slope into northwestern Baja California, Mexico. Population information lacking.	CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	I
54	Coastal rosy boa (*Lichanura trivirgata roseofusca*) Regionally sensitive species	In or near rocky areas in coastal sage scrub, chaparral, and desert scrub.	Transverse Ranges in Los Angeles and San Bernardino counties south into northwestern Baja California, Mexico. It also ranges east to the lower desert slope. Population information lacking.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	I
55	San Diego horned lizard (*Phrynosoma coronatum blainvillei*) SSC	Coastal sage scrub, chaparral, open oak woodlands and open coniferous forests in the mountains.	Southern California, west of the deserts, and ranges south into northern Baja California, Mexico. Relatively common in foothill areas that contain large expanses of good habitat.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	I
56	California red-legged frog (*Rana aurora draytonii*) PE/SSC	Dense shrubby, emergent riparian vegetation closely associated with deep, still, or slow moving water.	Central and southern California. Has been extirpated from 75% of its former range.	FESA and CEQA. Plan's Operational Protocols would not be in place to avoid impacts as a first priority during SDG&E activities.	Adequately conserved by the Plan because impacts will be avoided; no direct killing or injury to individuals will occur unless deemed necessary for emergencies or repairs. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	IV, V
57	Coast patch-nosed snake (*Salvadora hexalepis virgultea*) SSC	Primarily chaparral, but also coastal sage scrub and areas of grassland mixed with scrub.	Santa Barbara County south to northwestern Baja California, Mexico. Population information lacking.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species.	I
58	Two-striped garter snake (*Thamnophis hammondii*) Regionally sensitive species	Along permanent creeks, streams, vernal pools and along intermittent creeks. Occasionally found in chaparral or other habitats relatively far from permanent water.	Monterey County south through the coastal ranges into northwestern Baja California, Mexico. Rare or extirpated from many areas where it was formerly common.	CEQA. Plan's Operational Protocols would not be in place to minimize or mitigate impacts as a first priority during SDG&E activities.	Effects of Plan on species are considered insignificant because impacts would generally be very small, and the Plan minimizes or mitigates (in that order) any potential impacts that occur to the species' habitats. The Plan also preserves habitats to maximum extent practicable and preserves corridors connecting habitats. It may also restore and reclaim habitats that may include the species. Permitting pursuant to Section 404 of the federal Clean Water Act and/or Section 1600 of the California Fish and Game Code may be necessary for impacts to ACOE and/or CDFG jurisdictional areas.	I

STATUS
SSC = CDFG Species of special concern
CE = California endangered
CT = California threatened
CR = California rare
FE = Federally listed endangered
FT = Federally listed threatened
PE = Federally proposed endangered
PT = Federally proposed threatened
C1 = Enough data to support federal listing

List 1B = Rare and endangered in California and elsewhere
List 2 = Rare and endangered in California but more common elsewhere
List 3 = More information needed
List 4 = Limited distribution (a watch list)

R (Rarity)
1 = Rare but found in sufficient numbers and distributed widely enough that potential for extinction or extirpation is low at this time.
2 = Occurrence confined to several populations or one extended population.
3 = Occurrence limited to 1 or a few highly restricted populations or present in such small numbers that it is seldom reported.

E (Endangerment)
1 = Not endangered
2 = Endangered in a portion of its range
3 = Endangered throughout its range

D (Distribution)
1 = More or less widespread outside of California
2 = Rare outside California
3 = Endemic to California

ABBREVIATIONS
ACOE = U.S. Army Corps of Engineers
BEPA = Bald Eagle Protection Act
CDFG = California Department of Fish and Game
CEQA = California Environmental Quality Act
CESA = California Endangered Species Act
FESA = Federal Endangered Species Act
MBTA = Migratory Bird Treaty Act
NPPA = Native Plant Protection Act

MITIGATION
I. Scrub and chaparral species
II. Grassland species
III. Beach, marsh, and wetland species
IV. Narrow endemic plant and animal species
V. Riparian species
VI. Forest (woodland) species
VII. Open water species
VIII. Raptor species
IX. Vernal pool species
X. Stephens' kangaroo rat

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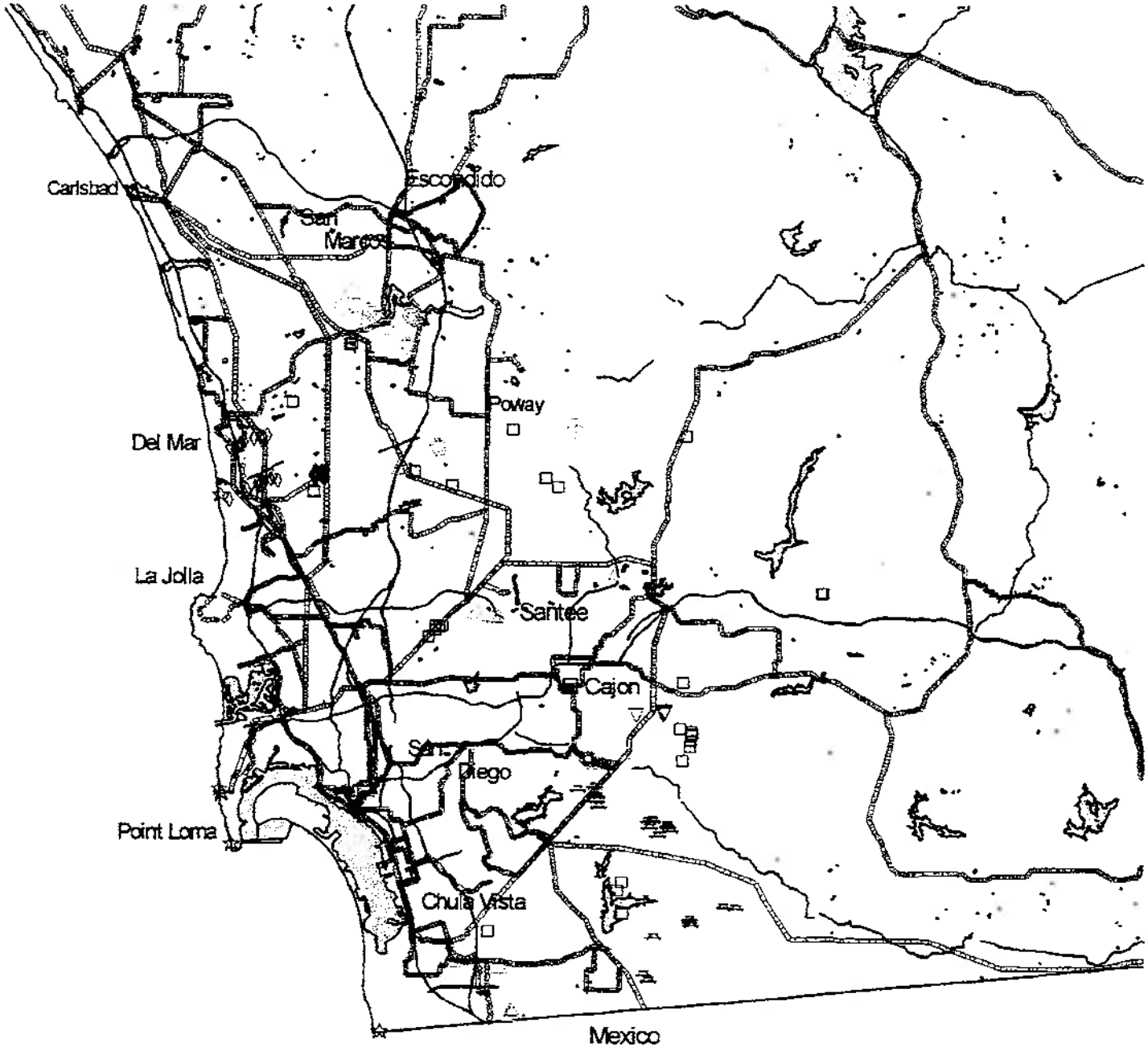
SDG&E Subregional NCCP



10 0 Miles

MSCP Selected Sensitive Plants (Figure 3.1a)
- San Diego Thorn-Mint
- Shaw's Agave
- San Diego Ambrosia
- Del Mar Manzanita
- Otay Manzanita
- Dean's Milk Vetch
- Encinitas Baccharis
- SDG&E Major Transmission Lines
- Lakes
- Freeways
- San Diego County

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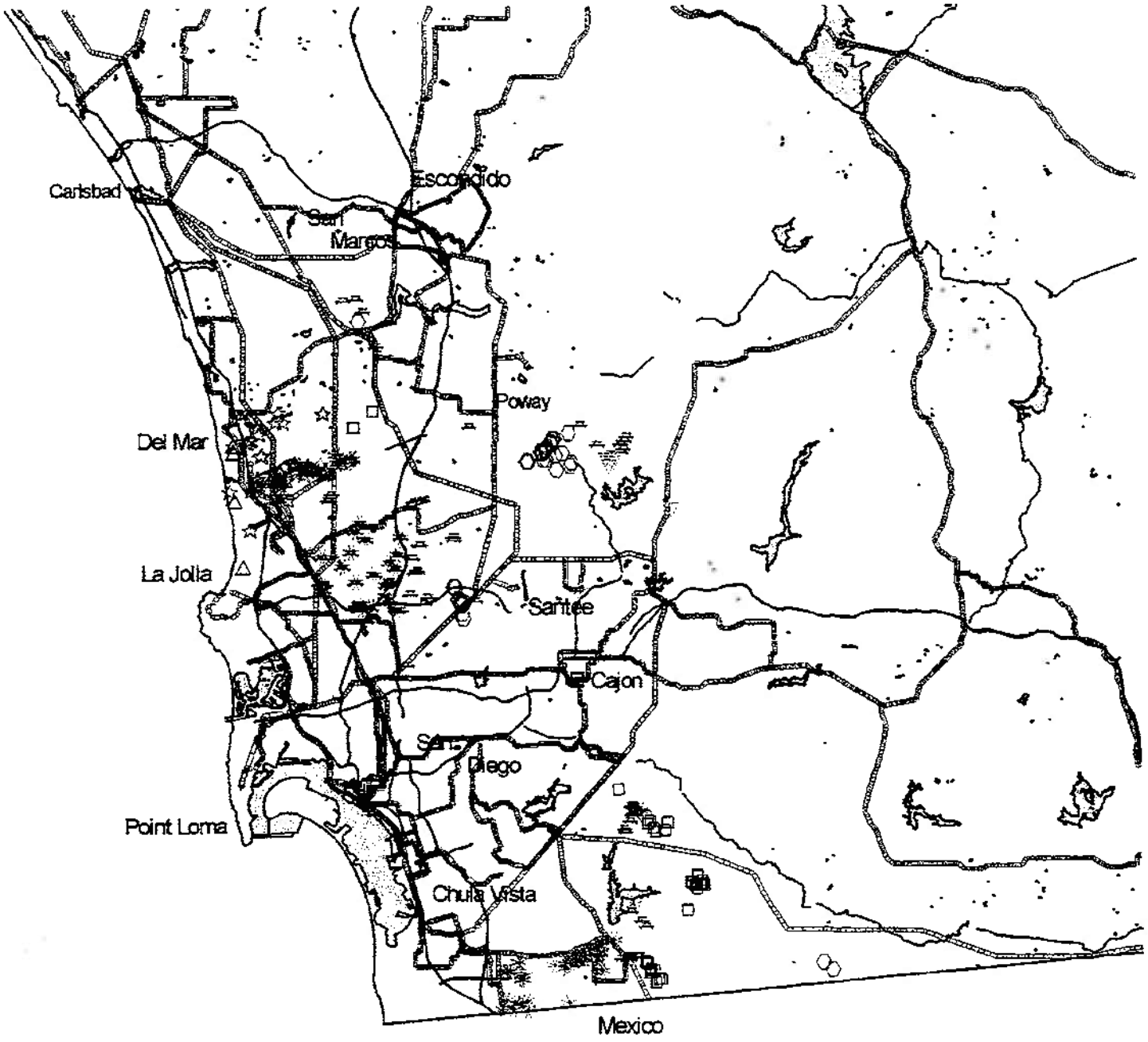
N

FIGURE
3.1a

SDG&E Subregional NCCP



10 0 Miles

MSCP Selected Sensitive Plants (Figure 3.1b)
- Orcutt's Brodiaea
- Dunn's Mariposa Lily
- Slender-Pod Jewelflower
- Lakeside Ceanothus
- Del Mar Mesa Sand Aster
- Short-Leaved Dudleya
- Sticky Dudleya
- San Diego Button-Celery
- SDG&E Major Transmission Lines
- Lakes
- Freeways
- San Diego County

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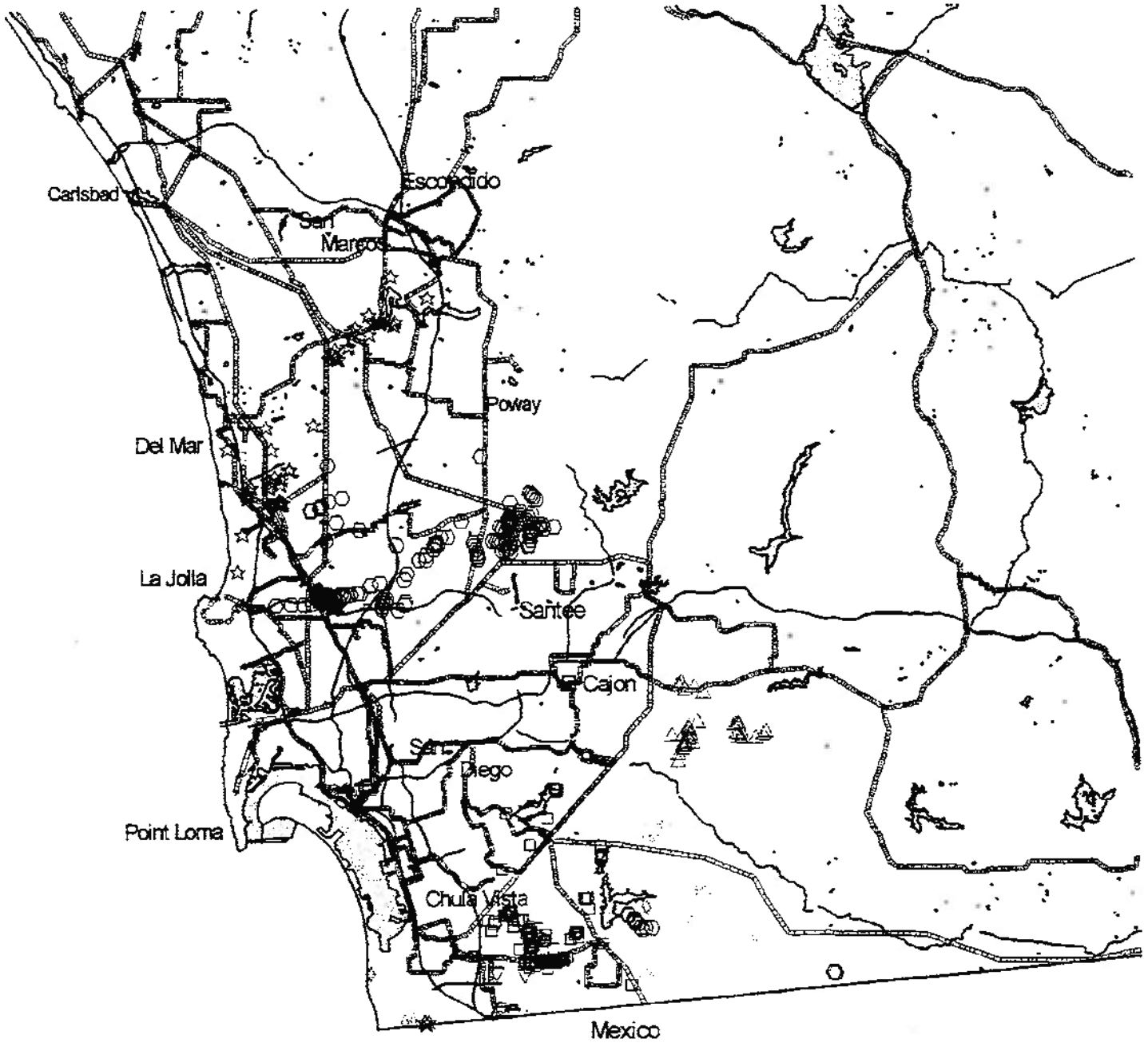
N

FIGURE
3.1b

SDGE Subregional Natural Community Conservation Plan

SDG&E Subregional NCCP



10 0 Miles

MSCP Selected Sensitive Plants (Figure 3.1c)
- Wart-Stemmed Ceanothus
- Orcutt's Bird's-Beak
- Otay Tarplant
- Gander's Pitcher Sage
- Willowy Monardella
- Dehesa Bear Grass
- California Orcutt Grass
- Small-Leaved Rose
- SDG&E Major Transmission Lines
- Lakes
- Freeways
- San Diego County

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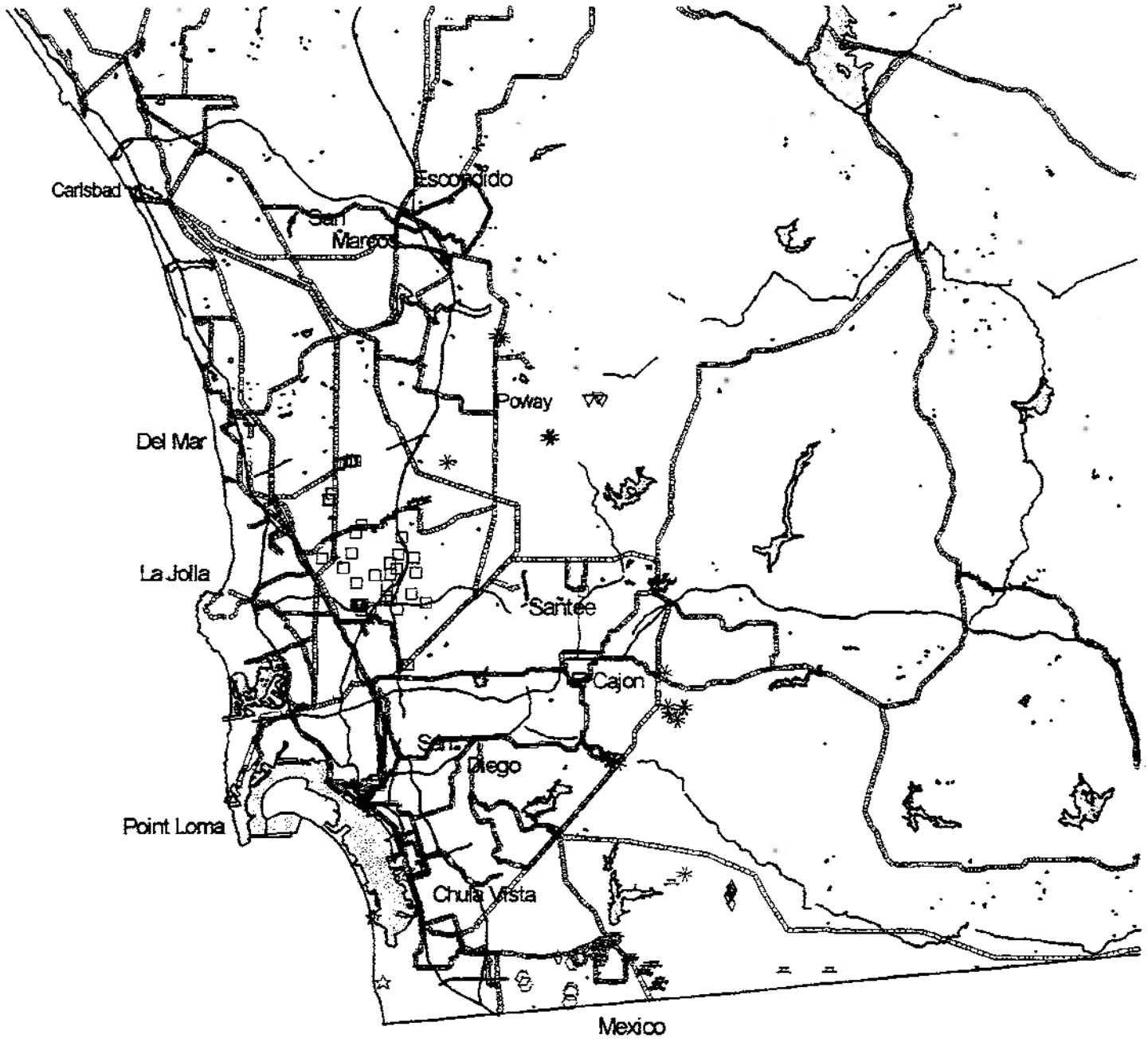
N

FIGURE
3.1c

SDG&E Subregional NCCP



10 0 Miles

MSCP Selected Sensitive Plants (Figure 3.1d)
- San Diego Mesa Mint
- Otay Mesa Mint
- Coast Wallflower
- Mexican Flannelbush
- Tecate Cypress
- Heart-Leaved Pitcher Sage
- Salt Marsh Bird's-Beak
- Palmer's Ericameria
- SDG&E Major Transmission Lines
- Lakes
- Freeways
- San Diego County

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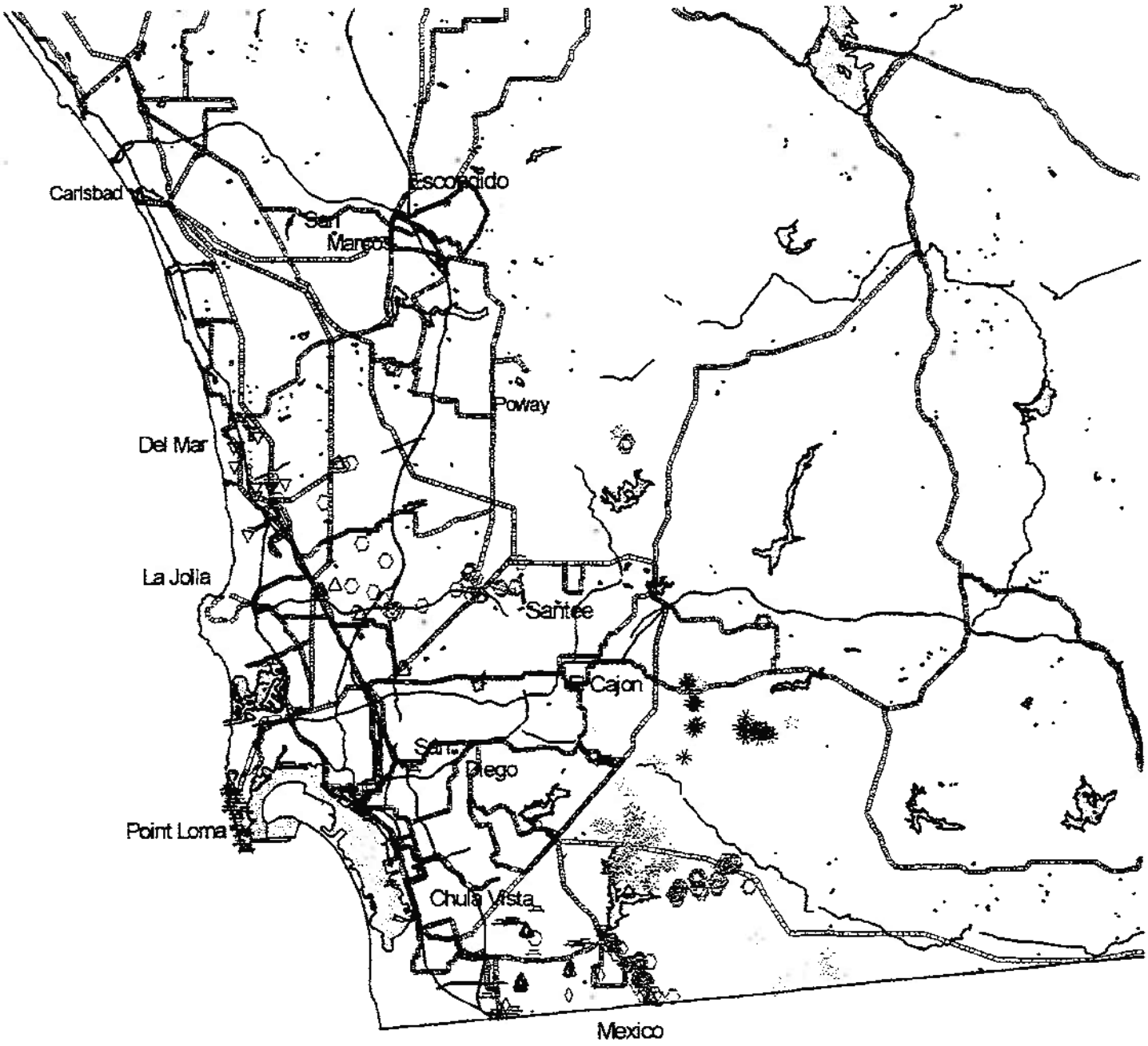
N

FIGURE
3.1d

SDGE Subregional Natural Community Conservation Plan

SDG&E Subregional NCCP



10 0 Miles

MSCP Selected Sensitive Plants (Figure 3.1e)
- Gander's Butterweed
- San Diego Goldenstar
- Little Mousetail
- Prostrate Navarretia
- Snake Cholla
- Torrey Pine
- Narrow-Leaved Nightshade
- Parry's Tetracoccus
- SDG&E Major Transmission Lines
- Lakes
- Freeways
- San Diego County

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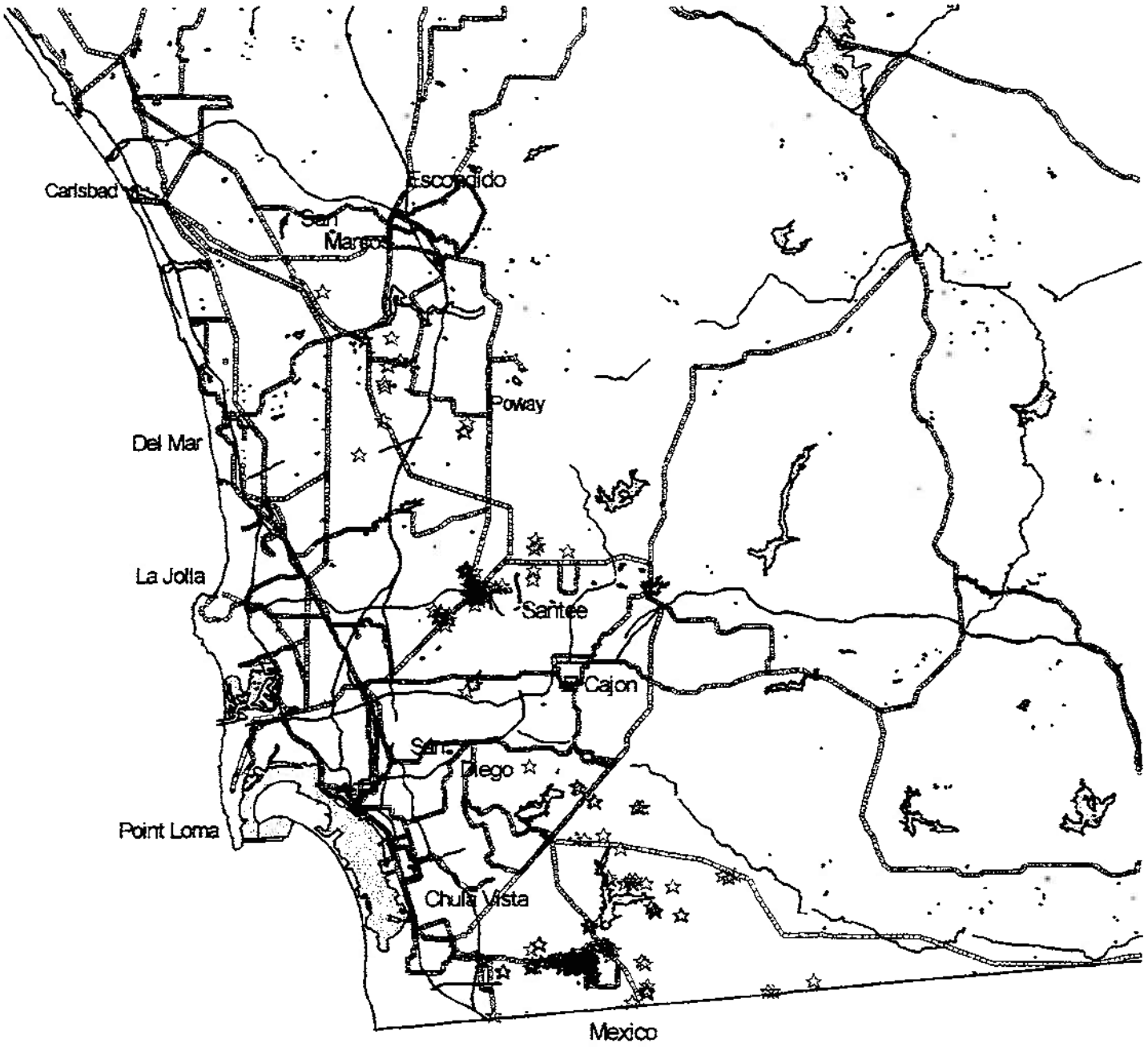
N

FIGURE
3.1e

SDGE Subregional Natural Community Conservation Plan

SDG&E Subregional NCCP



10 0 Miles

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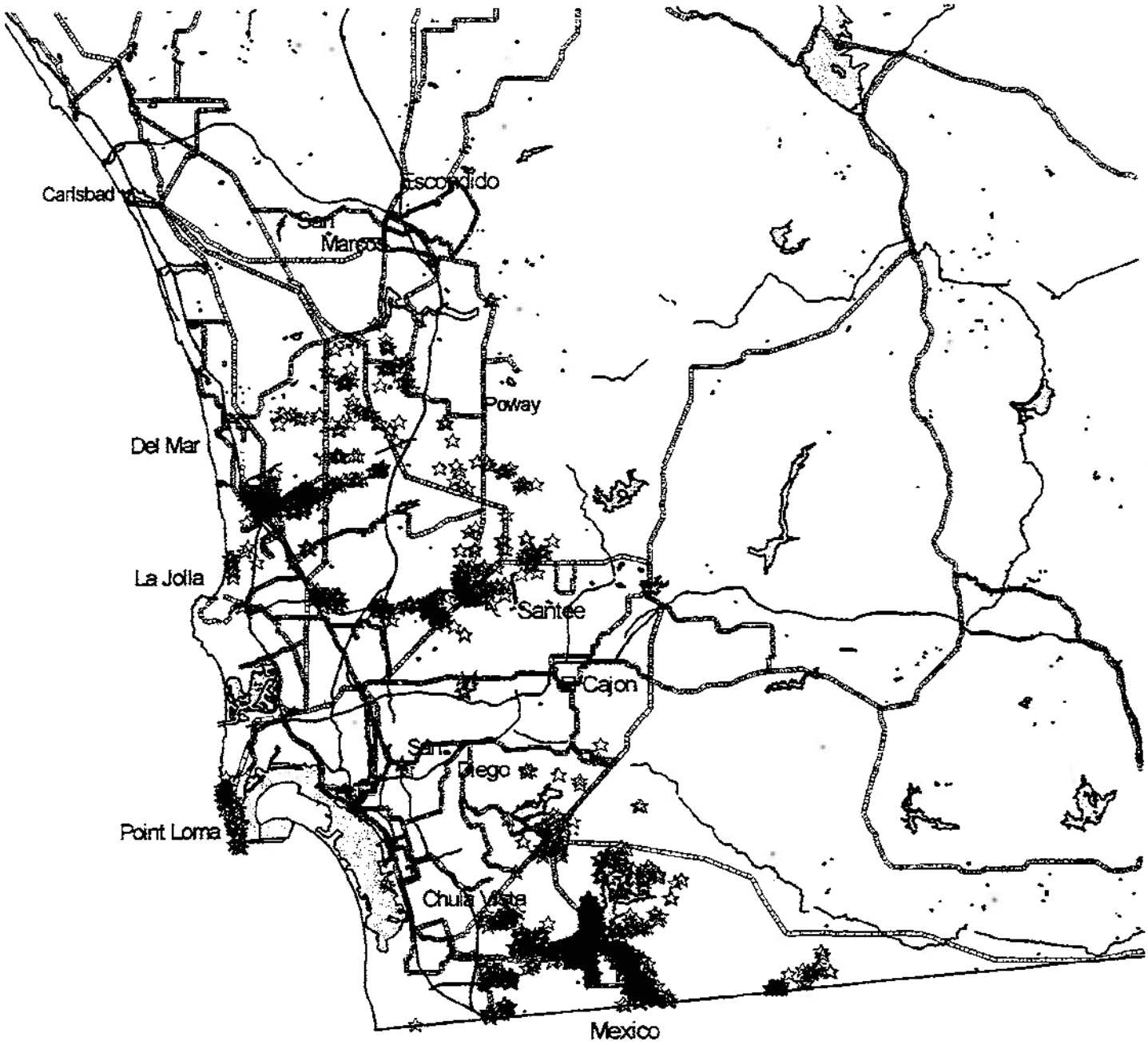
N

MSCP Selected Sensitive Plants (Figure 3.1f)
- Variegated Dudleya
- SDG&E Major Transmission Lines
- Lakes
- Freeways
- San Diego County

FIGURE
3.1f

SDGE Subregional Natural Community Conservation Plan

SDG&E Subregional NCCP



10 0 Miles

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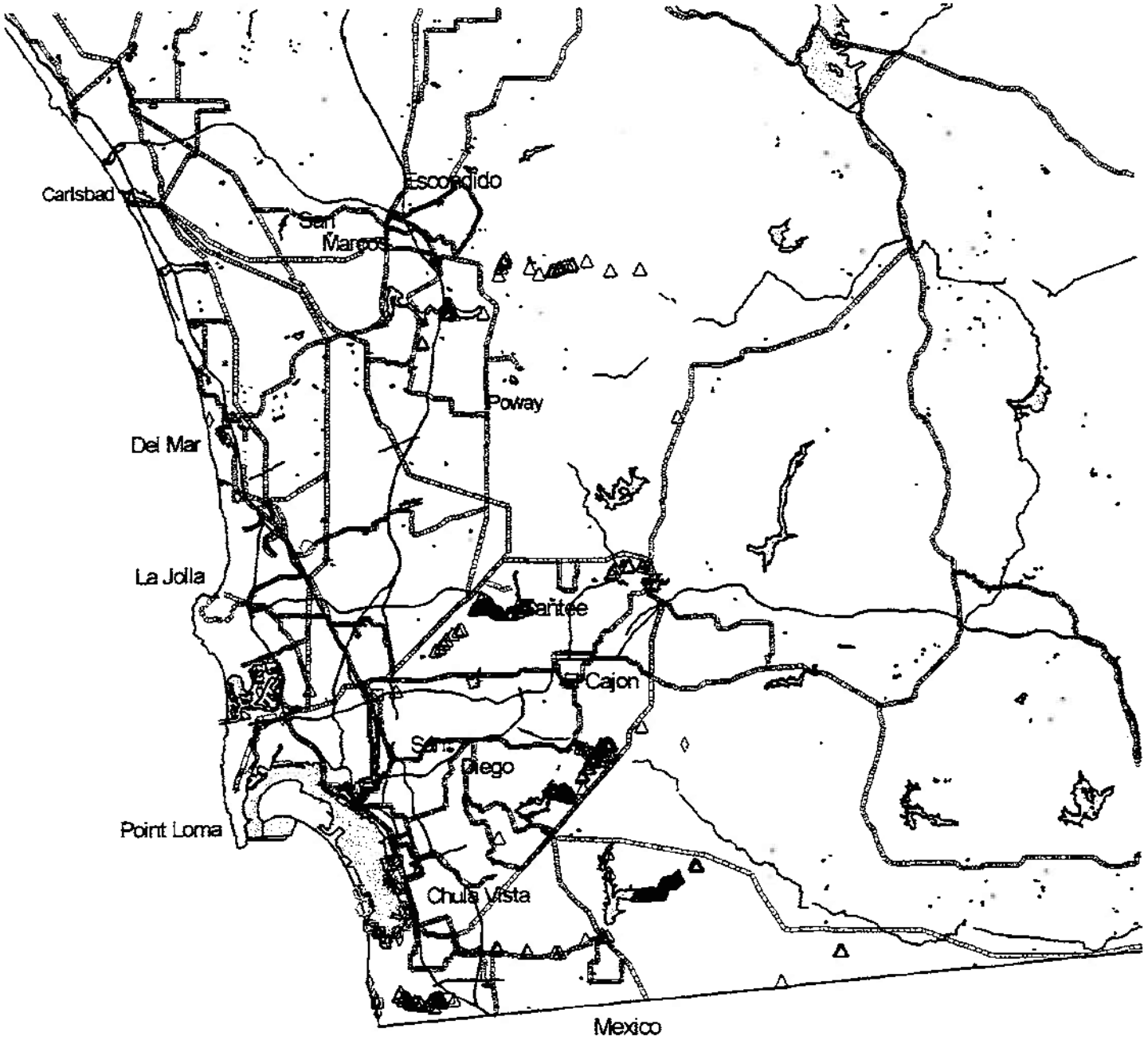
N

MSCP Selected Sensitive Plants (Figure 3.1g)
- San Diego Barrel Cactus
- SDG&E Major Transmission Lines
- Lakes
- Freeways
- San Diego County

FIGURE
3.1g

SDGE Subregional Natural Community Conservation Plan

SDG&E Subregional NCCP



10 0 Miles

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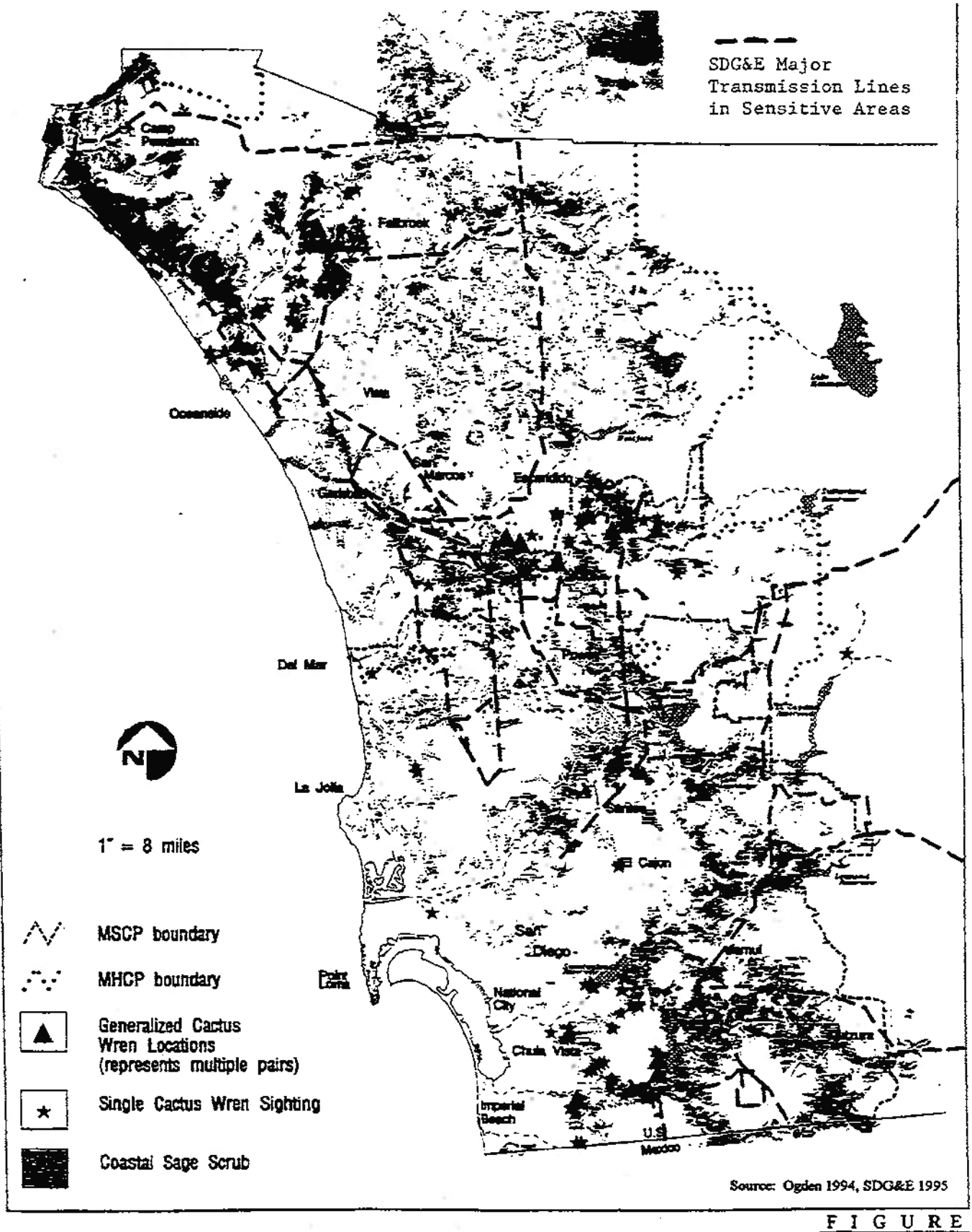
MSCP Selected Sensitive (Figure 3.1h)
- Light-Footed Clapper Rail
- Western Snowy Plover
- Least Bell's Vireo
- Belding's Savannah Sparrow
- SDG&E Major Transmission Lines
- Lakes
- Freeways
- San Diego County

N

FIGURE
3.1h

SDGE Subregional Natural Community Conservation Plan



FIGURE

3.1i

Known Distribution of Coastal Cactus Wren in San Diego County

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3.2 Impact Assessment

As a regional energy provider SDG&E has several roles. One of the roles is to be a developer. SDG&E must develop and maintain a region-wide network of gas and electric transmission, distribution and resource facilities. From the standpoint of capital investment, SDG&E is probably the largest developer in the SDG&E service territory.

Energy development, like all development, has impacts. However, it is important when reviewing this document that the reader does not confuse the impacts of energy development with typical commercial, industrial, and residential development. Typical development permanently removes large areas of native vegetation, changes the topography, and covers much of the developed area with impervious surfaces. Most of SDG&E's previous and future energy development occurs above or below the earth's surface with very small areas of permanent disturbance. Impacts from energy development include: narrow and unpaved access roads, habitat that continues to exist and grow in rights-of-way, energy facilities (except for generators) that are unoccupied and generate very little traffic, and little or no contribution to edge effects due to predatory pets or extensive human activity. Negative impacts which may occur are habitat fragmentation and provision of human access to remote areas leading to potential exotic species invasion and destruction of habitat.

Construction impacts associated with the development of energy facilities also have less impact than those of typical developments because (1) construction projects associated with development of energy facilities normally are completed over a period of days rather than months or years as with other development projects, and (2) construction activities

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themselves have less impact, for example, equipment and materials are often delivered by air, thereby minimizing ground disturbances.

Another significant difference between the development of energy facilities and typical development is that there is a greater degree of flexibility in siting and design when developing energy facilities. It is not to SDG&E's benefit to site and develop facilities in an environmentally insensitive manner. Doing so would not result in a measurable increase to company profits. Therefore, it is in the best interest of SDG&E, its rate payers, and shareholders for the company to adopt development and maintenance policies designed toward environmental protection and enhancement. SDG&E is also a resident of the service territory (has been for well over a century) and would like to continue to be a welcome one.

3.2.1 Take of Covered Species

SDG&E's Activities will likely result in the Take of Covered Species and impact their habitat when incidental to otherwise lawful activities and when conducted in full compliance with the terms and conditions of this Subregional Plan.

However, this Subregional Plan is intended to avoid incidents resulting in the Take of Covered Species whenever possible and to implement measures to minimize and mitigate any Take of Covered Species to the maximum extent possible. Events of Take occurring within the terms and conditions of this Subregional Plan will not appreciably reduce the likelihood of the survival and recovery of any Covered Species.

Take of certain Covered Species is to be avoided. (These species are indicated in the Covered Species Table 3.1.) Take authorizations for these so called narrow endemic species will be limited to emergencies and unavoidable impacts from repairs to existing facilities. For new projects, kill or injury of such animal species or destruction of such plants or their supporting habitat would not be covered by the Plan and Implementing Agreement.

3.2.2 Types of Take of Covered Species

3.2.1.1 Impacts to Individual Animals

The Take of protected individuals and impacts to other Covered Species will likely occur as a result of SDG&E's Activities. SDG&E's Activities, including its installation, use, maintenance and repair of its Facilities, are more fully described in Section 2. The Take of these individuals may occur in the form of harassment, death, or displacement.

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Of the aforementioned forms of Take of Covered Species and impacts to Covered Species, harassment may be the most common. Harassment of individuals of such species will occur as an unavoidable and unintentional consequence of conducting certain Activities and mitigation measures, such as human activity, the operation of machinery and equipment, and associated noise. Direct killing of or injury to individuals may result from their being struck by vehicles or equipment, or being crushed or trapped in their burrows. Displacement may occur when individual animals move away from long-term maintenance operations to surrounding areas and are forced to compete with animals in these areas for food and living space. Take of Covered Species due to these impacts will be eliminated, minimized or mitigated to the maximum extent possible utilizing the mitigation measures described in Section 7 of the Subregional Plan.

In certain situations, Take of certain species is authorized only under the rubric of operation and maintenance Activities. These situations typically involve potential impacts from Activities on endemic species having narrow ranges in areas *without* an approved regional conservation plan.

For example, Take of the Stephens' Kangaroo Rat (SKR) is only permitted for SDG&E in the Multiple Habitat Conservation Program (MHCP) planning area in northern San Diego County for operation and maintenance activities until the MHCP is approved. After that time, and provided that SKR is conserved within MHCP, Take for new construction Activities will be permitted under the terms of this Plan. This condition only applies to the SKR populations in San Diego County; Riverside County has an approved Take process and mitigation protocol. Furthermore, SDG&E's facilities in Riverside County already exist, and no new impacts are expected.

3.2.1.2 Impacts to Individual Plants

Areas known to contain Covered Species of plants have been delineated in preliminary sruveys for MSCP and MHCP and will be flagged to eliminate or reduce impacts during Activities in these areas. Impacts to individual plants will primarily result from urgent or emergency repair Activities. This Subregional Plan prescribes the implementation of mitigation measures such as specific restoration or reclamation. Unknown populations of Covered Species plants, naturally occurring or intentionally introduced, are expected to exist with the Subregional Plan Area and may also be impacted by SDG&E's Activities. Pre-activity

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surveys for Covered Species of plants will identify areas of potential impact, and implementation of the provisions for avoidance and/or revegetation as set forth in Section 7 of this Subregional Plan will reduce these impacts.

SDG&E's Geographic Information System (GIS) will contain sensitive species and habitat data to demonstrate sensitive working areas. The Environmental Surveyor will continue to add new data to GIS based on preactivity surveys.

Expansion of Miguel Substation:

SDG&E owns land within the boundaries of its Miguel Substation property adjacent to the Sweetwater Reservoir on which significant populations of Otay Tarplant *"Hemizonia conjugens"* are found. Expansion plans for the substation could threaten about 1,000 - 2,000 of the approximately 12,000 individuals of the Tarplant population on the SDG&E property. Due to the rapidly changing nature of the electric industry, it is impossible to predict with complete certainty how the substation will be expanded, or even if it will become necessary. SDG&E has committed that impacts to sensitive species like the Tarplant, however, will be avoided to the extent possible.

Figure 10a shows the existing footprint of the substation development areas, with the biological resources indicated adjacent to the substation pads. Also outlined is one expansion scenario, the configuration of which is largely determined by the geometry of the existing equipment. Any impacts to the Tarplant populations due to an expansion would be minimized to the extent possible. Should impacts be necessitated, they would be mitigated with the set aside of a nearby area of Tarplant within the Miguel Substation property at a ratio of 2:1. The remaining Tarplant would be retained for mitigation use at a later date.

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FIGURE **10a**

SENSITIVE FLORA

Hc	Otay Tarplant (*Hemizonia conjugens*)
Ac	California Adolphia (*Adolphia californica*)
Dv	Variegated Dudleya (*Dudleya variegata*)
Ja	Spiny Rush (*Juncus acutus* ssp. *leopoldii*)
Fv	San Diego Barrel Cactus (*Ferocactus viridescens*)
Vl	San Diego Sunflower (*Viguiera laciniata*)
Hp	Palmer's Grapplinghook (*Harpagonella palmeri*)

*Note: Subscript indicates Approx. # of Plants

POTENTIAL SUBSTATION PAD

EXISTING SUBSTATION PADS

1" = 400'

CITY OF CHULA VISTA
VICINITY MAP

SOUTH BAY PKWY
SWEETWATER RD
BONITA RD
CENTRAL AVE
SAN MIGUEL RD
SDG&E MIGUEL SITE
NO SCALE

SDG&E MIGUEL SUBSTATION SITE

Subregional Natural Community Conservation Plan

SDGE

3.2.2.2 Impacts to Habitat

SDG&E's Activities will likely result in some impacts to the habitats of Covered Species. Destruction of habitat, including blading or scraping, excavation, and erosion, along with fragmentation and human access to restricted areas, will likely occur in some areas as a result of SDG&E's Activities. Modification of habitat may reduce the prey base or other biological resources for Covered Species and thereby affect an individual's ability to survive. Implementation of the mitigation measures in Section 7.1 will avoid or reduce these impacts to the maximum extent possible.

3.2.2.3 Duration and Intensity of Impacts

The duration and intensity of impacts to Covered Species will vary depending on the location and type of Activity being conducted. Some Activities will result in occasional harassment to individuals while others may result in greater impacts such as the killing of individuals or permanent habitat loss within the Subregional Plan Area. These impacts may be expected to occur throughout the year and may occur within any or all of the Subregional Plan Area.

For example, Activities such as the installation, use, maintenance or repair of Facilities may cause temporary harassment of individuals, while grading and clearing of electric substation pads, gas facilities, or access roads may result in permanent disturbance. Most Activities will allow a majority of Covered Species to re-occupy habitat after the completion of installation, maintenance and repair of a Facility and during its use (e.g. transmission line).

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4 Land Use

This section of the Subregional Plan discusses existing and proposed land use activities and policies guiding SDG&E Activities within the Subregional Plan Area.

4.1 Existing Land Use Activities

Existing Land Uses
Existing land use activities on SDG&E owned property, easements, and rights-of-way include installation, operation, maintenance and repair of SDG&E Facilities.

Although a good portion of SDG&E's easements are located within urbanized areas, many large easement corridors cross through and connect biologically sensitive and diverse areas. In addition, a number of substation and gas regulator sites adjoin or contain valuable native habitats. This Subregional Plan addresses only property owned by SDG&E, SDG&E easements and rights-of-way, and Activities within biologically sensitive areas.

4.1.1 Electric Distribution Easement Corridors

These easements are typically 12' in width or narrower. Facilities consists of power poles located in the center of the easement with attachments such as guy anchors, circuit switches, stub and anchors, wires and communication cables. The total percentage of the above ground improvements in the easement area is less than 1% over an easement 200' in length. Access routes to these Facilities are not usually maintained, enabling the habitat to recover.

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4.1.2 Electric Transmission Easement Corridors

These easements are typically 20' in width or greater. Facilities may consist of power poles, two-pole structures, steel poles or lattice steel towers. 20'-wide corridors contain a single pole line, while corridors greater than 100' in width could contain as many as five individual transmission lines. Due to the greater span distance between structures, above ground improvements are approximately less than 5% of the easement area. Access to these improvements is normally provided via access roads.

4.1.3 Gas Transmission Easement Corridors

These easements are normally 40' in width or narrower. Above ground improvements are minor and consist of valve boxes, cathodic stations, pipeline identification markers and leak detection devices. Above ground improvements are approximately less than 1% of the easement area. Access to these improvements is provided via access roads.

4.1.4 Electric Substations and Gas Regulator Stations.

These Facilities are located along or at the terminus of transmission easement corridors and are usually surrounded by landscaped areas or as open space areas. It is essential for safe and reliable service that access roads be maintained in a condition which assures that these Facilities can be operated, as necessary, on a 24-hour basis.

4.2 Proposed Land Uses

Forecasting the need, location and exact nature of future energy projects is accomplished by interpreting the projected growth plans from the various local and regional agencies. SDG&E identifies future "load centers" based on the locations, densities, and types of growth indicated in general plans and population forecasts. The current system design of SDG&E's energy network is a response to those plans and forecasts. Many rights-of-way and substations were purchased with space for expansion in the interest of serving future "load centers" that could be predicted from agency plans.

Major preservation plans, currently being prepared under NCCP legislation, will affect the existing growth forecasts to the extent that significant shifts in load center size and location are expected. The results will dictate a reevaluation of the system design needed to serve this region. Some rights-of-way and substations that were intended for expansion may be fully utilized. Existing urban areas may now need to be served with additional utility improvements to accommodate development intensification.

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Therefore, SDG&E will not be able to accurately predict the extent of these "load center" shifts until the various preservation plans are completed and agencies modify their growth plans to reflect new patterns of growth and preservation. This Subregional Plan assumes that San Diego will continue to grow, but does not assume where the growth will occur. However, the plan does assume that growth will mean expansion of the energy system. The predictions pertaining to miles of gas and electric transmission lines, number of substations, and amounts of other energy facilities have been based on historical data.

Each new SDG&E project will be subject to CEQA and, if there is federal involvement, NEPA. Exact impacts and mitigation will be determined at that time. At this time, the plan only estimates disturbances to habitat based on past experiences. However, those preparing this plan have estimated that more mitigation than is necessary is being provided to prevent a shortfall as projects are needed.

This Subregional Plan may be amended by SDG&E when General Plans in the region are updated. At that time, the company can better predict what kinds of facilities will be needed and where to serve future growth areas.

In a limited number of cases, there are existing transmission corridors capable of accommodating additional electric and gas transmission facilities. These transmission corridors are shown in fluorescent green on Figure 11a. The vacant positions in Orange County are attached as Figure 11b.

4.3 Projected Grading Disturbances

SDG&E has estimated a total of 124 acres of both temporary and permanent grading disturbances over the next 25 years. Section 4.4 discusses how this calculation was made. It is important to note that not all of this acreage disturbance would occur within habitats considered native, sensitive, or slated for protection. Nevertheless, this estimate should be considered valid because it covers both native and disturbed areas, and as a result reflects the worst case scenario. Specific estimates of native habitat disturbances can only be quantified through individual review of each SDG&E Activity just prior to its occurrence.

4.4 Methodology for Estimating Grading Disturbance

The estimate for total grading disturbances was based on projecting 7 typical SDG&E activities over the course of 25 years. Estimates of individual grading disturbances were based on previous experiences by SDG&E.

4.4.1 New Substations

Approximately 8 acres of permanent grading disturbances may result from the construction of four new electric distribution substations. Of the

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estimates provided, this is the only one in which grading disturbance over native habitat is probable. Individually, each substation could impact 2 acres of habitat.

The typical substation site is 4.5 acres in size. Of this amount, up to 2 acres accommodate improvements for substation transformers, control house racks, fencing, roads, and transmission feed structures. The remaining land is devoted to setbacks, landscaping, open space access, and fire breaks where required. Figure 12 depicts the typical layout for each substation.

4.4.2 New Electric Transmission Lines Requiring New Rights-of-Way

Approximately 35 acres of grading disturbances may result from the construction of 7 new transmission lines. This acreage amount is the result of each new line requiring an entirely new right-of-way corridor and associated access road system. The above figure represents the aggregate of two different types of new transmission lines. Each type is described as follows:

- New electric transmission, steel: 3 new transmission lines would be supported by either steel lattice towers or steel poles. Each new line would typically require a new right-of-way 100' in width and 4 miles in length. Each would begin and terminate at different substations or at existing transmission lines. Typical ground disturbances for each line would include grading 18 structure sites (25' x 100' each), 2.4 miles of 12' wide access road and 2 temporary wire pulling pads (50'x 200' each). Figure 13 depicts this configuration.

- New electric transmission, wood: 4 new transmission lines would be supported by wood poles. Each new line would typically require a new right-of-way 100' in width and 4 miles in length. Each would begin and terminate at different substations or at existing transmission lines. Typical ground disturbances for each line would include grading 60 structure sites (20' x 20'), 2.4 miles of 12' wide access roads and 4 temporary wire pulling pads (50' x 200' each). Figure 14 depicts this configuration.

  Note: New access roads do not typically traverse the entire right-of-way because of impassable terrain and the use of existing access roads.

4.4.3 New Electric Transmission Lines Within Existing Rights-of-Way

Approximately 23 acres of grading disturbances may result from the construction of 10 new transmission lines placed within existing rights-of-way. This acreage amount is the result of each new line be able to utilize existing access road infrastructure. The above figure represents the

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aggregate of two different types of new transmission lines placed within existing rights-of-way. Each type is described as follows:

- New electric transmission, steel: 4 new transmission lines would be supported by either steel lattice towers or steel poles. Each new line would typically utilize an existing right of way that is 100' in width and 4 miles in length. Each would begin and terminate at different substations or at existing transmission lines. Typical ground disturbances for each line would require the grading of 18 structure sites (25' x 100' each), .57 miles of 12' access roads and 2 temporary wire pulling pads (50' x 200' each). Figure 15 depicts this configuration.

- New electric transmission, wood: 6 new transmission lines would be supported by wood poles. Each new line would utilize an existing right-of-way that is 100' in width and 4 miles in length. Each would begin and terminate at different substations or at existing transmission lines. Typical ground disturbances for each line would include grading 60 poles sites (20' x 20' each), .57 miles of 12' wide access roads and 4 temporary wire pulling pads (50' x 200'). Figure 16 depicts this configuration.

  Note: New access roads do not typically traverse the entire right-of-way because of impassable terrain and the use of existing access roads.

4.4.4 Transmission Line Reconductoring

Approximately 11 acres of grading disturbances may result from the reconductoring (replacement of wire) of 16 existing transmission lines. Most of this disturbance is the result of creating pulling pads for wire spool trucks. The above figure represents the aggregate of two different types of transmission lines. Each type is described as follows:

- Transmission Line Reconductoring, steel: 8 transmission lines supported by steel lattice towers or steel poles may be reconductored. Each line would typically be within an existing right-of-way 100' in width and 4 miles in length. Each would begin and terminate at different substations or existing transmission lines. No new access roads or tower sites would be required. Typical ground disturbances for each line would be limited to temporary establishment of 2 wire pulling sites (50' x 200' each). Figure 17 depicts this configuration.

- Transmission Line Reconductoring, wood: 8 transmission lines supported by wood poles may be reconductored. Each line would be within an existing rights-of-way 100' in width and 4 miles in length.

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Each would begin and terminate at different substations or at existing transmission lines. No new access roads or poles sites would be required. Typical ground disturbances for each line would include establishment of 4 wire pulling (50' x 200' each). Figure 18 depicts this configuration.

4.4.5 Individual Minor Repairs, Overhead Electric Transmission or Distribution

Approximately 20 acres of grading disturbances may result from 240 various minor operational construction and maintenance repairs. Generally, these activities will occur within existing rights-of-way that contain both electric distribution and transmission facilities.

A typical example of an incident might be the replacement of a wooden power pole knocked over by high winds. Repair requirements would require grading to accommodate a new access road (150' x 12') to the site and temporary construction pad (40' x 40') for repair and installation of the replacement pole. Figure 19 depicts the typical configuration of an individual repair incident.

4.4.6 Gas Line Repairs

Approximately 19 acres of grading disturbances may result from 3 types of gas line repairs involving leaks, erosion and relocations. The above acreage is an aggregate of 3 types of repairs described as follows:

- Gas Line Leak Repair: 5 leak repair incidents are projected. Construction crews would excavate an area around the pipe so that a sleeve could be placed over the leak. The typical trench would be 10' x 100' and would be surrounded by a temporary construction area of 50' x 200'. Figure 20 depicts the typical configuration of an individual leak repair incident.

- Pipeline Relocation: 2 relocations are projected. Relocations due to pipeline failure are rare. A new pipeline alignment and necessary construction equipment would require a temporary construction area of 50' x 300'. Figure 21 depicts the typical configuration of an individual pipeline relocation.

- Gas Line Erosion Repair: 25 repair incidents are projected. These repairs are usually the result of streams eroding the earth from around pipelines and leaving them dangerously exposed. Typical improvements require an area of 50' x 100' so that unwanted fill material can be removed and replaced with recompacted material, erosion control blankets and or protective rip rap rock. An additional

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temporary construction area of 150' x 200' would surround the improvement area and would be used for grading equipment, trenching machines, cranes, crew trucks and storage. Figure 22 depicts the typical configuration of an individual gas line erosion repair.

4.4.7 New Gas Transmission

Approximately 8 acres of grading disturbances may result from the construction of one or more new gas transmission lines. This acreage amount is the result of the need for entirely new right-of-way corridor and associated road system.

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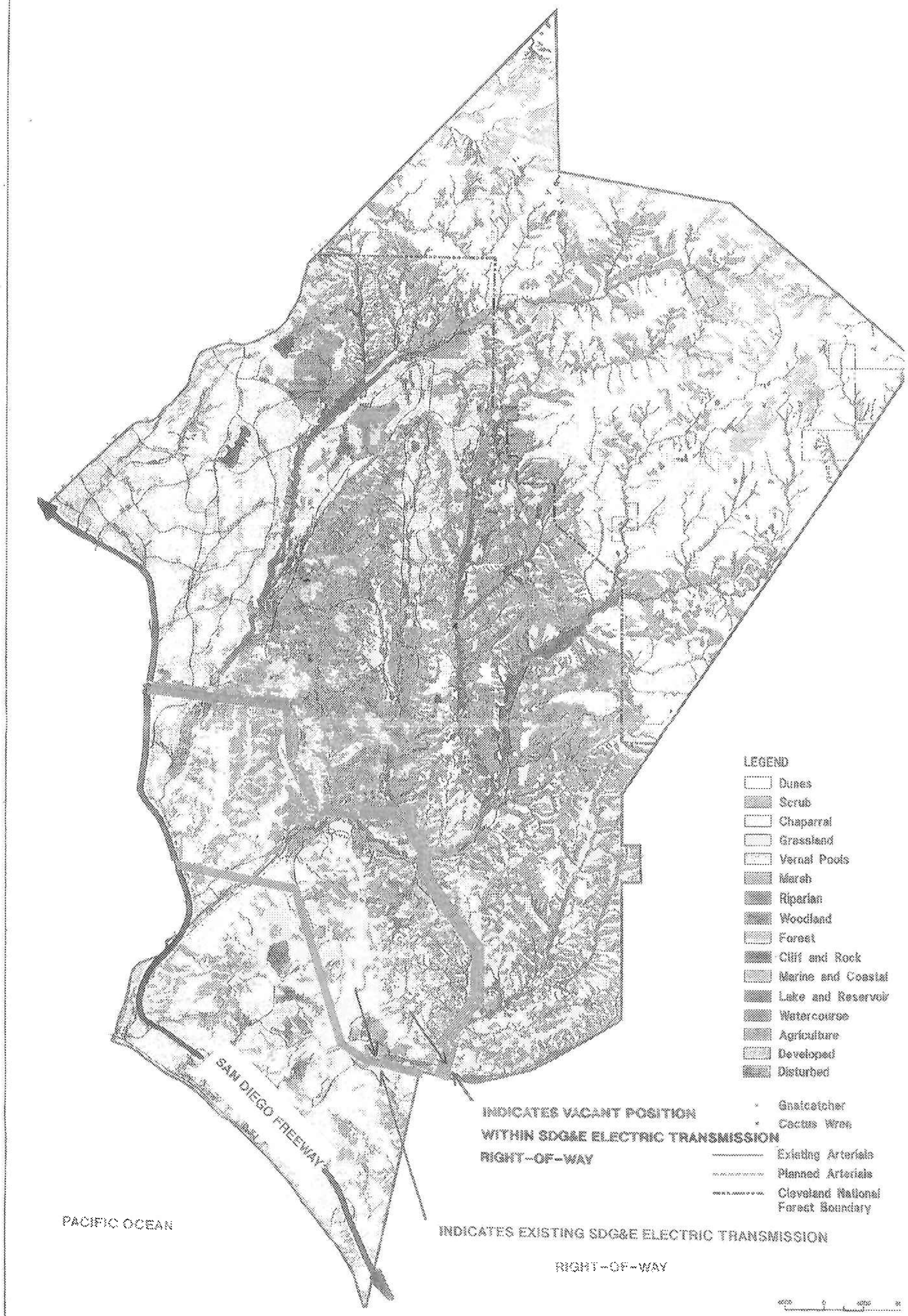
SDG&E Electric Transmssion System Vacant Positions in Transmission Corridors

Green Lines Are Vacant Positions

FIGURE 11a



SDG&E Electric Transmission System Vacant Positions in Transmission Corridors (Orange County)

FIGURE 11b

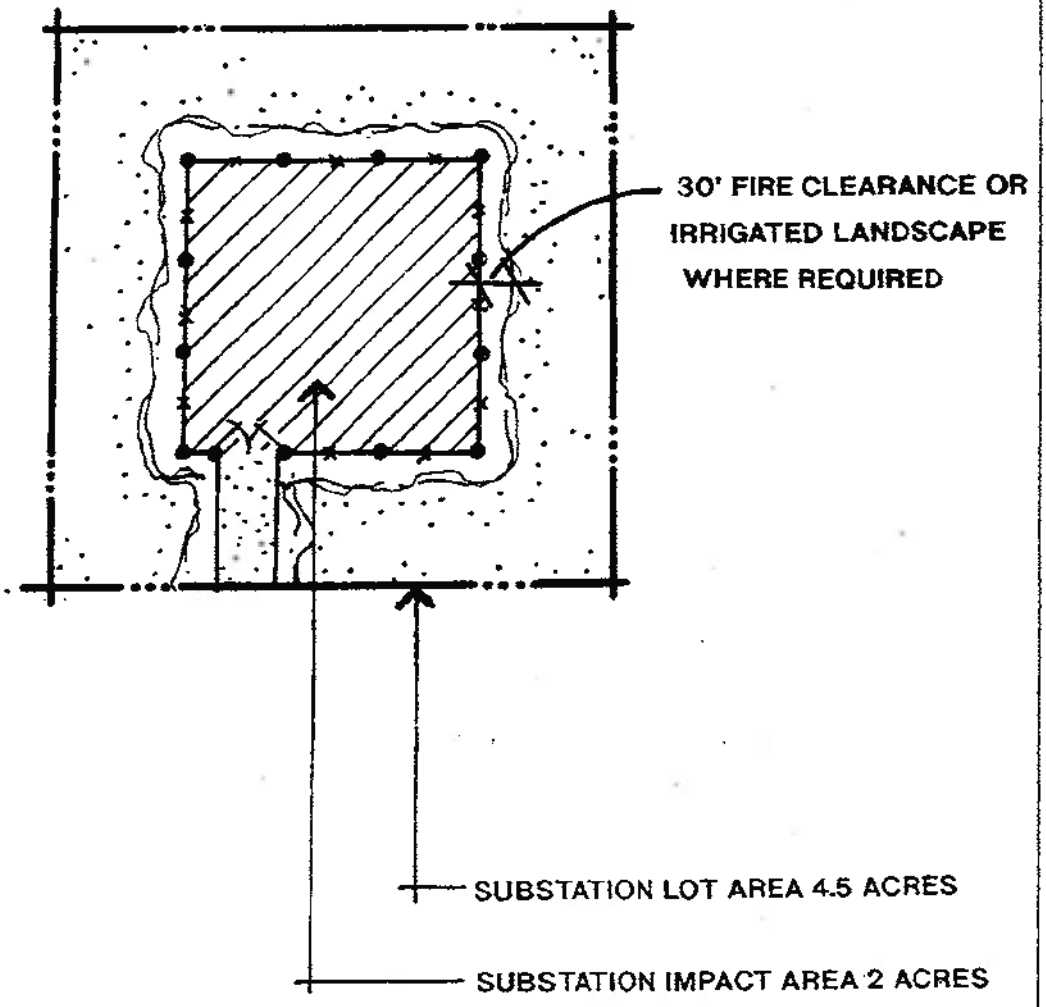


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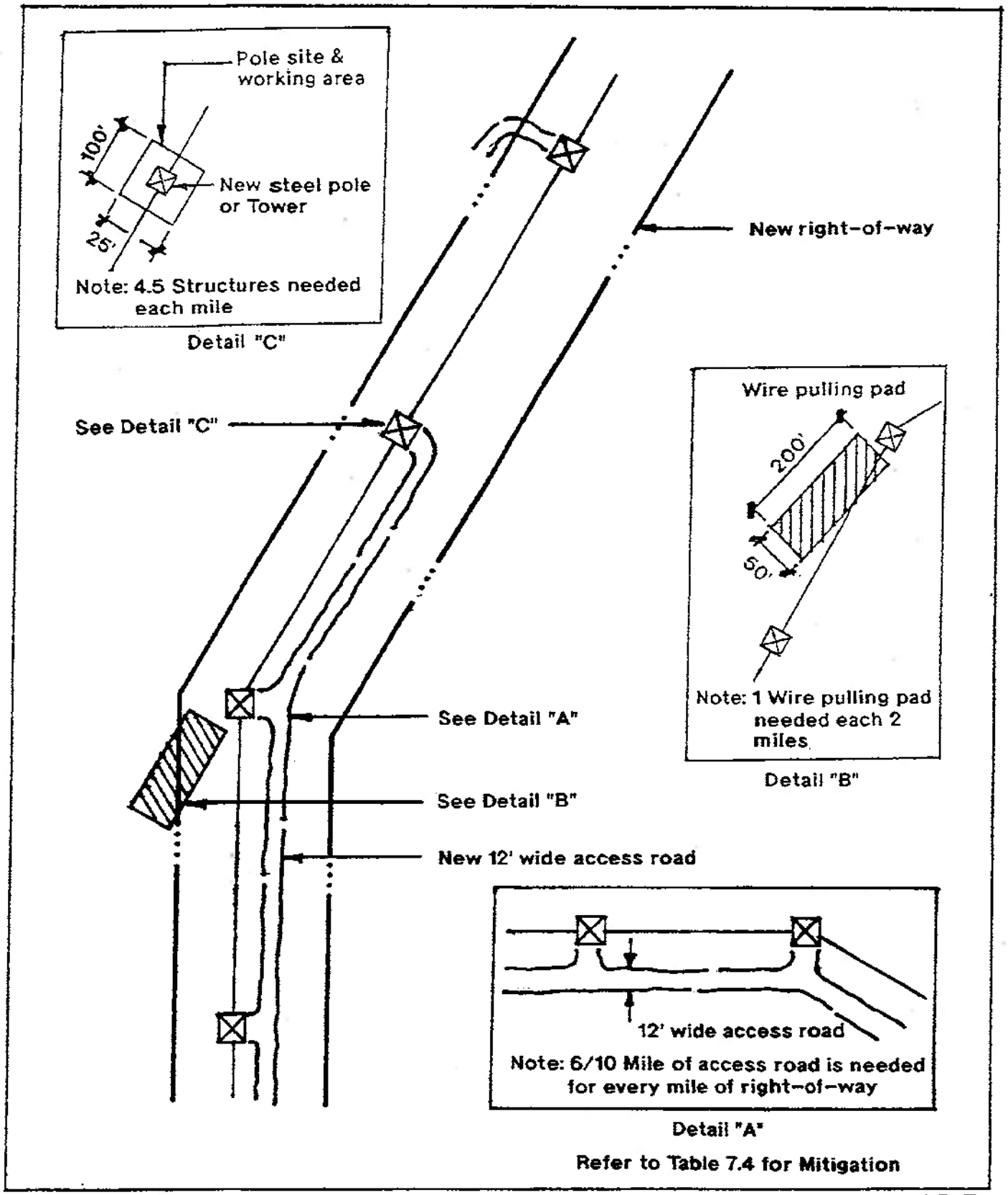
FIGURE

Typical Substation Impact Diagram

12



Typical New Electric Transmission Line Requiring New R/W (Steel) Impact Diagram

FIGURE 13

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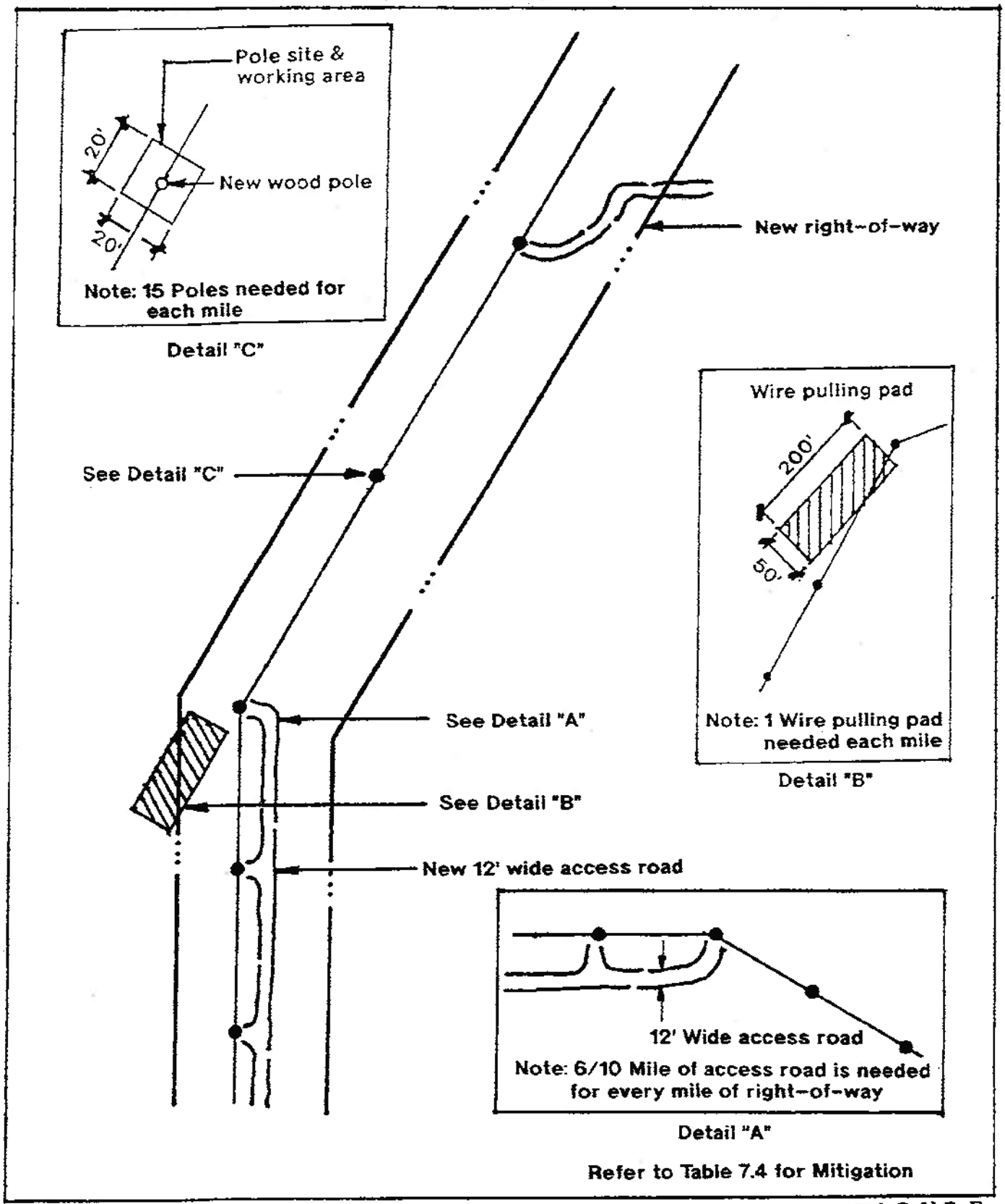

Typical New Electric Transmission Line Requiring New R/W (Wood) Impact Diagram

FIGURE **14**

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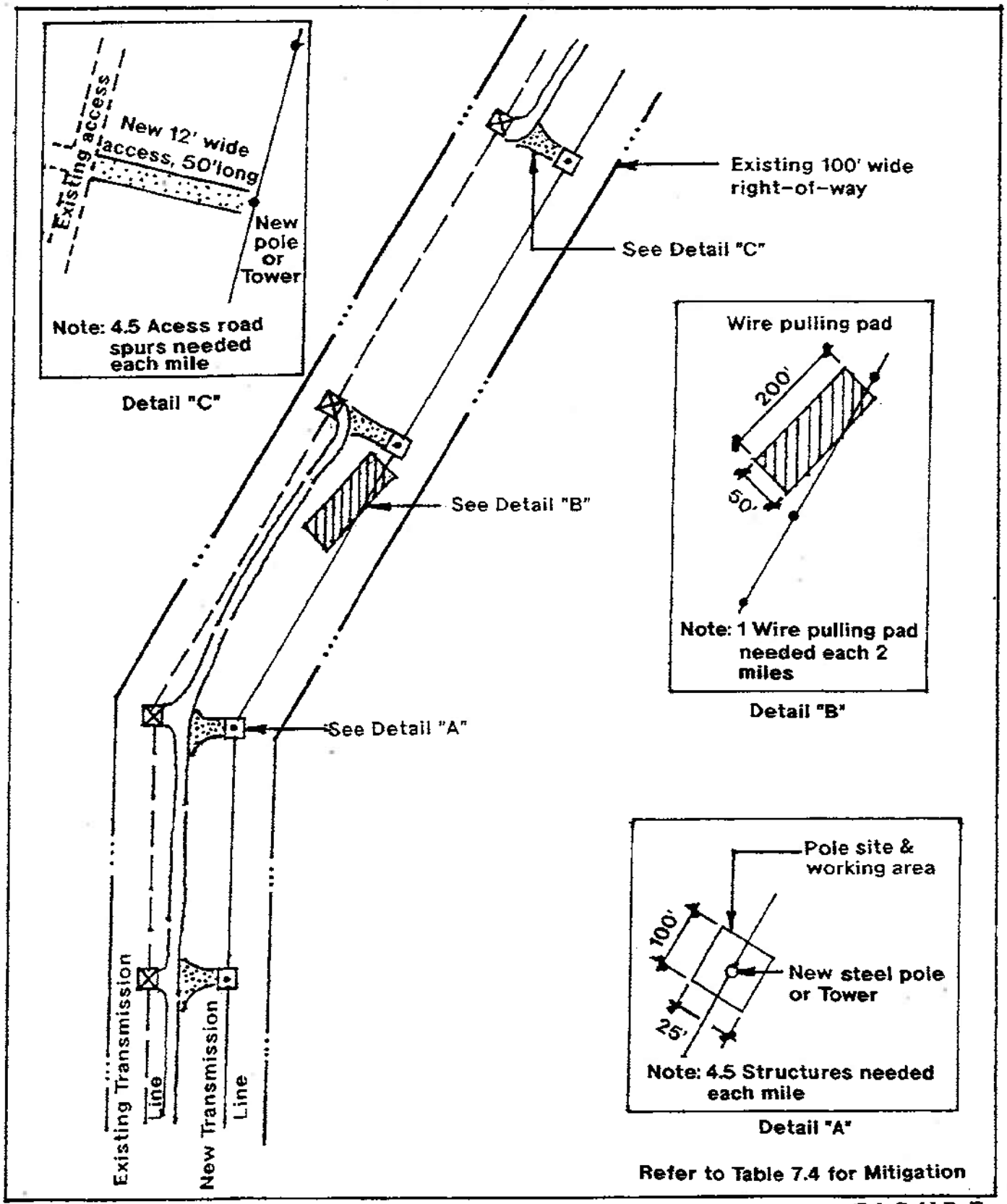

Typical New Electric Transmission Line in Existing R/W (Steel) Impact Diagram

FIGURE 15

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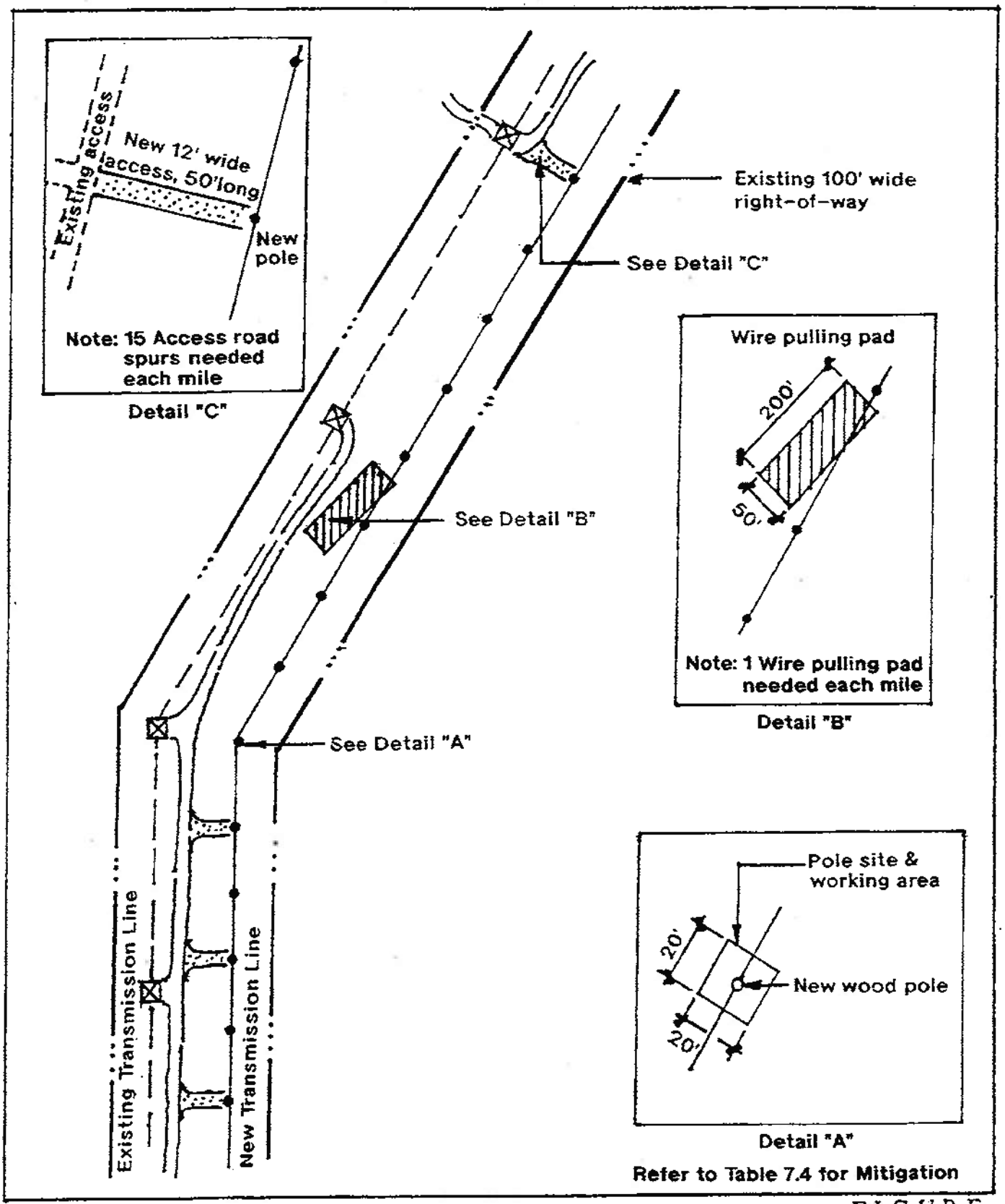

Typical New Electric Transmission Line in Existing R/W (Wood)

Impact Diagram

FIGURE **16**

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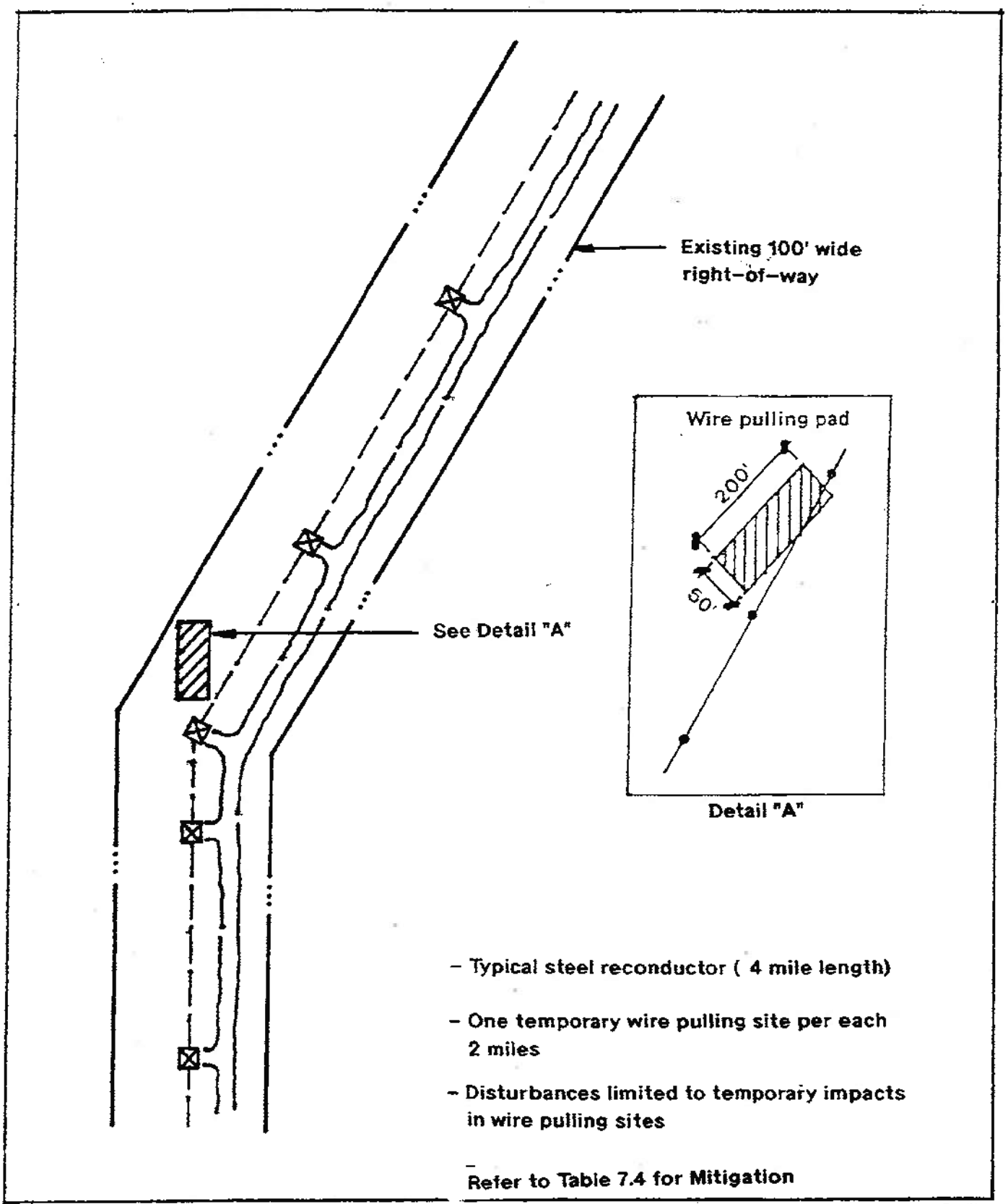

Typical Electric Transmission Reconductor
in Existing R/W (Steel)
Impact Diagram

FIGURE
17

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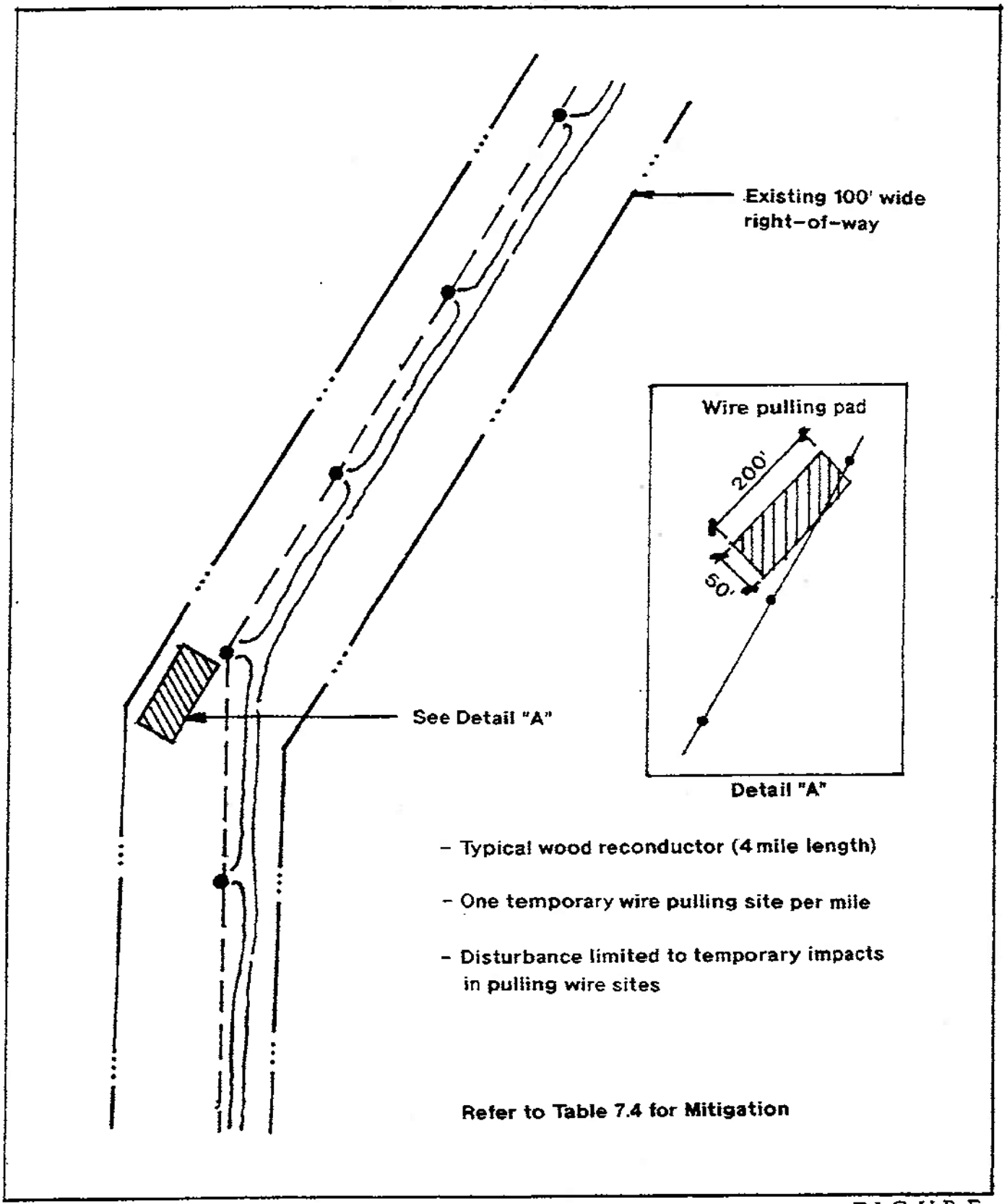

Typical Electric Transmission Reconductor in Existing R/W (Wood) Impact Diagram

FIGURE **18**

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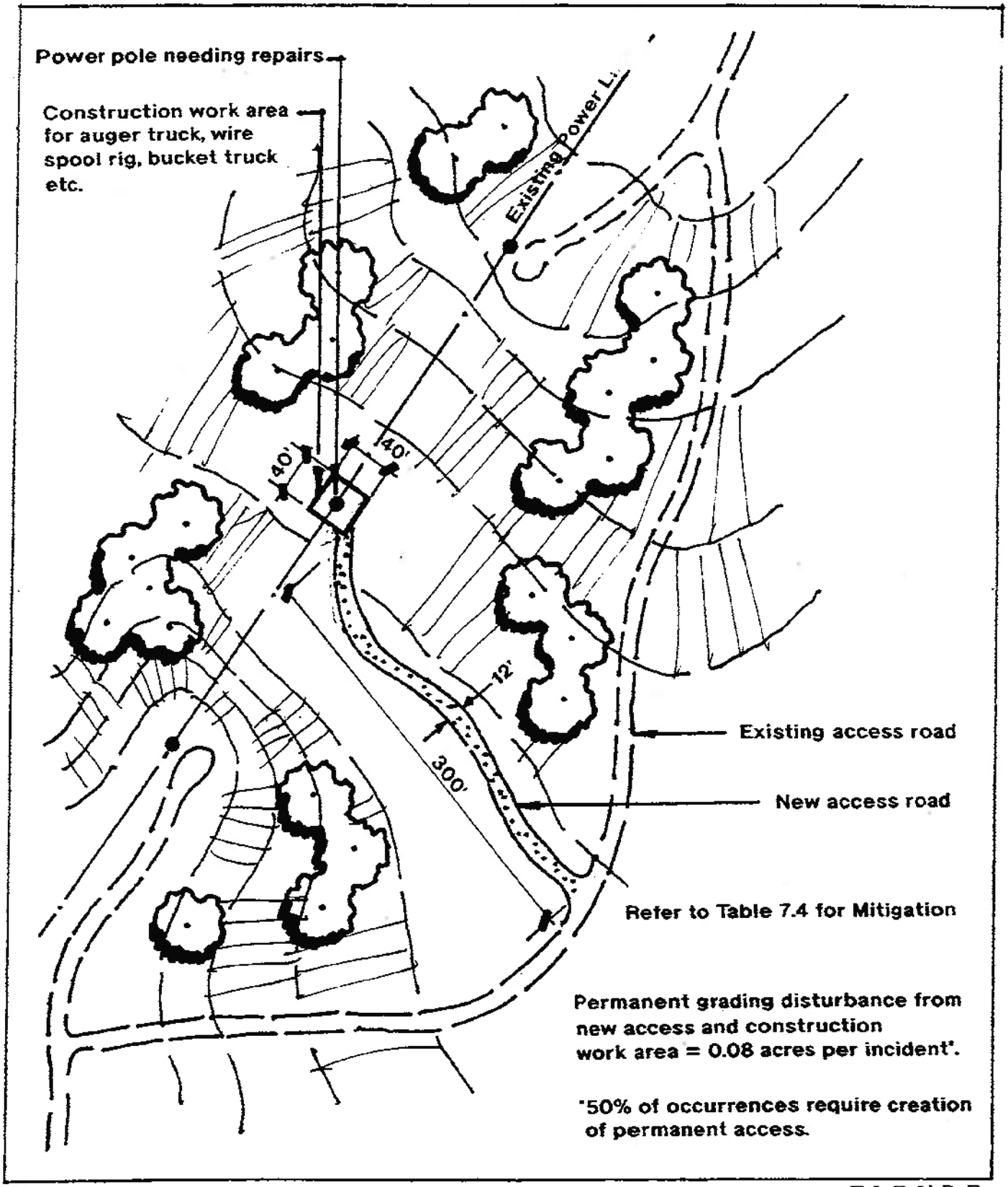

FIGURE

19

Typical Electrical Transmission or Distribution Repairs Impact Diagram

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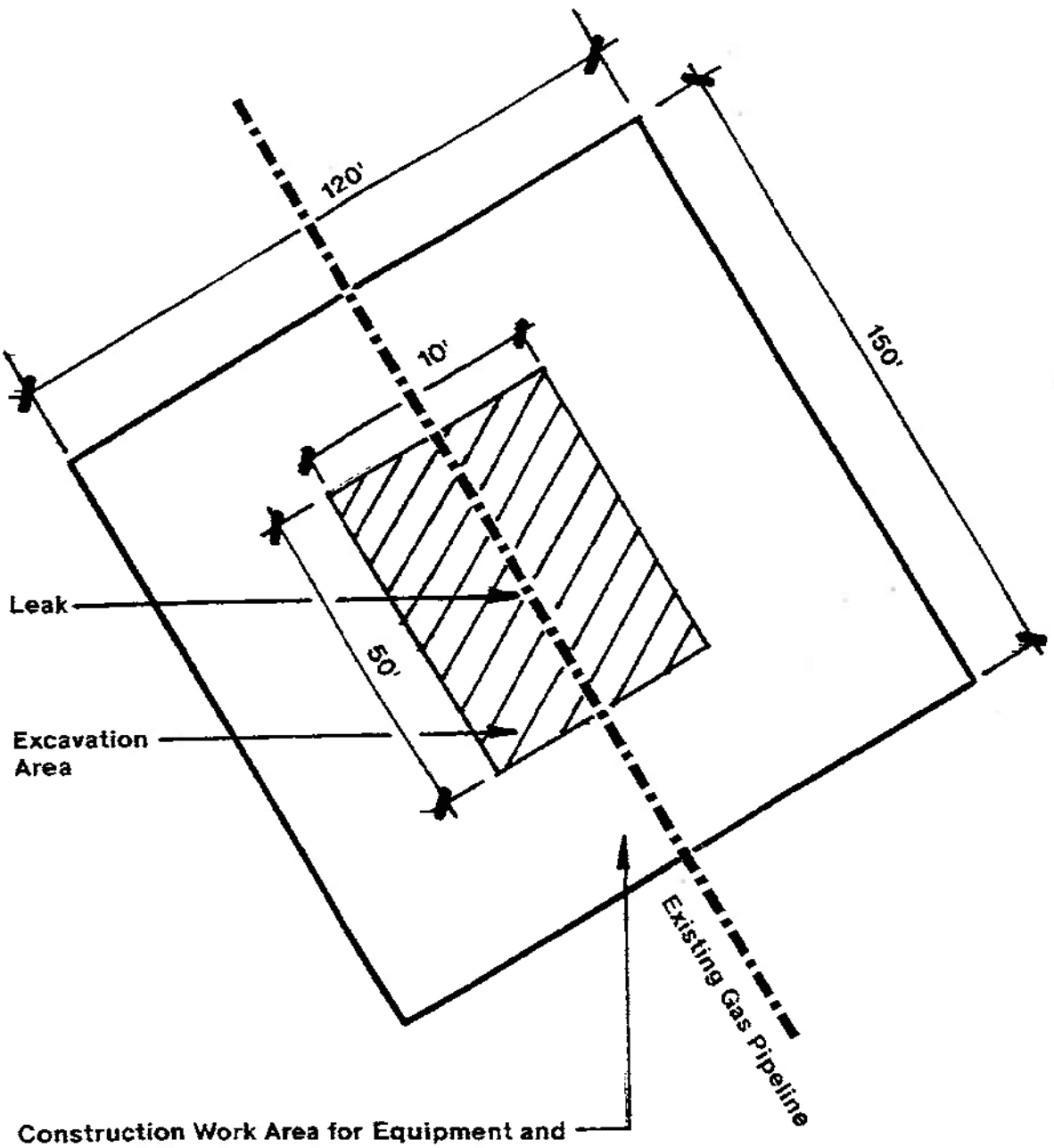

Refer to Table 7.4 for Mitigation

FIGURE 20

Typical Corrective Action to Repair Gas Pipeline Leak Impact Diagram

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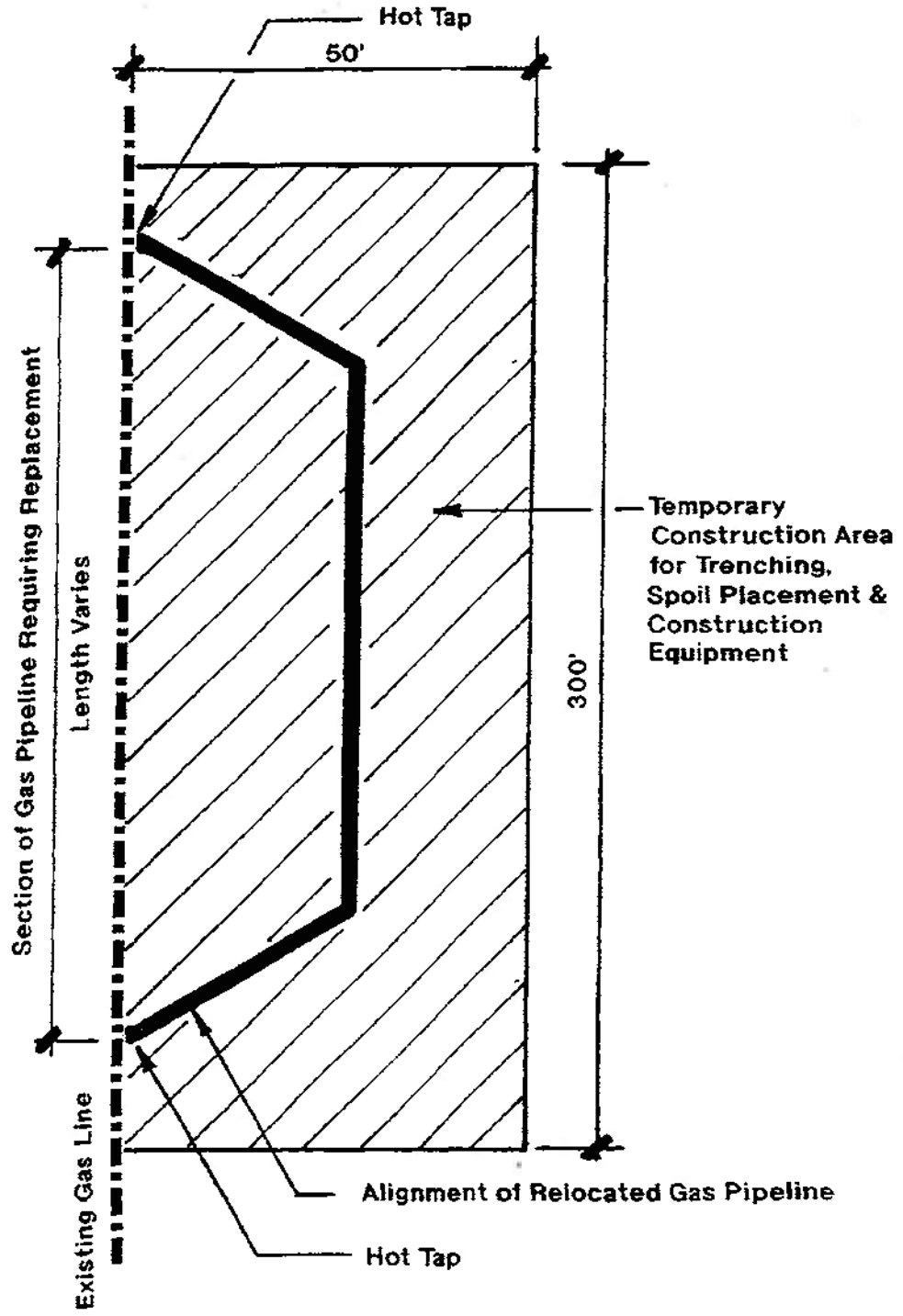

Refer to Table 7.4 for Mitigation

FIGURE 21

Typical Gas Pipeline Relocation Impact Diagram

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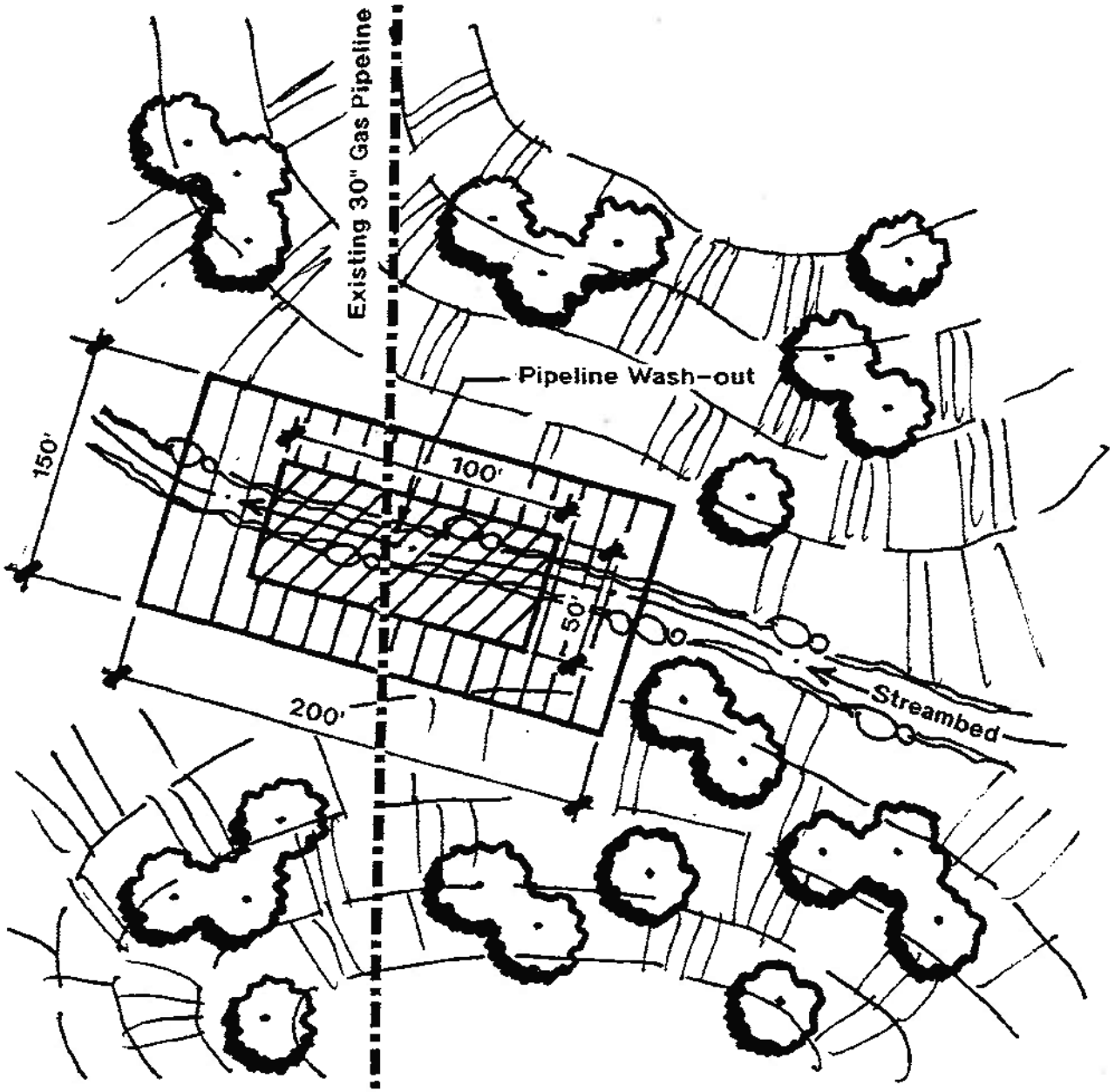

Typical Corrective Streambed Repair to Protect Gas Pipeline Impact Diagram

FIGURE 22

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5 Relation to Other Regional Habitat Conservation Plans

As of early 1995, a number of subregional and subarea comprehensive habitat and multiple species conservation plans proposed in southern California by various local governments, local bodies, and private entities are nearing the implementation phase of their plans. Included among these plans are the Multiple Species Conservation Plan generated as a part of San Diego's Clean Water Program, San Diego Association of Governments (SANDAG's) Multiple Habitat Conservation Program, the South Orange County NCCP Subregional Plan, the Riverside County Habitat Conservation Plan, and the County of San Diego's Multiple-Habitat Conservation and Open Space Plan. With limited exceptions relating to Preserve Areas in such plans, as described in Section 6, and certain threatened or endangered species with highly restricted habitat as described in Section 3, this Subregional Plan will be fully implemented independent of such other plans.

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6 SDG&E Activities Within Habitat Conservation Plan Preserves

Activities Within Preserve Areas

As generally described in Section 2 of this Subregional Plan, SDG&E Activities will include the maintenance, repair, and replacement of existing Facilities as well as the installation, maintenance, repair, and replacement of new Facilities. Existing Facilities are and new Facilities may be expected to be, in part, located within established Preserve Areas of Habitat Conservation Plans (HCPs), state, federal, or local preserve areas including public and private lands or other areas set aside for the protection of plants and animals. SDG&E's Activities, particularly those related to new Facilities, are responsive to the growth and service needs of SDG&E customers within the Subregional Plan Area. However, SDG&E is not able to predict with any reasonable degree of certainty what the growth and service needs of its customers will be during the term of this Subregional Plan or what Facilities will be needed to meet those needs.

As a part of its efforts to coordinate the implementation of this Subregional Plan with any effective HCP which may be affected by SDG&E Activities, the following agreements will be adhered to for Activities occurring or proposed to occur in preserve areas.

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6.1 Maintenance, Repair, and Replacement of Existing Facilities

Without ... her authoriz: ion from USFWS or CDFG, SDG&E may conduct all necessary maintenance, repair, and replacement Activities with respect to all existing Facilities which are now or may hereafter be located within a Preserve Area of an HCP, if conducted in accordance with the provisions of this Subregional Plan.

6.2 Installation, Maintenance, Repair, and Replacement of New Facilities

6.2.1 New Gas and Electric Transmission Facilities

As a result of the extensive, rapid, and continuing development within the Subregional Plan Area, existing and proposed Preserve Areas are or will be dispersed among and in some cases surrounded by developed areas. USFWS and CDFG recognize that as a public utility SDG&E is obligated to provide safe, reliable, efficient, and cost-effective electric and gas service throughout the developed area of its service territory in compliance with the Public Utilities Code and subject to the jurisdiction of the California Public Utilities Commission. Unavoidably, therefore, the construction of new electric and gas transmission Facilities through or within Preserve Areas will be necessary in certain circumstances to meet the service requirements of developing areas. Where SDG&E determines that new electric or gas transmission Facilities are necessary within part of a Preserve Area, it will coordinate with USFWS and CDFG in accordance with the procedure set forth below to plan and construct such new Facilities in a manner which avoids or minimizes any impacts to Covered Species and their habitat, to the extent possible, while not impairing SDG&E's ability to meet the service demands of its customers in accordance with its responsibilities as a public utility.

Whenever SDG&E determines that it is necessary to install a new electric transmission line, or electric substation, or to install a new gas transmission line, or gas regulator station in any part of a Preserve Area, SDG&E shall provide USFWS and CDFG with written notice of its intent to install such Facilities which shall contain a detailed description of such Facilities and of their location, along with a map of the area. At a minimum, the information contained on the pre-activity survey form is required. USFWS and CDFG may request a tour of the proposed site and a staff meeting to discuss it. Within twenty (20) working days of its receipt of SDG&E's notice, USFWS and CDFG shall provide SDG&E with their written response setting forth any objections to and alternatives to the location of the Facilities within the Preserve

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Area. Within ten (10) working days of receiving the objections of USFWS of CDFG, or both, SDG&E shall provide USFWS and CDFG with its written reply to their response. Within ten (10) working days of receiving the SDG&E reply, USFWS and CDFG shall approve or deny SDG&E's proposed location for the Facilities within the Preserve Area. If no objections are received by SDG&E from USFWS or CDFG within twenty (20) working days of SDG&E's notice, USFWS and/or CDFG shall be deemed to have concurred with the Activity described in SDG&E's original notice. If USFWS and CDFG denies the location, SDG&E may, within ten (10) working days of receiving such denial appeal to a review panel consisting of Regional Director, USFWS, Director, CDFG, and SDG&E, whose decision shall be final for purposes of this Subregional Plan. The appeal conference must be held within twenty (20) working days.

6.2.2 New Gas and Electric Distribution Facilities

The project proponent, other than SDG&E, that is requesting the extension of distribution facilities to serve his/her project shall obtain approval of said extension of facilities as part of their overall project approval.

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7 Mitigation

The basic formula for addressing the impacts of SDG&E Activities in sensitive resource areas is first to attempt to avoid impacts to Covered Species and their habitats, second to minimize necessary impacts to Covered Species to the extent feasible, and third to mitigate for those unavoidable impacts. The biological mitigation for anticipated impacts of SDG&E Activities takes three forms:

- SDG&E agrees to conduct Activities in an environmentally sensitive manner in accordance with adopted Operational Protocols.

  SDG&E's Operational Protocols are behavioral and construction techniques which, when employed in the field, represent an environmentally sensitive approach to construction and maintenance. The protocols are primarily based upon impact avoidance and minimization and recognize that often minor adjustments during planning, construction, or maintenance activities can yield major benefits to the environment. Operational Protocols are discussed in detail in Section 7.1.

- SDG&E agrees to allow certain fee-owned rights-of-way to be used for wildlife and habitat preservation.

  SDG&E will restrict the use and development of certain land owned by SDG&E underlying specific electric transmission facilities and otherwise comprising a part of SDG&E electric transmission rights-of-way, which contain habitat, connect fragmented habitat areas, or which may contribute to the habitat carrying capacity of Preserve Areas managed as a part of other conservation plans. SDG&E will restrict the use and development of such land to SDG&E's utility activities as described in this Subregional Plan through a prohibitory easement granted in favor of USFWS and

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CDFG, as more fully described in Section 7.3 of this Subregional Plan and subject to the terms and conditions of the Implementing Agreement.

- SDG&E agrees to cause the conveyance of certain high quality habitat land to USFWS, CDFG, or their designee, as further mitigation measure for unavoidable impacts to Covered Species or their habitat as a result of Activities covered by the Subregional Plan. These lands will comprise the SDG&E Mitigation Credits. Mitigation Credits will be reduced as they are used for mitigation in accordance with the ratios set forth in Section 7.4. The amount of Mitigation Credit to be conveyed has been predicted for the initial term of this Subregional Plan (25 years) based upon the expected impacts to habitat which will result from the Activities covered by the Subregional Plan, as more fully described in Section 4. The use of Mitigation Credits will not be necessary where habitat enhancement measures have been successful as a mitigation measure.

  Mitigation Credits which are unused at the expiration or termination of the Subregional Plan shall remain available for utilization, as appropriate, as mitigation for any project or action which may be required under CEQA, NEPA, or other environmental or natural resource law, as more fully described in the Implementing Agreement.

As more fully described in the Implementing Agreement, USFWS, CDFG, and SDG&E agree that, absent Unforeseen Circumstances, the mitigation measures provided in this Subregional Plan constitute the only mitigation measures that shall be required for any activity covered by the Subregional Plan where it results in an impact to a Covered Species or its habitat.

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7.1 Operational Protocols

Operational protocols represent an environmentally sensitive approach to traditional utility construction, maintenance and repair Activities recognizing that slight adjustments in construction techniques can yield major benefits for the environment. The appropriate Operational Protocols for each individual project will be determined and documented by the Environmental Surveyor. The information regarding the qualifications and responsibilities of the environmental surveyor is contained in Appendix B. The following mitigation measures shall be adhered to by SDG&E.

7.1.1 General Behavior for All Field Personnel

1. Vehicles must be kept on access roads. A 15 mile-per-hour speed limit shall be observed on dirt access roads to allow reptile species to disperse. Vehicles must be turned around in established or designated areas only.

2. No wildlife, including rattlesnakes, may be harmed, except to protect life and limb.

3. Firearms shall be prohibited on the rights-of-way except for those used by security personnel.

4. Feeding of wildlife is not allowed.

5. SDG&E personnel are not allowed to bring pets on the rights-of-way in order to minimize harassment or killing of wildlife and to prevent the introduction of destructive domestic animal diseases to native wildlife populations.

6. Parking or driving underneath oak trees is not allowed in order to protect root structures except in established traffic areas.

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7. Plant or wildlife species may not be collected for pets or any other reason.

8. Littering is not allowed. SDG&E shall not deposit or leave any food or waste on the rights-of-way or adjacent property.

9. Wild Fires shall be prevented or minimized by exercising care when driving and by not parking vehicles where catalytic converters can ignite dry vegetation. In times of high fire hazard, it may be necessary for trucks to carry water and shovels, or fire extinguishers in the field. The use of shields, protective mats, or other fire prevention methods shall be used during grinding and welding to prevent or minimize the potential for fire. Care should be exhibited when smoking in natural habitats.

10. Field crews shall refer environmental issues including wildlife relocation, dead or sick wildlife, hazardous waste, or questions about avoiding environmental impacts to the Environmental Surveyor. Biologists or experts in wildlife handling may need to be brought in by Environmental Surveyor for assistance with wildlife relocations.

7.1.2 Training

11. All SDG&E personnel working within the project area shall participate in an employee training program conducted by SDG&E, with annual updates. The program will consist of a brief discussion of endangered species biology and the legal protections afforded to Covered Species; a discussion of the biology of the Covered Species protected under this Subregional Plan; the habitat requirements of these Covered Species; their status under the Endangered Species Acts; measures being taken for the protection of Covered Species and their habitats under this Subregional Plan; and a review of the Operational Protocols. A fact sheet conveying this information will also be distributed to all employees working in the project area.

12. Designated SDG&E staff will conduct selected reviews of SDG&E operations. Any proposed modifications to Operational Protocols, procedures or conditions will be promptly provided to CDFG and USFWS for their review and input for required permit or Subregional Plan amendments.

7.1.3 Preactivity Studies

13. The Environmental Surveyor shall conduct preactivity studies for all activities occurring off of access roads in natural areas. The scope of these studies is included in Appendix A. The Environmental Surveyor will complete a preactivity study form contained in Appendix A, including recommendations for review by a biologist and construction monitoring as appropriate. Biologists should be called in when there is the potential for unavoidable impacts to Covered Species. The forms are for information only, and will not require CDFG or USFWS approval. These forms shall be faxed to CDFG and USFWS, along with phone notification, who will reply within 5 working days, indicating if they would like to review the project and/or suggest recommendations for post project monitoring. If a biologist is required, he/she will be contacted concurrent to notification to CDFG and USFWS. SDG&E's project may proceed during this time if necessary, in compliance with the recommendations of the biologist (For narrow endemic species see mitigation IV following Table 3.1). USFWS survey protocols performed by qualified biologists will be required for new projects which are defined as projects requiring CEQA review.

In those situations where the Environmental Surveyor cannot make a definitive species

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identification, an on-call biologist will be brought in. When the biologist is called, he or she will be contacted concurrently with CDFG and USFWS. The biologist will make the determination of the species in question and recommend avoidance or mitigation approaches to the Environmental Surveyor and a decision will be made. In those situations where more than one visit may be necessary to identify a given species, such as certain birds, no more than three site visits shall be required. It is expected that the typical USFWS search protocols will not be utilized in most situations due to the Plan's avoidance priority. Background information necessary to complete the annual report shall be collected on the preactivity study form and used by SDG&E to prepare the annual report.

14. In order to ensure that habitats are not inadvertently impacted, the Environmental Surveyor shall determine the extent of habitat and flag boundaries of habitats which must be avoided. When necessary, the Environmental Surveyor should also demark appropriate equipment laydown areas, vehicle turn around areas, and pads for placement of large construction equipment such as cranes, bucket trucks, augers, etc. When appropriate, the Environmental Surveyor shall make office and/or field presentations to field staff to review and become familiar with natural resources to be protected on a project specific basis.

15. SDG&E will maintain a library of rare plant locations known to SDG&E occurring within easements and fee owned properties. "Known" means a verified population, either extant or documented using record data. Information on known sites may come from a variety of record data sources including local agency Habitat Conservation Plans, pre-activity surveys, or biological surveys conducted for environmental compliance on a project site (e.g. initial study), but there is no requirement for development of original biological data. Plant inventories shall be consulted as part of pre-activity survey procedures.

7.1.4 Maintenance, Repair and Construction of Facilities

16. Maintenance, repair and construction Activities shall be designed and implemented to minimize new disturbance, erosion on manufactured and other slopes, and off-site degradation from accelerated sedimentation, and to reduce maintenance and repair costs.

17. Routine maintenance of all Facilities includes visual inspections on a regular basis, conducted from vehicles driven on the access roads where possible. If it is necessary to inspect areas which cannot be seen from the roads, the inspection shall be done on foot, or from the air.

18. When the view of a gas transmission line marker becomes obscured by vegetation on a regular basis requiring repeated habitat removal, consideration shall be given to the replacement of markers with taller versions.

19. Erosion will be minimized on access roads and other locations primarily with water bars. The water bars are mounds of soil shaped to direct flow and prevent erosion.

20. Hydrologic impacts will be minimized through the use of state-of-the-art technical design and construction techniques to minimize ponding, eliminate flood hazards, and avoid erosion and siltation into any creeks, streams, rivers, or bodies of water by use of Best Management Practices.

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21. When siting new facilities, every effort will be made to cross the wetland habitat perpendicular to the watercourse, spanning the watercourse to minimize the amount of disturbance to riparian areas (See Figure 4).

22. Gas and other facilities cross streambeds and require maintenance and repair. During such times water may be temporarily diverted as long as after disturbance natural drainage patterns are restored to minimize the impact of the disturbance and help to reestablish or enhance the native habitat. Erosion control during construction in the form of intermittent check dams and culverts should also be considered to prevent alteration to natural drainage patterns and prevent siltation.

23. Impacts to wetlands shall be minimized by avoiding pushing soil or brush into washes or ravines.

24. During work on facilities, all trucks, tools, and equipment should be kept on existing access roads or cleared areas, to the extent possible.

25. Environmental Surveyor must approve of activity prior to working in sensitive areas where disturbance to habitat may be unavoidable.

26. Insulator washing is allowed from access roads if other applicable protocols are followed.

27. Brush clearing around facilities for fire protection shall not be conducted from March through August without prior approval by the Environmental Surveyor. The Environmental Surveyor will make sure that the habitat contains no active nests, burrows, or dens prior to clearing.

28. In the event SDG&E identifies a covered species of plant within a 10' radius around power poles, which is the area required to be cleared for fire protection purposes, SDG&E shall notify USFWS (for ESA listed plants), and CDFG (for CESA listed plants), in writing, of the plant's identity and location and of the proposed Activity, which will result in a Take of such plant. Notification will occur ten (10) working days prior to such Activity, during which time USFWS or CDFG may remove such plant(s). If neither USFWS or CDFG have removed such plant(s) within the ten (10) working days following the notice, SDG&E may proceed to complete its fire clearing and cause a Take of such plant(s).

    When fire clearing is necessary in instances other than around power poles, and the potential for impacts to Covered Species exists, SDG&E will follow the preactivity study and notification procedures in Operational Protocol number 13.

29. Wire stringing is allowed year round in sensitive habitats if conductor is not allowed to drag on ground or in brush and vehicles remain on access roads.

30. Maintenance of cut and fill slopes shall consist primarily of erosion repair. In situations where revegetation would improve the success of erosion control, planting or seeding with native hydroseed mix may be done on slopes.

31. Spoils created during maintenance operations shall be disposed of only on previously disturbed areas designated by the Environmental Surveyor or used immediately to fill eroded areas. Cleared vegetation shall be hauled off the rights-of-way to a permitted disposal location.

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32. Within 6 months of Plan approval, environmentally sensitive tree trimming locations will be identified in the tree trim computer data base system utilized by tree trim contractors. (This data base also tracks the date of each tree trim, type of tree, where threatening dogs reside, etc.). The Environmental Surveyor should be contacted to perform a preactivity survey when trimming is planned in environmentally sensitive areas. Whenever possible, trees in environmentally sensitive areas (determined by CDFG and SDG&E) will be scheduled for trimming in the non-sensitive times.

33. No new Facilities and Activities shall be planned which disturb vernal pools, their watersheds, or impact their natural regeneration. Continued historic maintenance of existing infrastructure utilizing existing access roads is allowed to continue in areas containing vernal pool habitat. New construction of overhead infrastructure which spans vernal pool habitats is allowed as long as the placement of facilities or the associated construction activities in no way impact the vernal pools.

34. If any previously unidentified dens, burrows, or plants are located on any project site after the preactivity survey, the Environmental Surveyor shall be contacted. Environmental Surveyor will determine how to best avoid or minimize impacting the resource by considering such methods as project or work plan redevelopment, equipment placement or construction method modification, seasonal/time of day limitations, etc...

35. The Environmental Surveyor shall conduct monitoring as recommended in the preactivity survey report. At completion of work, the Environmental Surveyor shall check to verify compliance, including observing that flagged areas have been avoided and that reclamation has been properly implemented. Also at completion of work, the Environmental Surveyor is responsible for removing all habitat flagging from the construction site.

36. The Environmental Surveyor shall conduct checks on mowing procedures, to ensure that mowing is limited to a 12-foot wide area on straight portions of the road (slightly wider on radius turns), and that the mowing height is no less than 4 inches.

37. Supplies or equipment where wildlife could hide (e.g., pipes, culverts, pole holes) shall be inspected prior to moving or working on them to reduce the potential for injury to wildlife. Supplies or equipment that cannot be inspected or from which animals could not be removed shall be capped or otherwise covered at the end of each work day. Old piping or other supplies that have been left open, shall not be capped until inspected and any species found in it allowed to escape. Ramping shall be provided in open trenches when necessary. If an animal is found entrapped in supplies or equipment, such as a pipe section, the supplies or equipment shall be avoided and the animal(s) left to leave on its own accord, except as otherwise authorized by CDFG.

38. All steep-walled trenches or excavations used during construction shall be inspected twice daily (early morning and evening) to protect against wildlife entrapment. If wildlife are located in the trench or excavation, the Environmental Surveyor shall be called immediately to remove them if they cannot escape unimpeded.

39. Large amounts of fugitive dust could interfere with photosynthesis. Fugitive dust created during clearing, grading, earth-moving, excavation or other construction activities will be controlled by regular watering. At all times, fugitive dust emissions will be controlled by limiting on-site vehicle speed to 15 miles per hour.

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40. Before using pesticides in areas where burrowing owls may be found, a pre-activity survey will be conducted.

7.1.5 Maintenance of access roads shall consist of:

41. Repair of erosion by grading, addition of fill, and compacting. In each case of repair, the total area of disturbance shall be minimized by careful access and use of appropriately sized equipment. Repairs shall be done after preactivity surveys conducted by the Environmental Surveyor and in accordance with the recommendations regarding construction monitoring and relevant protocols. Consideration should be given to source of erosion problem, when source is within control of SDG&E.

42. Vegetation control through grading should be used only where the vegetation obscures the inspection of facilities, access may be entirely lost, or the threat of Facility failure or fire hazard exists. The graded access road area should not exceed 12'-wide on straight portions (radius turns may be slightly wider) (See Figure 23).

43. Mowing habitat can be an effective method for protecting the vegetative understory while at the same time creating access to a work area. Mowing should be used when permanent access is not required since, with time, total revegetation is expected. If mowing is in response to a permanent access need, but the alternative of grading is undesirable because of downstream siltation potential, it should be recognized that periodic mowing will be necessary to maintain permanent access.

44. Maintenance work on access roads should not expand the existing road bed (See Figure 23).

45. Material for filling in road ruts should never be obtained from the sides of the road which contain habitat without approval from Environmental Surveyor..

7.1.6 Construction of new access roads shall comply with the following:

46. SDG&E access roads will be designed and constructed according to the SDG&E *Guide for Encroachment on Transmission Rights-of-Way (4/91).*

47. Access roads will be made available to managers of the regional preserve system subject to coordination with SDG&E.

48. New access roads shall be designed to be placed in previously disturbed areas and areas which require the least amount of grading in sensitive areas during construction whenever possible (See Figure 5). Preference shall be given to the use of stub roads rather than linking facilities tangentially.

49. SDG&E will consider providing access control on access roads leading into the regional preserve system where such control provides benefit to sensitive resources.

50. New access road construction is allowed year round. Every effort shall be made to avoid constructing roads during the nesting season. During the nesting season, the presence or absence of nesting species shall be determined by a biologist and appropriate avoidance and minimization recommendations followed.

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7.1.7 Construction and Maintenance of Access Roads Through Streambeds

51. Construction of new access roads through streambeds requires a Streambed Alteration Agreement from CDFG and/or consultation with the Army Corps of Engineers.

52. Maintenance or construction vehicle access through shallow creeks or streams is allowed. However, no filling for access purposes in waterways is allowed without the installation of appropriately sized culverts. The use of geotextile matting should be considered when it would protect wetland species.

53. Staging/storage areas for equipment and materials shall be located outside of riparian areas. (See Figure 23).

7.1.8 Survey Work

54. Brush clearing for foot paths or line-of-sight cutting is not allowed from March through August in sensitive habitats without prior approval from the Environmental Surveyor, who will ensure that activity does not adversely affect a sensitive species.

55. SDG&E survey personnel must keep vehicles on existing access roads. No clearing of brush for panel point placement is allowed from March through August without prior approval from the Environmental Surveyor.

56. Hiking off roads or paths for survey data collection is allowed year round so long as other protocols are met.

7.1.9 Emergency Repairs

57. During a system emergency, unnecessary carelessness which results in environmental damage is prohibited.

58. Emergency repair of facilities is required in situations which potentially or immediately threaten the integrity of the SDG&E system, such as pipe leaks, or downed lines, slumps, slides, major subsidence, etc. During emergency repairs the Operational Protocols contained in this Subregional Plan shall continued to be followed to fullest extent possible.

59. Once the emergency has stabilized, any unavoidable environmental damage will be reported to the Environmental Surveyor by the foreman. The Environmental Surveyor will develop a mitigation plan and ensure its implementation is consistent with this Subregional Plan.

7.1.10 Activities of Underlying Fee Owners

60. Most SDG&E rights-of-way are held in easement only. The activities of underlying fee owners cannot be controlled by SDG&E and are not covered by this Subregional Plan.

61. When sensitive habitat exists on either side of a utility right-of-way, SDG&E will not oppose underlying fee owners dedicating said property to conservation purposes. Underlying fee owners are expected to comply with applicable federal, state, and local regulations.

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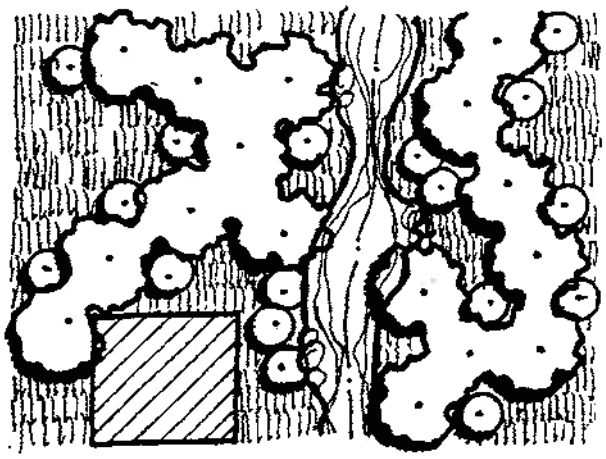

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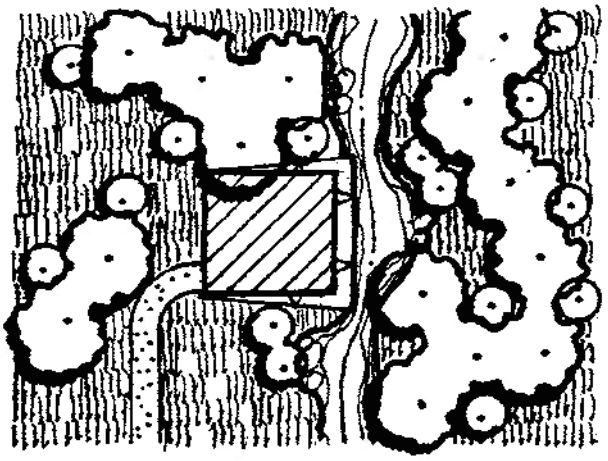

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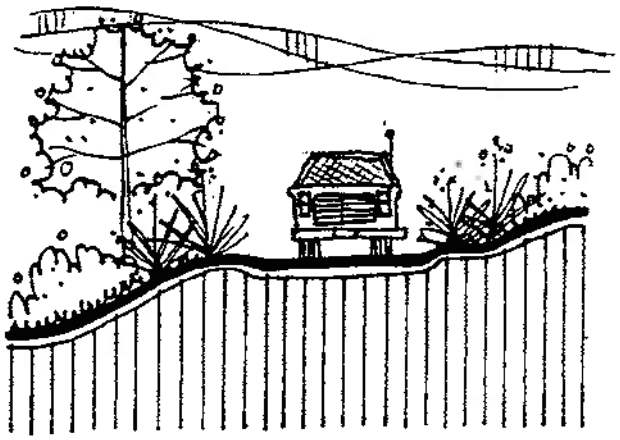
CONSTRUCTION STAGING/STORAGE AREAS SHOULD BE LOCATED OUTSIDE OF STREAMS



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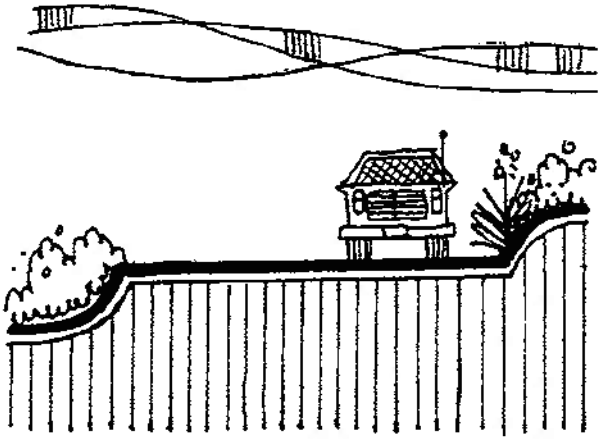

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ACCESS ROAD MAINTENANCE SHOULD NOT EXPAND THE EXISTING ROAD BED

FIGURE

Operational Protocol Diagrams

23

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7.2 Habitat Enhancement Measures

The purpose of this section is to describe the techniques and permit the substitution of habitat enhancement measures when it is more beneficial than the use of mitigation credits. Habitat enhancement increases the value of biological resources in an impacted area, thereby improving the value of that habitat for Covered Species. Habitat enhancement activities shall occur under the direction of a Habitat Restoration Specialist. All disturbed areas, whether inside or outside of preserves, and which do not need to be maintained in a cleared state, shall be enhanced, either through vegetation restoration, habitat reclamation, or a combination of the two. Vegetation restoration entails a range of techniques.

For SDG&E Activities occurring within the Preserve, and for SDG&E Activities affecting riparian/wetland areas, the particular enhancement methodology will be proposed by SDG&E, with USFWS and CDFG concurring prior to implementation. For all other areas outside of the Preserve, SDG&E has discretion over the enhancement method selected, although it is expected that a standard coastal sage scrub seed mix will be used for reseeding many disturbed areas. For impacts both within and outside Preserve, if habitat enhancement is not selected, or is not successful according to the criteria specified in the mitigation flow chart (Figure 24), then a deduction from the SDG&E Mitigation Credits shall be made in accordance with ratios contained in Section 7.4. For all temporary impacts greater than 500 square feet, acreage not meeting success criteria shall be deducted from SDG&E mitigation credits at a 1:1 ratio. For areas of less than 500 square feet, success criteria will not be required to be met. In such areas, refer to erosion control measures contained in Section 7.1.

7.2.1 Vegetation Restoration

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The Habitat Restoration Specialist has a range of vegetation restoration techniques from which to choose:

Hydroseeding

Vegetation restoration will typically be done using a native seed mix obtained from a commercial seed provider and shall be applied by hydroseeding. For hydroseeding inside the Preserve areas, seed will be obtained from the local gene-pool and similar composition to the reference site.

Vegetation restoration shall be conducted from mid-November through mid-January to take advantage of rainy season precipitation, and should not be artificially irrigated.

Seed mix specifications and application techniques shall be provided by the Habitat Restoration Specialist, who will be an acknowledged specialist in native habitat restoration or a plant ecologist with experience developing native restoration plans in Southern California. The Habitat Restoration Specialist will be responsible for restoration plans within the Preserve.

If restoration lands contain areas used for temporary roads, staging areas, or other intensive activities, the soil may become so compacted that revegetation is difficult. In cases such as this, disking and plowing the compacted soil will loosen it and improve the success of hydroseed revegetation. Disking may also foster weed growth and should only be used where an influx of weeds would not adversely affect adjacent native plant communities.

Consideration shall be given to supplemental planting of species of concern in areas where it is desirable to expand existing colonies. For example, supplemental planting may be highly desirable in areas containing chollas or prickly pear cactus. Supplemental planting and plant relocation should only be done in disturbed areas that are thought to be suitable. Habitat conversion and impacts to extant native vegetation should be avoided.

Hand-Seeding

Seed may be applied by hand and raked into the top inch of soil. This method is best suited for small areas and areas that are inaccessible to a hydroseed truck.

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Imprinting

Imprinting is the mechanical formation of smooth-walled V-shaped furrows in the soil surface, application of seed and injection of beneficial mycorrhizal fungi into the soil surface. This method is best suited for areas that are accessible by bulldozer and where there is a potential problem with weeds.

Soil and Plant Salvage

Native vegetation from the area to be impacted should be removed, mulched and stockpiled separately. Top soil should also be removed and stockpiled separately. Following construction activities, the top soil should be replaced and covered with the mulch. The top soil and mulch both have native propagules and the mulch reduces the erosion potential. This method is well suited for temporary roads, staging areas, or other intensive activities.

Quality Assurance

Monitoring, involving visual inspection, shall be conducted on restoration sites after one year. A second application may be made. If, after one more year, restoration is deemed unsuccessful, the wildlife agencies, in cooperation with SDG&E, will determine whether the remaining loss shall be mitigated through a deduction from the SDG&E Mitigation Credits, or a third application would better achieve the intended purpose.

Coverage standards will be based on comparisons with established stands of the target vegetation, or another reference area. The means of determining success should be based on estimates of cover by native species, cover of exotic species, and diversity of native species. The cover of native species should increase and the cover of weed species should decrease, eventually approximating the reference area. The reference areas should be a nearby stand of vegetation that the restoration is attempting to emulate. It should have a similar aspect, slope, and soil type.

Cover for the restoration and references areas should be estimated using repeatable cover classes. One tested system is as follows:

Cover Class	**1**	**2**	**3**	**4**	**5**	**6**
% Cover	0-5	5-25	25-50	50-75	75-95	95-100
Mean Cover	2.5	15	37.5	62.5	85	97.5

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SUCCESS CRITERIA MILESTONES

Criteria*	Year 1	Year 2
Cover by Exotic Species**	140%	130%
Cover by Native Species (trees shrubs and herbaceous species)	60%	70%

*Values are relative to reference area
**Percent total cover

7.2.2 Habitat Reclamation

Habitat reclamation techniques should be considered when re-seeding would be an ineffective habitat enhancement due to the presence of stronger and more prolific exotic vegetation in the proximity.

Habitat reclamation involves the elimination of existing exotic vegetation (weed abatement) to facilitate the natural re-colonization of a native habitat. An example of where habitat reclamation would be appropriate is in wetland areas containing tamarisk or giant reed.

In order to avoid net loss of wetland and riparian habitat, exotic species should be removed at a 2:1 ratio. Exotics should be removed from the site and disposed of off-site. Soil should be prepared for new native growth to occur. In areas larger than 500 square feet, reseeding will supplement the recovery of native vegetation

Reclamation shall be limited to initial removal and one-time removal of new growth within one year if necessary. In certain cases, such as with Arundo removal, it may be necessary to clear invasive vegetation a third time. Once weeds are controlled, if extensive reclamation is undertaken, supplemental planting may be necessary to keep weeds out.

The habitat reclamation shall be done under the direction of the Habitat Restoration Specialist who will determine the abatement technique to be used and the area in the vicinity of the project site on which abatement would be most effective in facilitating reclamation on the project site.

7.2.3 Procedure

(Refer to Figure 24).Figure 24 -- Mitigation Flow Diagram

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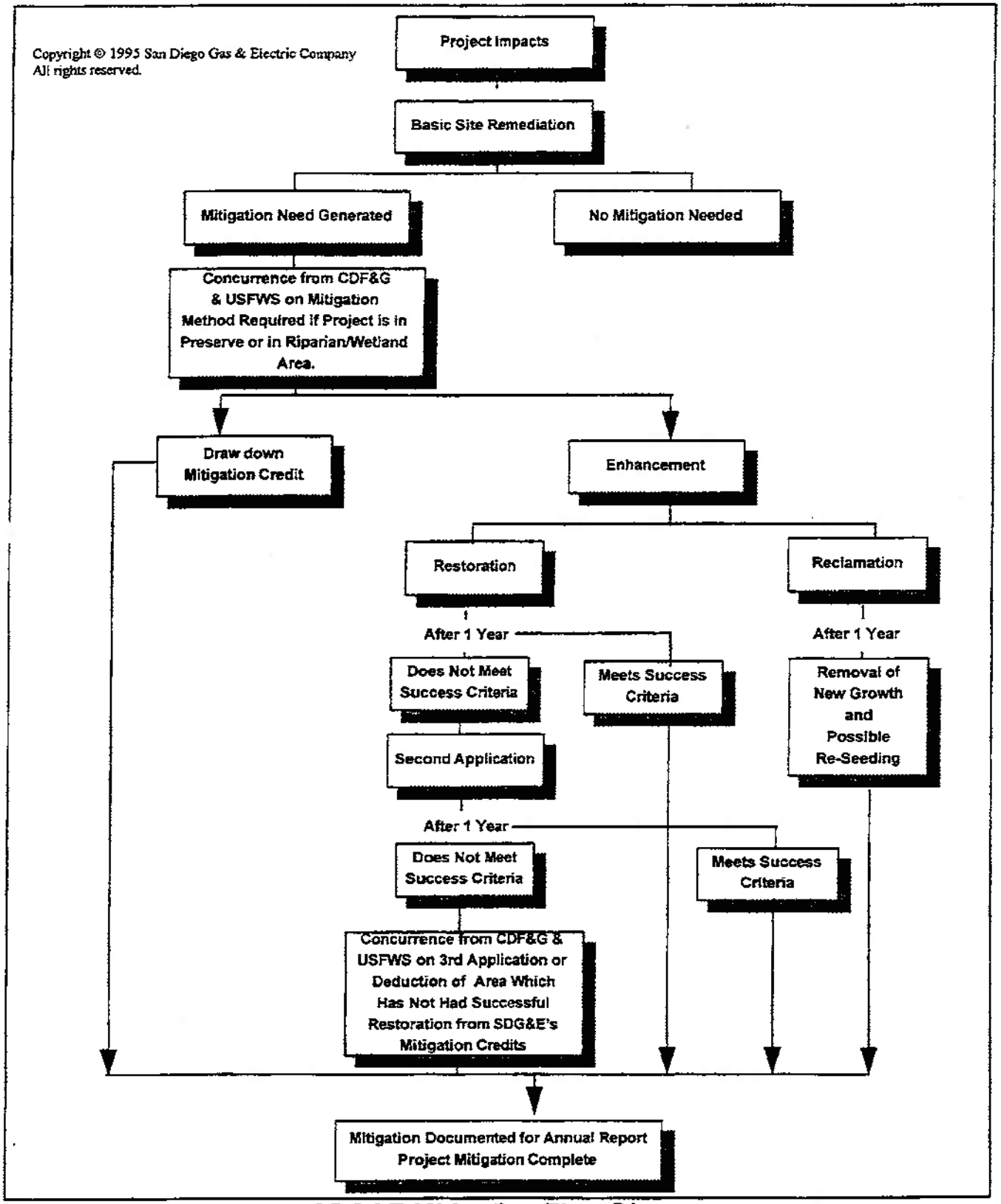

SDG&E Mitigation Flow Diagram
(For Temporary Disturbances)

FIGURE
24

7.3 Fee-Owned Rights-of-Way

Certain of SDG&E's electric transmission rights-of-way consist of real property owned in fee by SDG&E. Such fee owned rights-of-way are of various widths and cover a variety of habitat types. Some of the fee-owned rights-of-way may serve as the foundation for the creation by USFWS and CDFG of valuable wildlife corridors between Preserve Areas. The fee-owned rights-of-way subject to this subsection are identified on Figure 25a and 25b.

As a further mitigation measure, SDG&E will restrict the use and development of such lands to those SDG&E activities covered by this Subregional Plan. Subject to the terms and conditions of the Implementing Agreement, SDG&E shall effect such use and development restriction by granting a prohibitory easement in favor of USFWS and CDFG, or their designee, to be recorded in County Recorder's Office for the County in which such land is located.

To assist in the creation of these corridors, SDG&E agrees that it will not, and that it will not allow any other person, to use such rights-of-way for any purpose other than for SDG&E Activities conducted in accordance with this Agreement, the Permits and the Subregional Plan. SDG&E's agreement to limit its use of such rights-of-way shall remain effective for so long as USFWS and CDFG continuously uses such rights-of-way in combination with other real property rights acquired by USFWS and CDFG in adjoining property, the use of which is subject to similar limited or restricted uses, to establish functional and effective corridors for Covered Species between separated Habitat and Preserve Areas, and, for so long as such corridors are properly functioning and necessary

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for the conservation of Covered Species. SDG&E's agreement to limit the use of such rights-of-way will be memorialized in a negative or open space easement in favor of USFWS and CDFG, or their designee, and recorded in the County Recorder's Office for the county in which such rights-of-way are located. Such easement shall be substantially in the form of the easement attached hereto. However, in the event that any of such rights-of-way shall cease to be an essential element of a properly functioning, effective and necessary corridor, all easement rights conveyed by SDG&E affecting any such right-of-way shall terminate and revert back to SDG&E without limitation or reservation.

To the extent SDG&E rights-of-way extend over land in which it does not hold an undivided fee ownership interest, SDG&E agrees to approve of and when appropriate, encourage the conveyance, grant or dedication of such land by the fee owner to any relevant Habitat Conservation Planning Management entity for wildlife conservation purposes; provided, however, any such conveyance, grant or dedication shall be subject to the authorizations and Permitted Activities granted by USFWS and CDFG to SDG&E herein and to the rights of SDG&E to use such property for public utility purposes to the extent SDG&E held such rights, in law or in equity, at the time of such conveyance, grant or dedication. SDG&E further agrees, where the company's land rights allow, to prevent the underlying land owner from removing habitat within rights-of-way of significant habitat value to the extent feasible.

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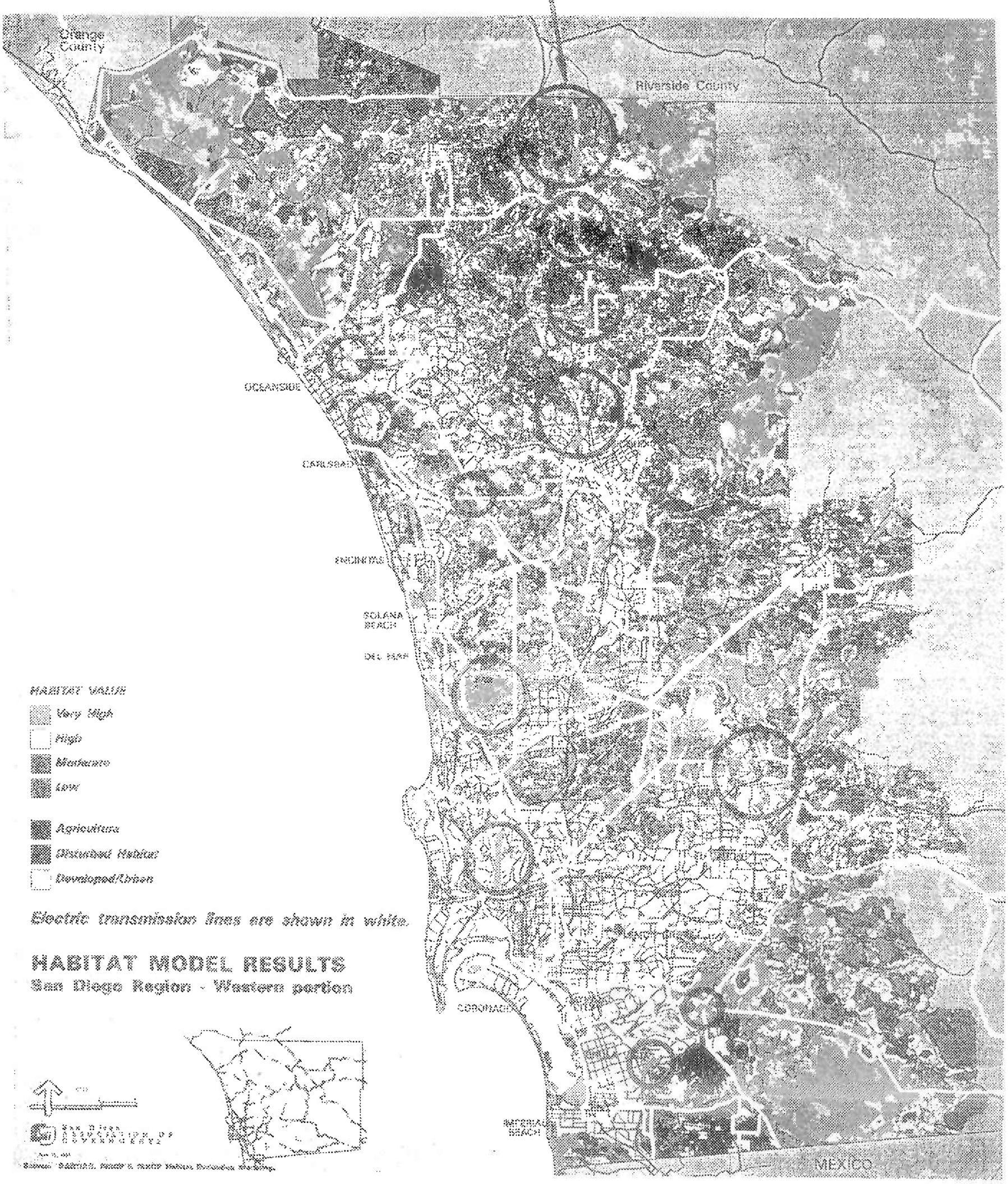
Fee Owned Rights-of-Way are Designated with Pink Lines Within Black Circles - Typical

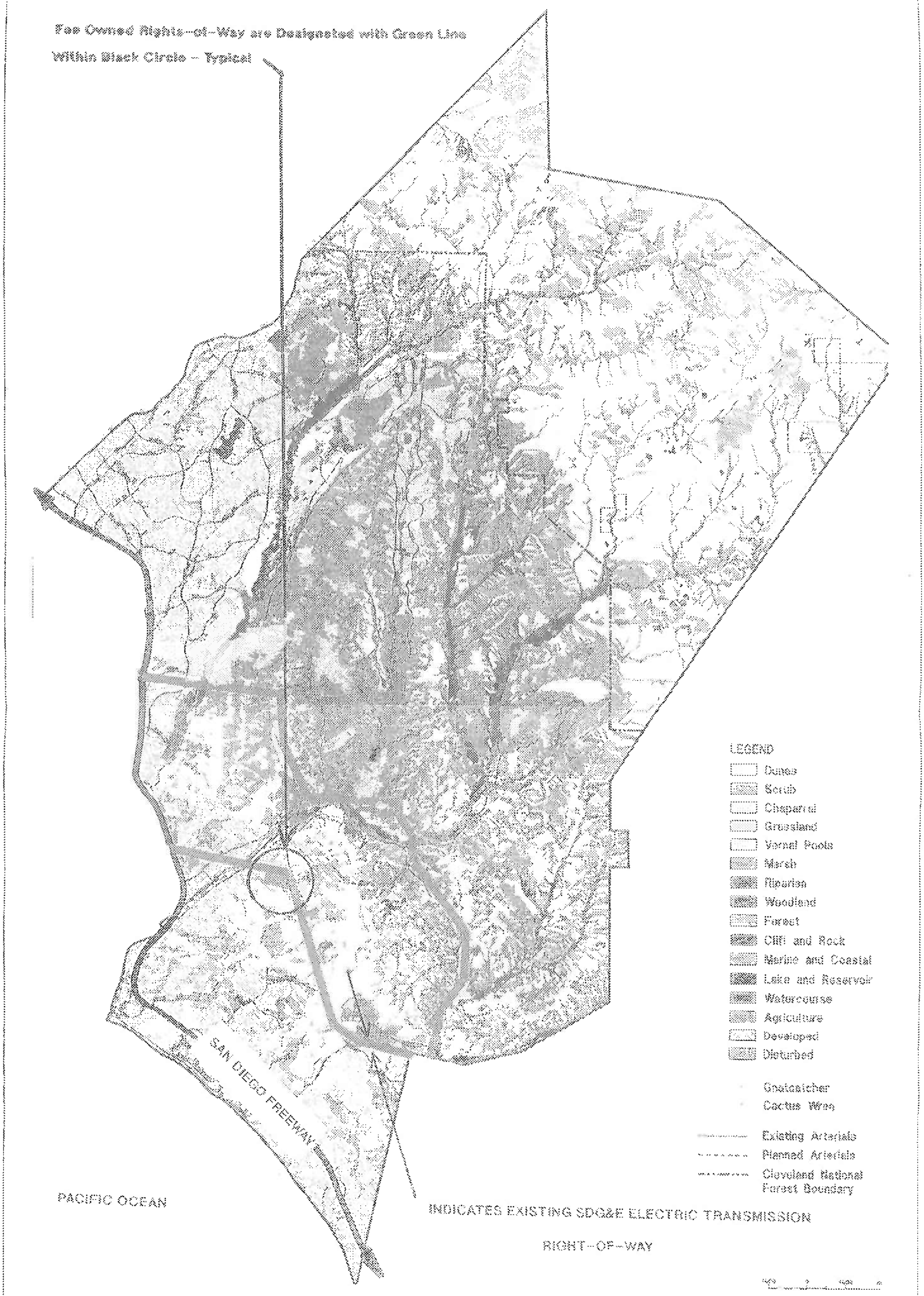


HABITAT MODEL RESULTS

San Diego Region - Western portion

FIGURE 25a

SDG&E Electric Transmission System Fee Owned Rights-of-Way



Source: Dudek 1994, SDG&E 1993

SDG&E Electric Transmission System Fee Owned Rights-of-Way

FIGURE
25b

7.4 Mitigation Credits

SDG&E will provide the USFWS and the CDFG with funds to enable the procurement of approximately 240 acres of high quality habitat land. The provision of such funds will create a conservation bank in favor of SDG&E in which SDG&E will hold approximately 240 acres of Mitigation Credits for impacts to covered species or their habitats which result from SDG&E Activities. Mitigation Credits associated with the SDG&E Subregional Plan will be drawn upon and deducted from available Mitigation Credits to mitigate for unavoidable impacts associated with SDG&E Activities. Habitat enhancement opportunities may be available and pursued prior to such deductions being taken from the SDG&E Mitigation Credits as discussed in Section 7.2.

The habitat associated with the SDG&E Mitigation Credits is of very high value. The location and configuration of the land will play a critical role in meeting region-wide conservation goals. As such, the Mitigation Credits serve as mitigation for both in-kind and out-of-kind covered species and habitat impacts, without regard to the type of habitat and the biological value of the habitat impacted, except with regard to wetlands falling within the jurisdiction of the Army Corps of Engineers pursuant to Section 10 of the Rivers and Harbors Act and Sections 403 and 404 of the Clean Water Act.

In the Annual Report which will be prepared as a condition of this Plan, the general condition of the habitat assoicated with the Mitigation Credits will be discussed, with special attention paid to changes in the habitat such as from stochastic events like fires and drought. The Report will also include a table showing how many credits were used from the Mitigation Credits (expressed in acres) and how many are left.

Also in the Annual Report will be an analysis jointly prepared by SDG&E, CDFG and USFWS on the performance of the management entity who are overseeing the day-to-day

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operations of the habitat associated with the Mitigation Credits. It may be necessary based on the outcome of that reporting to transfer control to CDFG or USFWS, if all of the parties agree.

The ratio between impacts from Activities and corresponding deductions from the Mitigation Credits are as follows:

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Table 7.4

ACTIVITY	LOCATION	DURATION	RATIO
New Facilities	Inside Preserve*	Permanent	2:1
	Inside Preserve	Temporary	(a)(c)
	Outside Preserve	Permanent	1:1
	Outside Preserve	Temporary	(a)
Maintenance of Existing Facilities	Inside Preserve	Permanent	2:1
		Temporary	(a) (b)
	Outside Preserve	N/A	(b)

(a) Temporary impacts are mitigated through basic site remediation which, includes native hydroseed for erosion control. However, if roots are not grubbed during temporary impacts, the hydroseeding may not be necessary. This applies to areas greater than 500 square feet, and only where grubbing occurred. For all temporary impacts greater than 500 square feet, acreage not meeting success criteria shall be deducted from SDG&E mitigation credits at a 1:1 ratio.

(b) Impacts associated with maintenance of existing facilities are mitigated for the term of the permit by SDG&E's agreement to restrict development other than SDG&E activities on fee-owned rights-of-way which contain habitat, connect fragmented habitat areas, or contribute to the habitat carrying capacity of the Preserve Areas in the region. SDG&E agrees to limit its use of such rights-of-way to utility activities.

(c) Same as (a), except that any portion of the temporarily impacted area which does not revegetate in accordance with Section 7.2 and the Mitigation Flow Chart attached as Figure 24, then acreage not meeting success criteria shall be deducted from the SDG&E Mitigation Credits.

*The term "Preserve" in Table 7.4 means the area encompassed by the MSCP's Multi-Habitat Planning Area (MHPA) map (as currently defined or ultimately adopted), the equivalent maps for the MHCP and MHCOS programs in San Diego County, the South Orange County NCCP Subregional Plan reserve area, and the Riverside County Conservation Agency Core reserve areas. If no preserve areas are formally delineated, those areas which are designated moderate, high, and very high quality habitat on habitat on evaluation maps prepared for the respective planning areas are considered the "Preserve."

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8 Alternatives

Within its service territory, the demands of customers for electric power and natural gas are met by SDG&E. As a public utility, SDG&E is required by Public Utilities Code Section 451 to provide these utility services in a safe and reliable manner. The CPUC has the authority under Public Utilities Code Sections 701, 761 and 762 to require public utilities to establish and maintain the facilities and property rights which are necessary to provide safe and reliable service. In addition, SDG&E sets corporate goals in an effort to attain the highest quality and dependability of service at the lowest rates it can achieve.

These customer demands, legislative mandates, regulatory controls and corporate goals require that SDG&E install new facilities necessary to meet the growing demands of its customers, and that such new facilities and all existing facilities be adequately maintained and repaired to ensure safety and reliability. This Subregional Plan addresses such installation, operation, maintenance, and repair Activities and their potential to impact Covered species or their habitat.

The curtailment of any aspect of the SDG&E Activities would render SDG&E's public utility services, to a greater or lesser extent, inadequate to meet demand, inefficient, unsafe, and unreliable.

An alternative to this Subregional Plan is to do no conservation plan at all. The no plan alternative would mean that the SDG&E Activities described in the Subregional Plan would remain subject to "take" prohibitions of ESA and CESA. Incidental Take permits would be required for such Activities on a project by project and species by species basis. The case by case process of permitting is cumbersome. It has the potential to miss or to inadequately examine protective and conservation issues and measures, which may be too

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ill defined, unrecognized or vague to enable a clean and meaningful impact analysis or to articulate needed mitigation measures. This Subregional Plan addresses such issues from an ecosystem or habitat basis, wherein such protections or conservation measures are affected, whether or not defined, as a functioning aspect or part of the protected and covered ecosystem or habitat. Because this Subregional Plan provides comprehensive multiple species and habitat conservation, and is not limited to listed species, it provides a net benefit to the environment in that it protects and conserves species in a manner which may prevent any future listing of such species. In addition, the Subregional Plan provides SDG&E with long term predictability concerning the nature of its operations for which in takings are permitted, avoiding cumbersome procedures and potential facility compromising delays.

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9 Funding

Funding requirements must be guaranteed in order for this Plan to be implemented. Therefore, SDG&E must be solvent enough to provide the financial confidence that will constitute such a guarantee. SDG&E has served the San Diego area for over 114 years. The Company's evident stability is reflected in an A+ Standard & Poor's bond rating, an A1 bond rating by Moody's, and by the historical fact that SDG&E has not missed a dividend in 84 years. In 1994, SDG&E's operating revenues exceeded operating expenses by $321,916,000.00. The fiscal health is such that SDG&E was able to declare a dividend of $1.52 for each of its 116,484,000 shares of common stock for a 9.1% return on common equity. These figures, along with the Company's financial history should provide adequate assurance that SDG&E has the fiscal soundness to fulfill its financial commitments with regard to the implementation of this Plan.

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10 Acknowledgments

This plan was prepared over a two-year period by San Diego Gas & Electric staff and consultants, with support from several outside entities. Any omission of names is not intentional.

SAN DIEGO GAS & ELECTRIC PROJECT TEAM

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Thomas G. Acuña, Land Planner
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DATA BASE SUPPORT

Timothy J. Hurley, GIS Project Manager, SDG&E
Ogden Environmental & Energy Services Company (MSCP & MHCP biological data)
Dudek & Associates (MHCP & South Orange County biological data)
RECON (Riverside County biological data)
County of San Diego (MHCOS biological data)
San Diego Association of Governments (GIS support)

WILDLIFE AGENCIES

Ron Rempel, California Department of Fish & Game
Theresa Stewart, California Department of Fish & Game
Sherry Barrett, United States Fish & Wildlife Service
Jacalyn Fleming, United States Fish & Wildlife Service

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Appendix A
Scope of Preactivity Study

The purpose of the preactivity study is to determine the presence or absence of sensitive resources on or in the vicinity of a project area. Preactivity studies may be appropriate for any type of SDG&E field operation in a natural area. Prior to activities off of access roads in natural areas , the Environmental Surveyor conducts a preactivity study and records the findings of the study on the Preactivity Study Form (See Figure 26, pages 1 and 2). The preactivity study documents information such as:

- Type, location, and size of project
- Date, time, weather, and surrounding land uses
- Evaluation of type and quality of habitat
- Work description and methods which will be used to avoid or minimize ground disturbance, including biological monitoring during construction
- Anticipated impacts (if any) and proposed mitigation, i.e., enhancement or deduction from mitigation credits
- Map of location of work area

This Environmental Surveyor's recommendations regarding how to complete the project while avoiding or minimizing disturbance to environmental resources is detailed verbally to field personnel and followed by written documentation. The preactivity study will be conducted no earlier than 30 days before the surface disturbing activity. If surface disturbance has not commenced within 30 days, the Environmental Surveyor will conduct a verification study. The Environmental Surveyor's verbal and written recommendations will be submitted to the field crew within 1 week of conducting the study and prior to the activity.

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The Preactivity Study Form is also faxed to CDFG and USFWS, along with telephone notification who will reply within 5 working days, indicating if they would like to review the project. When a project can be completed avoiding impacts to natural resources, notification of CDFG and USFWS is for information only, and will not require approval, SDG&E's project may proceed during this time if necessary.

However, when the project cannot be completed without impacts, thus necessitating mitigation, CDFG and USFWS concurrence is required on the need for post-project site enhancement and on the enhancement method. For all new Facilities and related Activities, if Habitat cannot be avoided, a qualified biologist shall be called in to perform surveys following methodologies accepted by the Service. Upon receipt of the Preactivity Study Form, CDFG and USFWS has 15 working days to concur with the enhancement method. If CDFG and USFWS concurrence is not conveyed within 15 working days, the need for post-project enhancement and the enhancement method will be conducted in accordance with the enhancement method specified in the notice.

In both cases, the data recorded on the Preactivity Study Form is then entered into a SDG&E computer data base which is used to develop SDG&E's annual report to the CDFG and USFWS.

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Preactivity Survey Form

LPPM Field ID #: _____

Date Request Rcvd: _____

Project Name: _____

Address/Location: _____

Project Type: _____

Originating Dept: _____

Requestor: _____

Requestor Phone #: _____

LPPM Field Rvwr: _____

LPPM Fld Rvwr Phone #: _____

Project Budget #: _____

Const #/Work Order: _____

Account #: _____

Function Code: _____

Date of Field Survey: _____

Weather Conditions: _____

Site Elevation: _____

Thomas Bros Ref #: _____

APN: _____

Field Survey Start Time: _____

Field Survey Stop Time: _____

Hours Spent in Field: _____

Linear Feet: _____

Square Feet: _____

Biologist Required?: _____

Total Hours Spent on This Request: _____

Preactivity Survey Form (sheet 2 of 2)

Project Name_____

Field ID#_____

Surrounding Land Use/Habitat

North_____

South_____

East_____

West_____

Proposed Work Description

Habitat Evaluation

Reviewer Recommendation

Appendix B
SDG&E Environmental Surveyor Program Certification

GOAL

SDG&E shall implement and comply with the terms of the NCCP Subregional Plan (Plan) by utilizing a professional staff familiar with land use planning and environmental protection techniques.

DEFINITION OF STAFF

SDG&E staff is defined as employees of SDG&E or its independent agents, contractors, consultants practicing land use planning, biology, or similar profession and capable of implementing the terms and goals of the Plan.

BIOLOGICAL RESOURCES TRAINING PROGRAM

To ensure adequate training, staff shall be trained and tested by a recognized independent environmental consultant with experience in environmental biology. Specific focus shall be to ensure that all of the species of plants and animals covered by the Plan can be identified and protected during operation, maintenance, and new construction activities. The consultant shall provide a certification for "Environmental Surveyor" to staff members successfully fulfilling the requirements of the training program.

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Specifically, training for SDG&E staff shall consist of a 10-week, 40-hour course called the "Comprehensive Biological Resource Training Program." The Program's curriculum, goals, and objectives are attached as "Exhibit A." From time to time in consultation with the wildlife agencies, the program curriculum will be revised and updated.

TESTING

SDG&E shall test and will continue to test its staff periodically for competency in relevant environmental science and field work expertise.

STAFF SKILLS REQUIREMENTS

SDG&E staff shall be capable of implementing the following:

A) Prior to maintenance activity, SDG&E operations, or project construction:

- Conducting preliminary site visits to determine the extent and location of native vegetation communities and native wildlife within each project area.
- Assess the potential for the presence of sensitive habitats, plants or wildlife species on the site; especially species listed as threatened or endangered at the state or federal level.
- Review existing databases and general references to compile known records of sensitive species in the vicinity of the site.
- Determine the need for further biological assessment by expert biologists.

B) In cases where no further analysis (by expert biologists) is required:

- Document the existing vegetation communities and representative wildlife species.
- Determine the extent and location of project impacts.
- Advise field crews on methods for proceeding, which avoid impacts to sensitive areas, and implement other Operational Protocols as appropriate.
- Recommend specific mitigation measures to offset unavoidable impacts.
- Monitor construction or maintenance activities to avoid impacts to sensitive areas.
- Prepare follow-up reports describing the work completed and effect of project on biological resources.

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C) In cases where further analysis is required by biological experts:

- Work with expert biologist to ensure comprehensive analysis is completed.

STAFF CERTIFICATION

SDG&E shall provide an updated list of qualified staff and copies of the Environmental Certification during the month of January each year to CDF&G and USFWS for review and record keeping. Copies of classroom work and testing shall only be submitted at the first certification of each qualified staff member. Thereafter, only copies of their Environmental Surveyor certification shall be provided on a yearly basis. Additional qualified staff members may be added to the list during the year by submitting copies of their class work, testing results and Environmental Certification.

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EXHIBIT "A"

SAN DIEGO GAS & ELECTRIC COMPANY
ENVIRONMENTAL TRAINING PROGRAM
CURRICULUM /
GOALS AND OBJECTIVES

1) *Establish a broad overview of ecology, ecosystems, and the science of conservation biology.*

a) Describe the flow of energy, nutrients, and water through an ecosystem including role of autotrophs, heterotrophs, nitrogen fixation, photosynthesis, and energy break down. Identify examples of these basic processes in southern California ecosystems.

b) Describe the basic components of an ecosystem (primary producer, consumer, tertiary consumers, etc.) Identify examples of these trophic levels in southern California's ecosystems.

c) Describe the general effects of development on natural ecosystems including removal of native diversity, disruption of natural systems (eutrophication), and the benefits of habitat restoration.

d) Define the physical and biological factors that make southern California an unusual region.

2) *Use standard biological references and field guides to identify vegetation communities, and plant and wildlife species common to southern California ecosystems.*

a) Identify the dominant indicator plant species for common vegetation communities with southern California.

b) Identify the common reptile, bird, and mammal species in southern California's ecosystems.

c) Be able to prepare detailed vegetation map of a particular area and identify dominant plants in each community,

d) Understand how to use dichotomous keys for identifying common plants of coastal sage scrub, chaparral, and riparian habitats.

e) Create a library of natural history field guides including standards guides for plants, reptiles, birds, and mammals.

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f) Create a matrices of habitats and key indicator species.

3) *Use range maps, species accounts, existing biological resources assessments, and data bases to determine the general biological setting and determine the potential for a particular area to support sensitive habitat, plants, or wildlife.*

a) Define what habitats and sensitive species may occur in a particular area of interest before initiating a field survey.

b) Determine the appropriate references for acquiring additional information on specific biological resources.

4) *Identify typical habitat types for federally listed and State listed wildlife species throughout southern California with a focus on the coastal California gnatcatcher, lease Bell's vireo, southern willow flycatcher, southwestern arroyo toad, and Pacific pocket mouse.*

a) Understand basic biology of the coastal California gnatcatcher, lease Bell's vireo, southern willow flycatcher, arroyo toad, and Pacific Pocket mouse, including biology, habitat requirements, and potential impacts to these species associated with SDG&E's activities.

b) Be familiar with the diversity of sensitive species throughout the region (Species of Concern) with emphasis on those plants and wildlife species typically encountered in coastal sage scrub habitats.

c) Determine the appropriate season for sensitive species surveys.

d) Determine the need for professional biologists to conduct focused surveys.

5) *Understand basic principles of conservation biology focusing on the viability of populations and the process of local extinction.*

a) Compare and contrast the genetic, stochastic, demographic, and environmental factors affecting the stability of a population.

b) Define the effects of habitat fragmentation and the importance of wildlife movement corridors to maintaining stable populations.

c) Describe Soule's "extinction vortex" and how it may apply to small and fragmented populations in southern California.

d) Identify wildlife movement corridors by topography, vegetation, and surrounding urbanization.

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6) *Understand the history of state and federal laws affecting wildlife management with a focus on Sections 4, 7, 9, and 10 of the federal Endangered Species Act and the Natural Community Conservation Plan. Understand how the Endangered Species Act works in conjunction with CEQA, NEPA, and the Fish and Game Code (including CESA).*

a) Describe the evolution of and need for wildlife management laws from the Lacey Act, Migratory Bird Treaty Act, and Endangered Species Act.

b) Describe basic components of the federal Endangered Species Act.

c) Describe "take" as it pertains to southern California with reference to harassment, removal of potentially occupied habitats, and direct removal of occupied habitats.

d) Describe the listing process and Candidate system and why this system is currently under review.

e) Compare and contrast the Section 7 and Section 10 processes.

f) Describe the components of a Biological Assessment and Habitat Conservation Plan.

g) Describe the NCCP and how habitat-based conservation plans differ from the single species conservation.

h) Describe pertinent projects, decisions, and controversies surrounding the federal Endangered Species Act.

7) *Understand the basic component of Section 404 of the Clean Water Act and Section 1600 of the Fish and Game Code with emphasis on determining the need for professional delineation of wetlands and stream courses through an area. Identify wetland versus upland vegetation, hydric soil types, and "unusual" wetlands such as vernal pools and ephemeral streams.*

a) Define the basic component of Section 404 and Section 1600.

b) Create a checklist for wetlands, including soils, hydrology, and vegetation.

c) Identify common wetland indicator species.

d) Use the basic methods and reference material pertaining to official wetland delineations.

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e) Understand need for professional advice on determining full extent of "wetlands" in xeric habitats.

8) *Incorporate the various methods of habitat restoration and revegetation in coastal sage scrub and wetland habitats into biological mitigation programs.*

a) Compare and contrast the basic methods of coastal sage scrub revegetation, including hydroseeding, native regrowth, and container planting.

b) Compare the contrast the basic methods of wetland restoration for southern California's riparian ecosystems with emphasis on mulefat scrub and willow scrub habitats.

c) Determine the projects requiring irrigation and those that may function well without irrigation.

d) Understand ecological benefits of erosion, control measures, removal of weeds (especially giant reed grass), cowbird trapping, controlled human access, fencing, interpretive signs, and other mitigation measures.

e) Describe mitigation banking and site-specific measures and how these methods can work together.

9) *Establish the forms, methods, and review system for Preactivity Survey and conduct a Preactivity Survey.*

a) Create a field survey form identifying all pertinent aspects of the biological setting requiring review during a Preactivity Survey.

b) Conduct a Preactivity Survey to determine the extent and location of native vegetation communities and the potential for the area to support sensitive biological resources, including sensitive habitats, corridors, plants, and wildlife.

c) Determine the need for further biological assessments by a professional biologist.

d) Incorporate photodocumentation into report preparation.

e) Prepare an annual report pertaining to all areas surveyed under the program.

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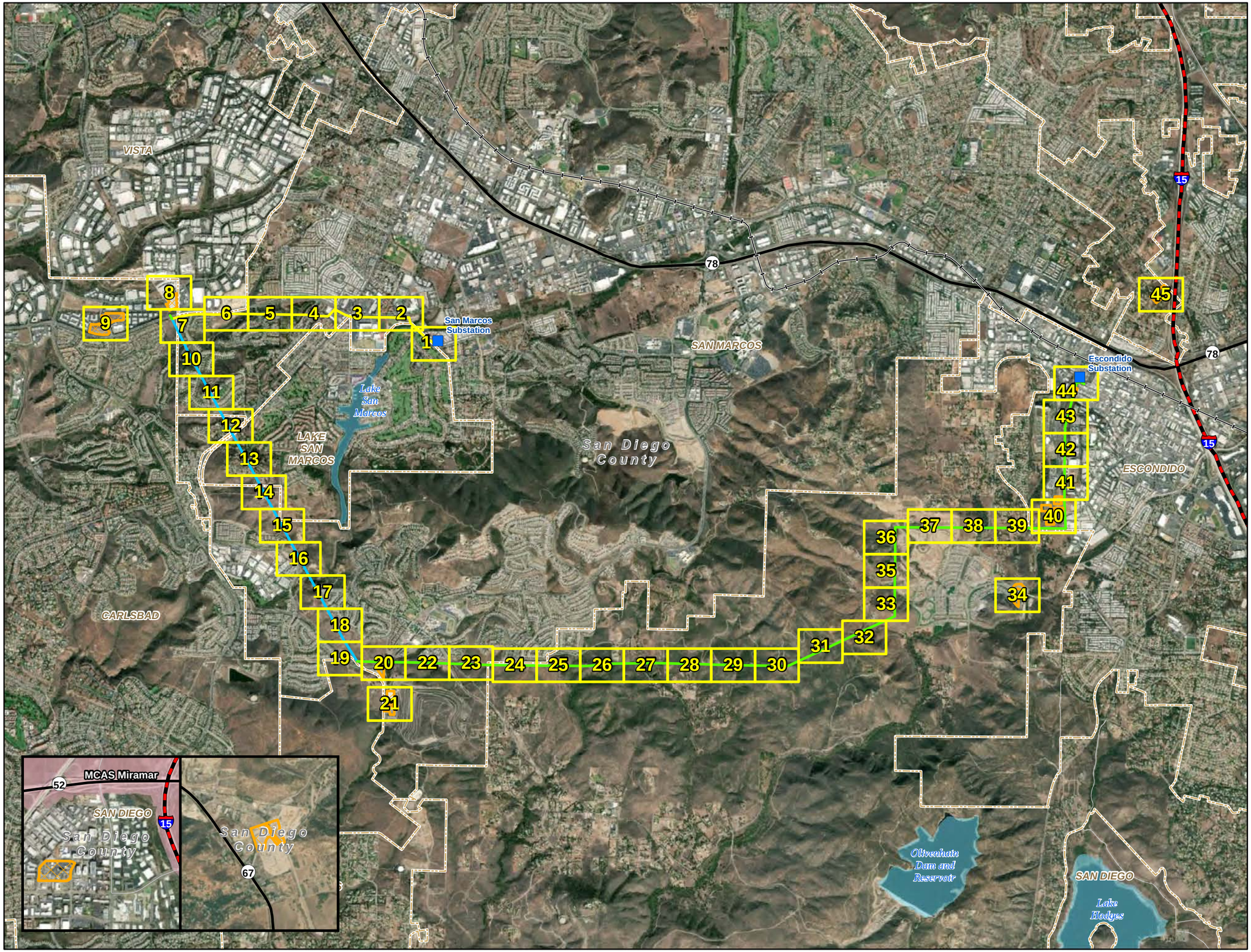
Appendix A.2: SDG&E's Revised Mapbook

TL6975 San Marcos to Escondido Appendix 3-A Power Line Route Mapbook



Legend

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Staging Yard

General Features

- Existing Substation
- Interstate
- State Highway
- Railroad
- City Boundary
- County Boundary
- Waterbody
- Mapbook Page

0 1,000 2,000 3,000 4,000 5,000

Feet

SDGE

A Sempra Energy utility®

TL6975 San Marcos to Escondido Appendix 3-A Power Line Route Mapbook

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200

Feet

TL6975 San Marcos to Escondido Appendix 3-A Power Line Route Mapbook

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200

Feet

TL6975 San Marcos to Escondido Appendix 3-A Power Line Route Mapbook

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

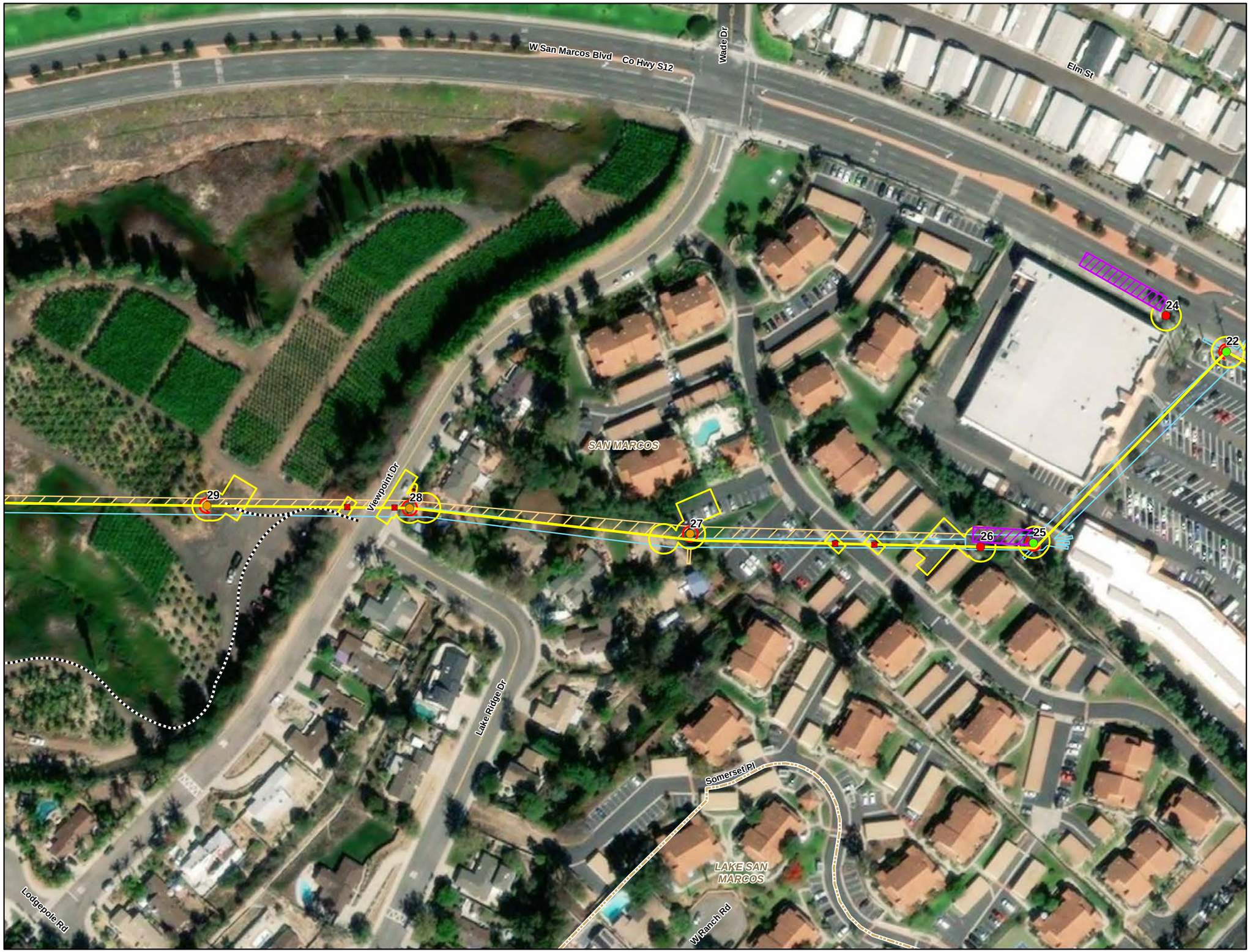
- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

General Features

- Interstate
- State Highway
- Railroad
- Existing Substation
- City Boundary
- County Boundary

0 100 200

Feet



TL6975 San Marcos to Escondido Appendix 3-A Power Line Route Mapbook

Legend

Project Structures

- Replace existing with pier foundation
- New pier foundation
- Replace existing with direct bury
- New direct bury
- Overhead Work
- Overhead work / anchor work
- Existing structure re-energize conductors
- No work / information only
- Remove From Service
- Rack
- Guard Structures

Project Alignment

- Segment 1 - Rebuild
- Segment 2 - New Build
- Segment 3 - Reconductor

Project Features

- Existing Access Road
- New Permanent Access Road
- Distribution Trench
- Stringing Site
- Permanent Work Area or Grading Impacts
- Temporary Work Area or Grading Impacts
- Staging Yard
- Existing ROW
- Alignment in Franchise
- Approximate Additional ROW Required
- New Permanent Spur Road

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0 100 200

Feet

TL6975 San Marcos to Escondido Appendix 3-A Power Line Route Mapbook

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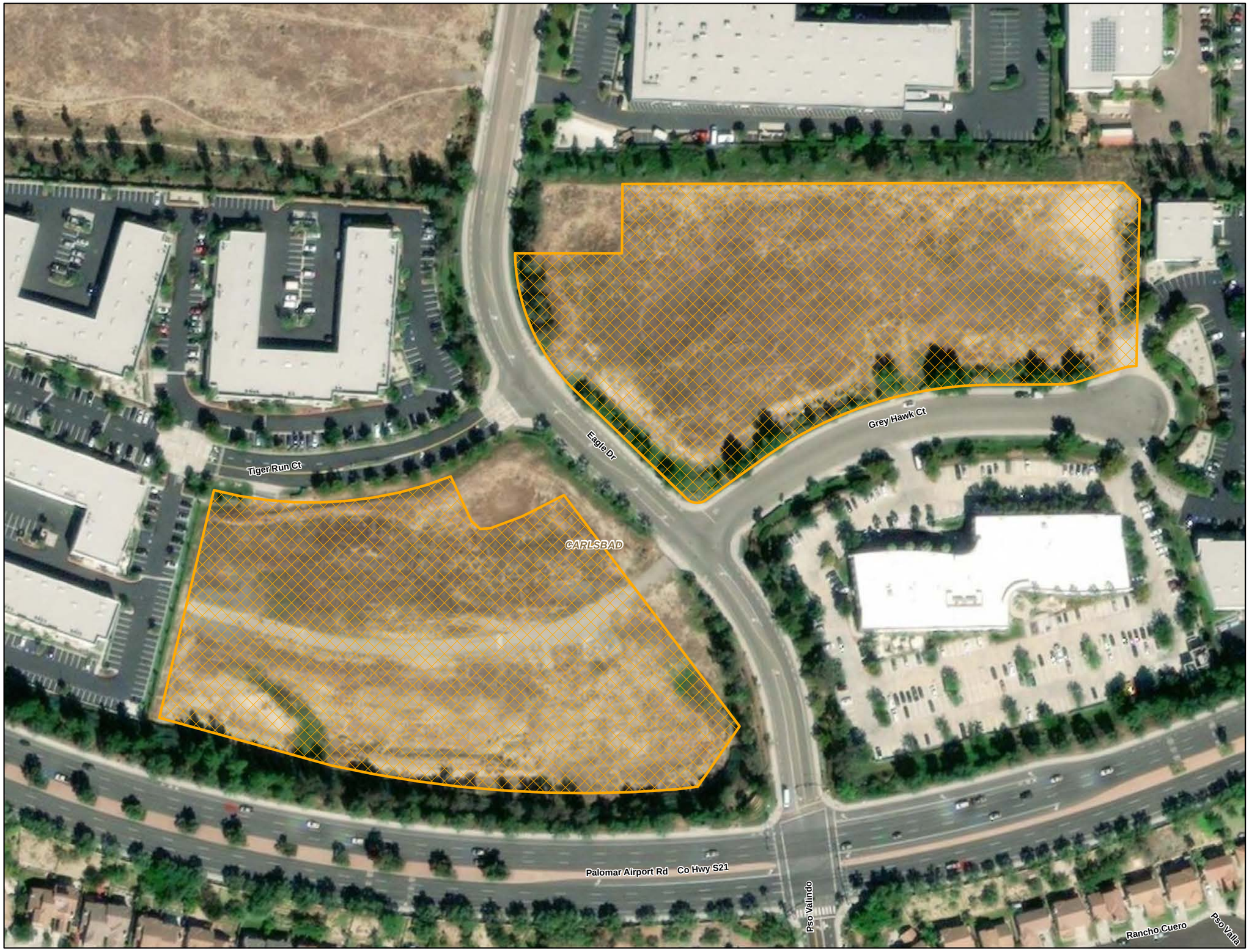

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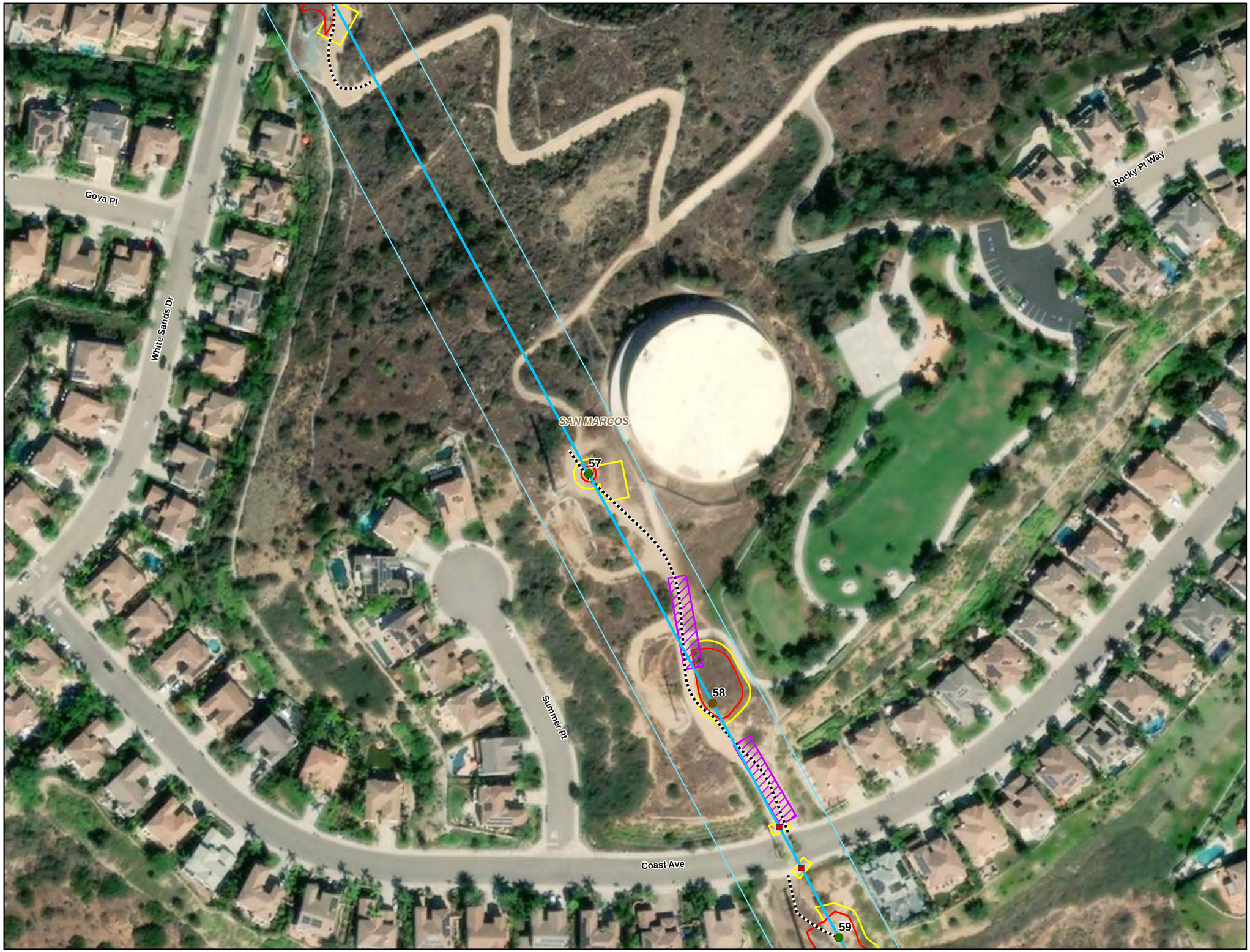

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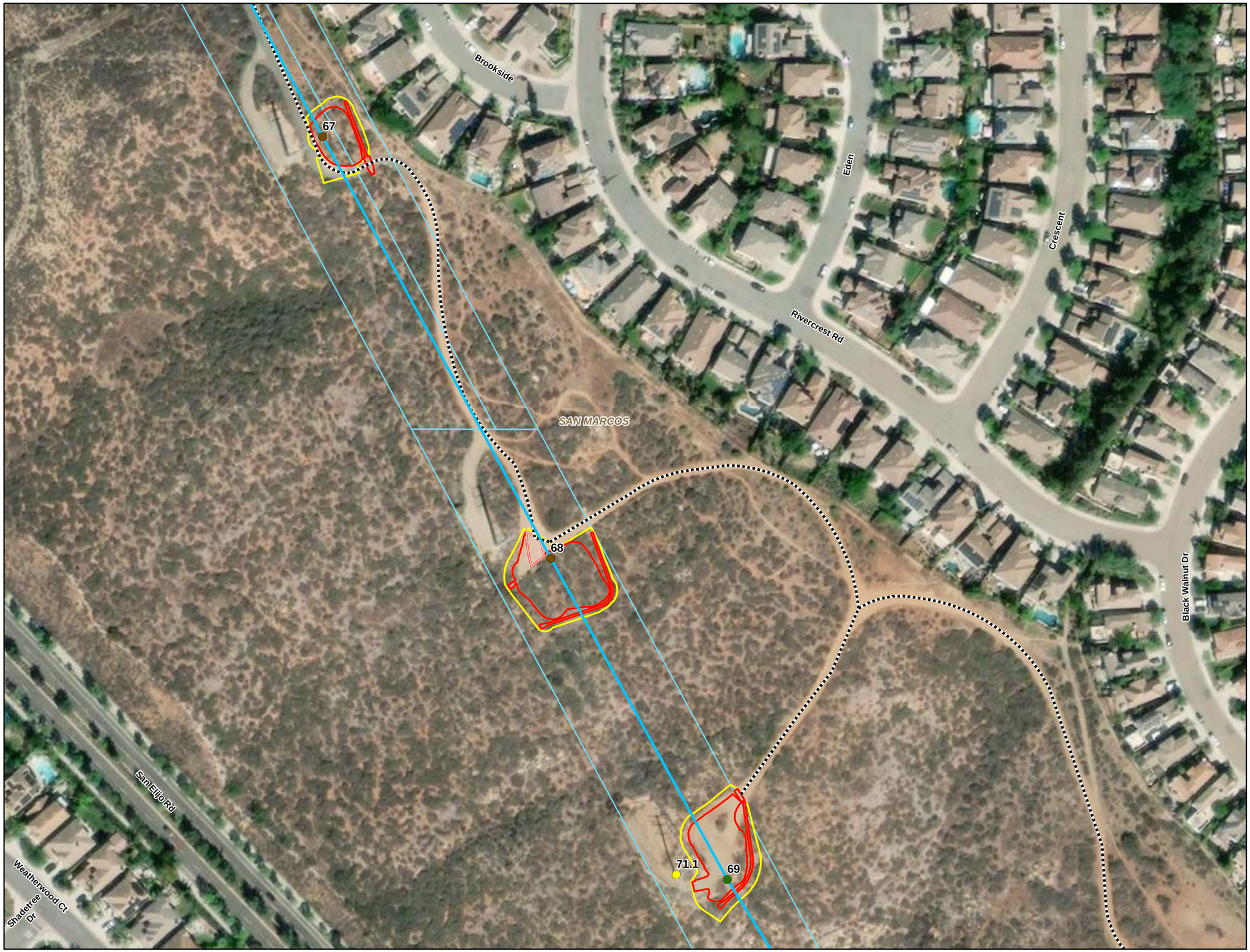

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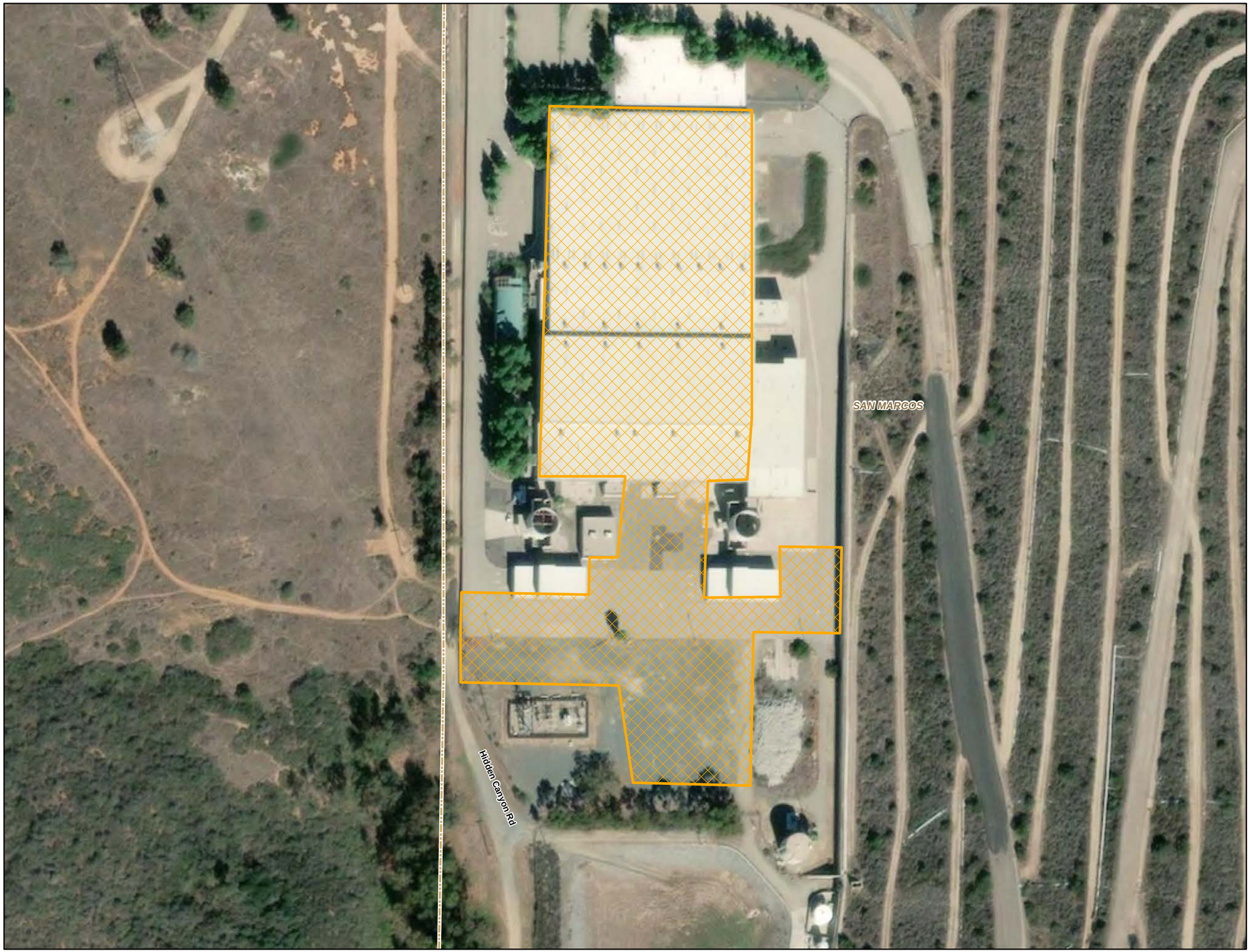

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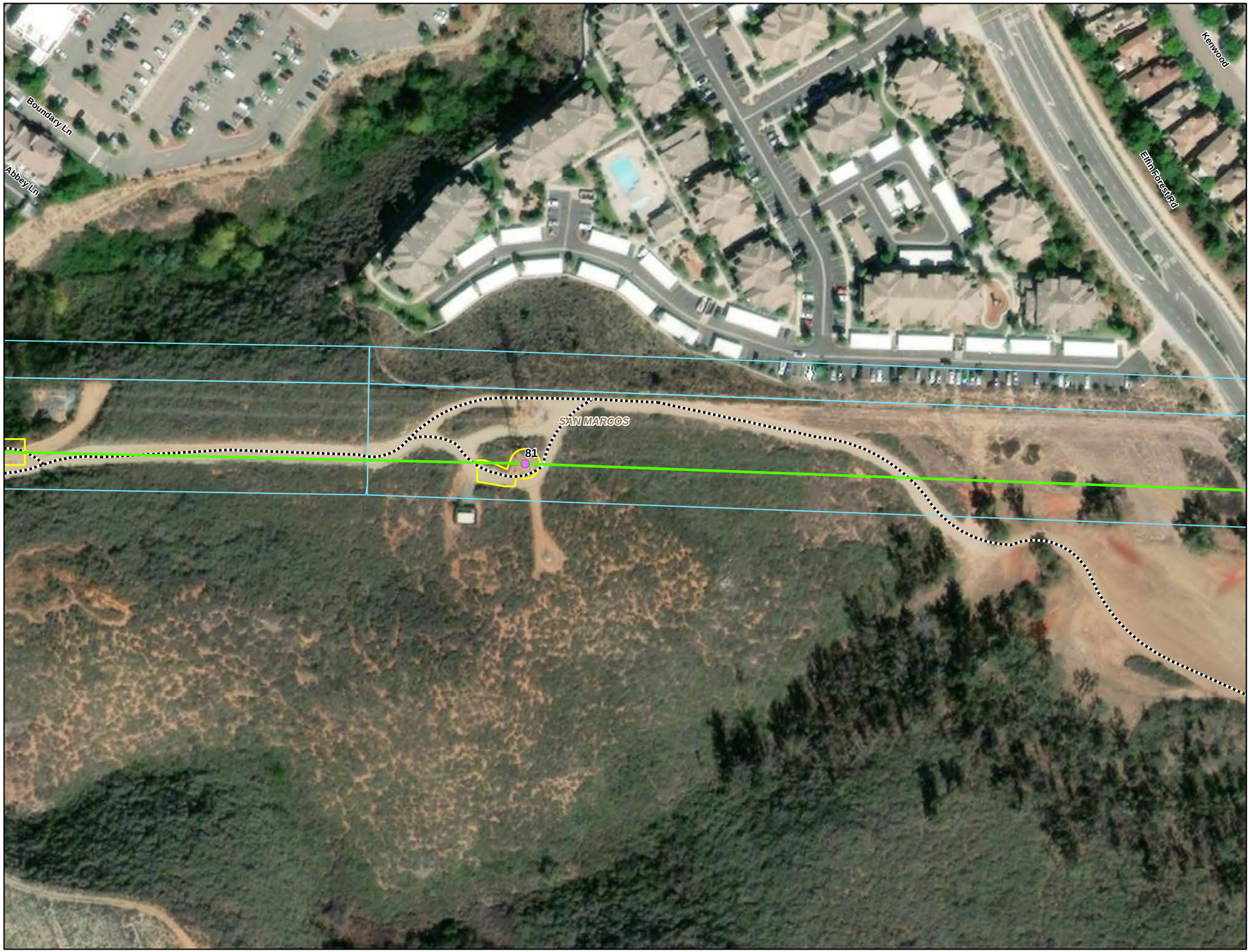

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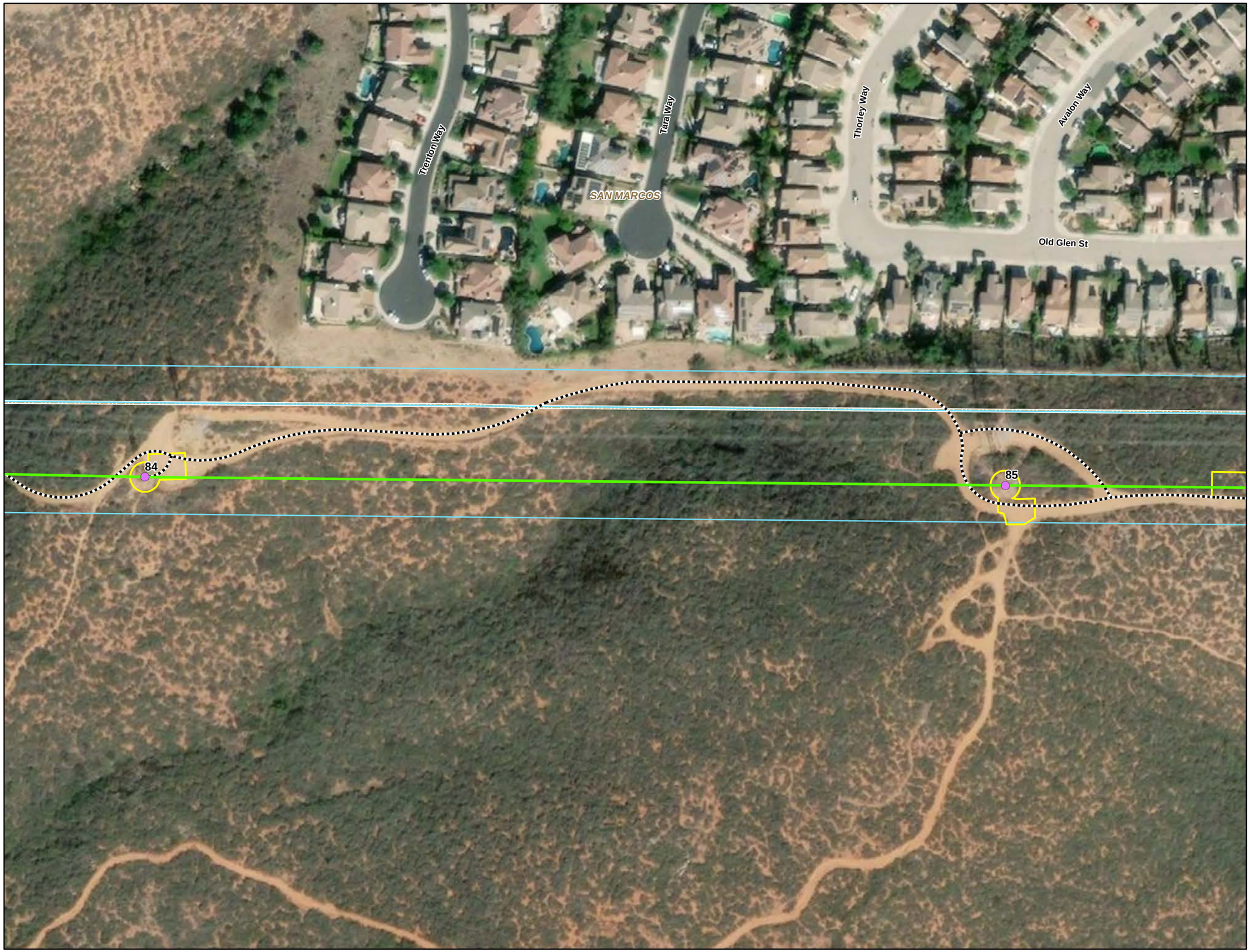

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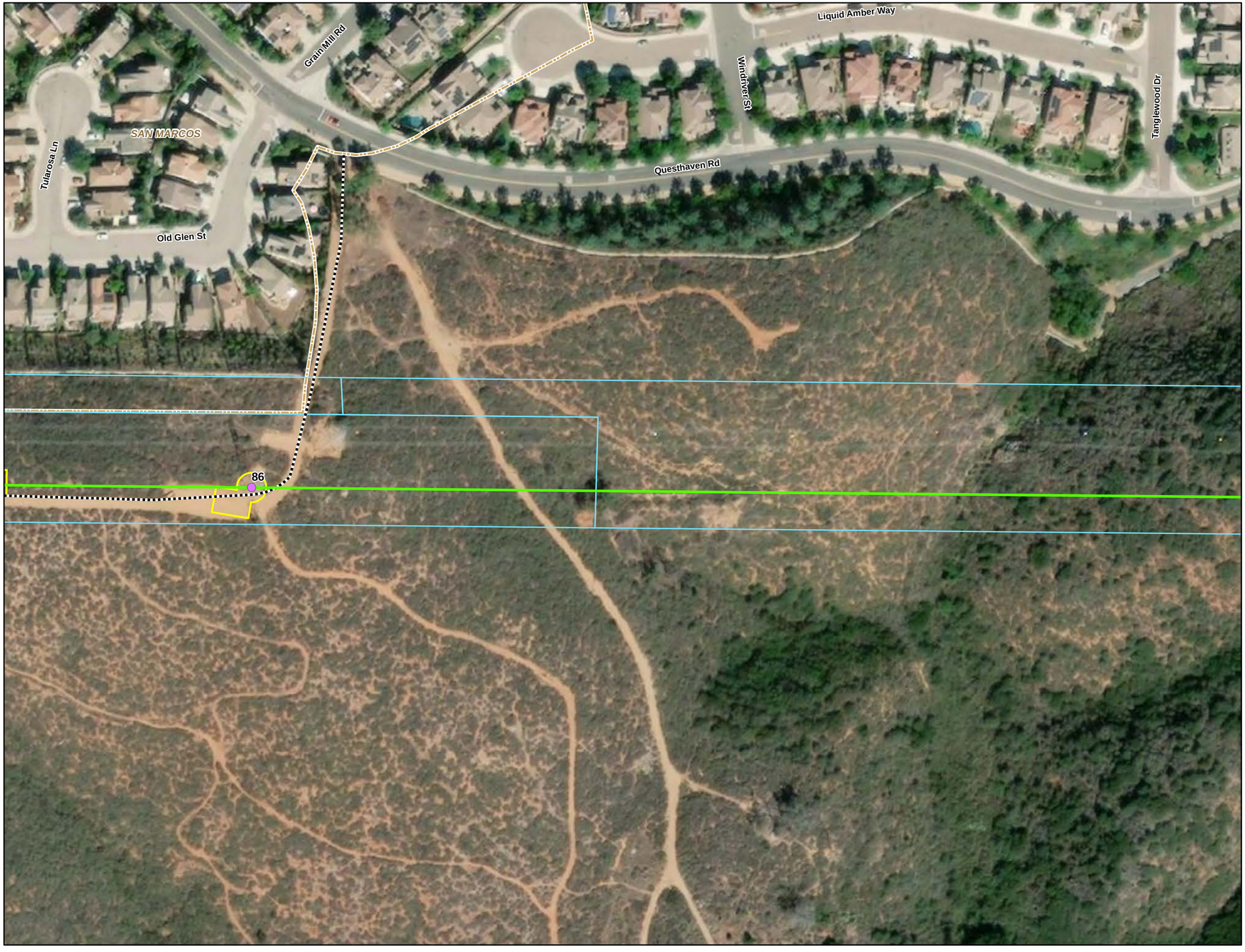

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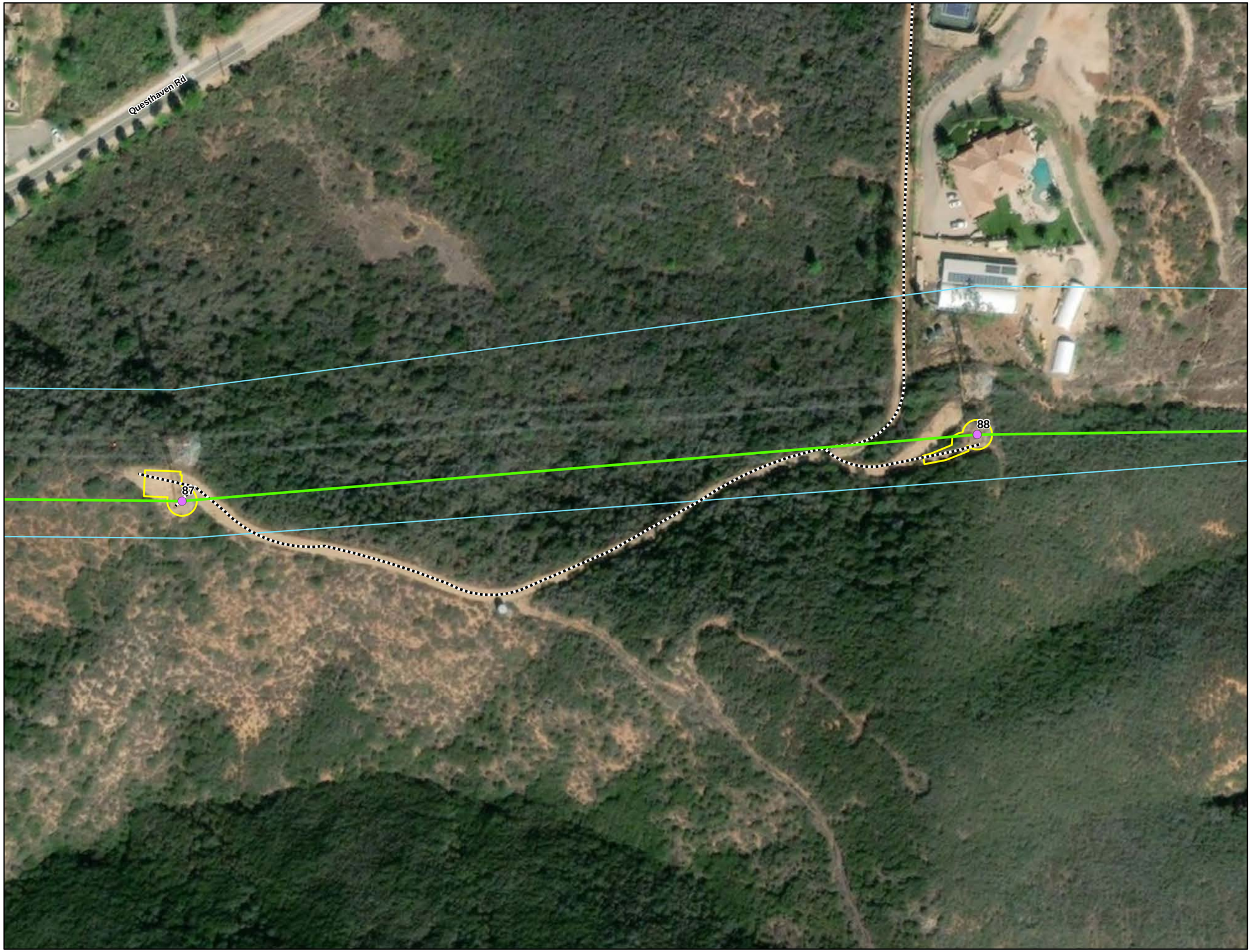

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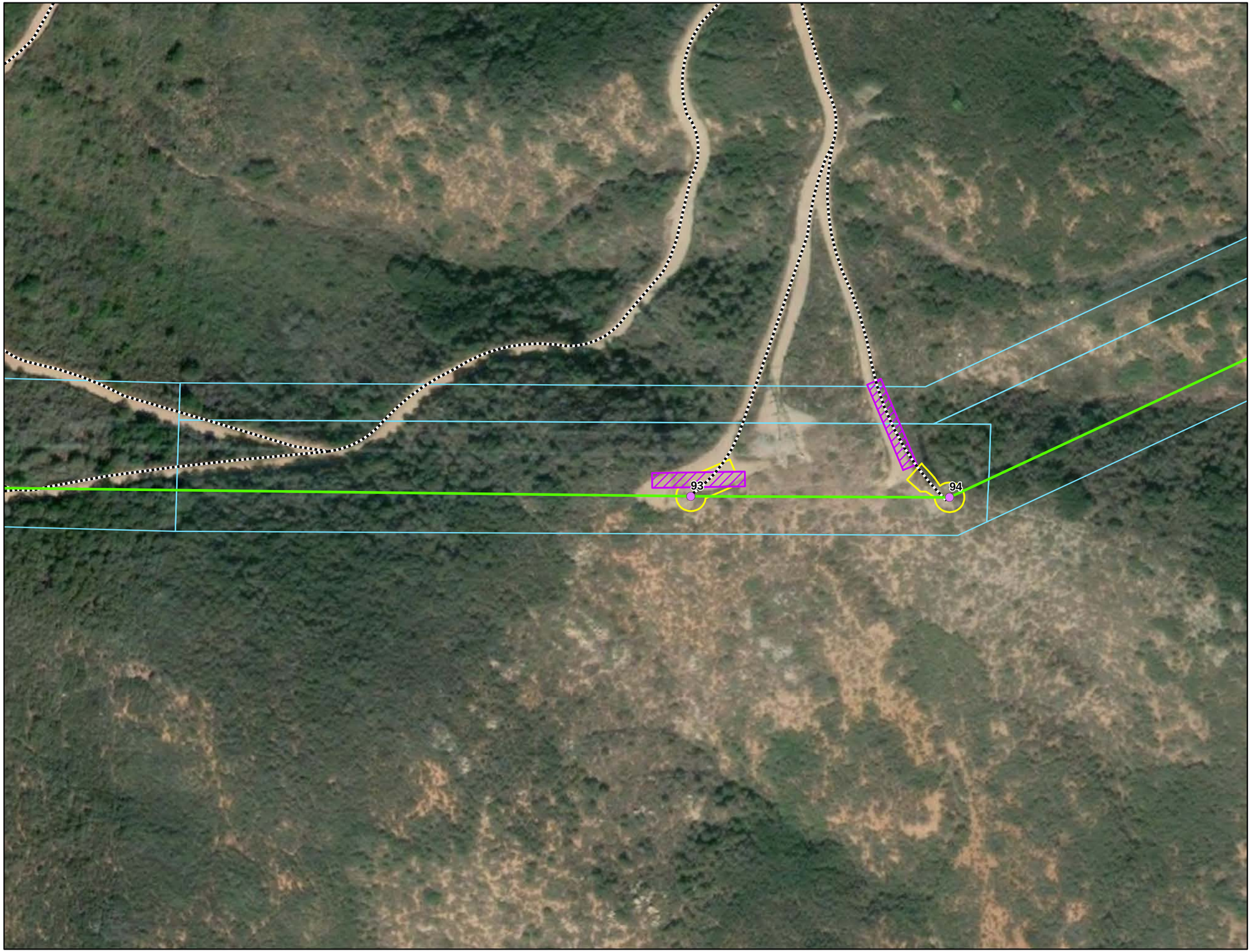

TL6975 San Marcos to Escondido Appendix 3-A Power Line Route Mapbook

Legend

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SDGE

A Sempra Energy utility

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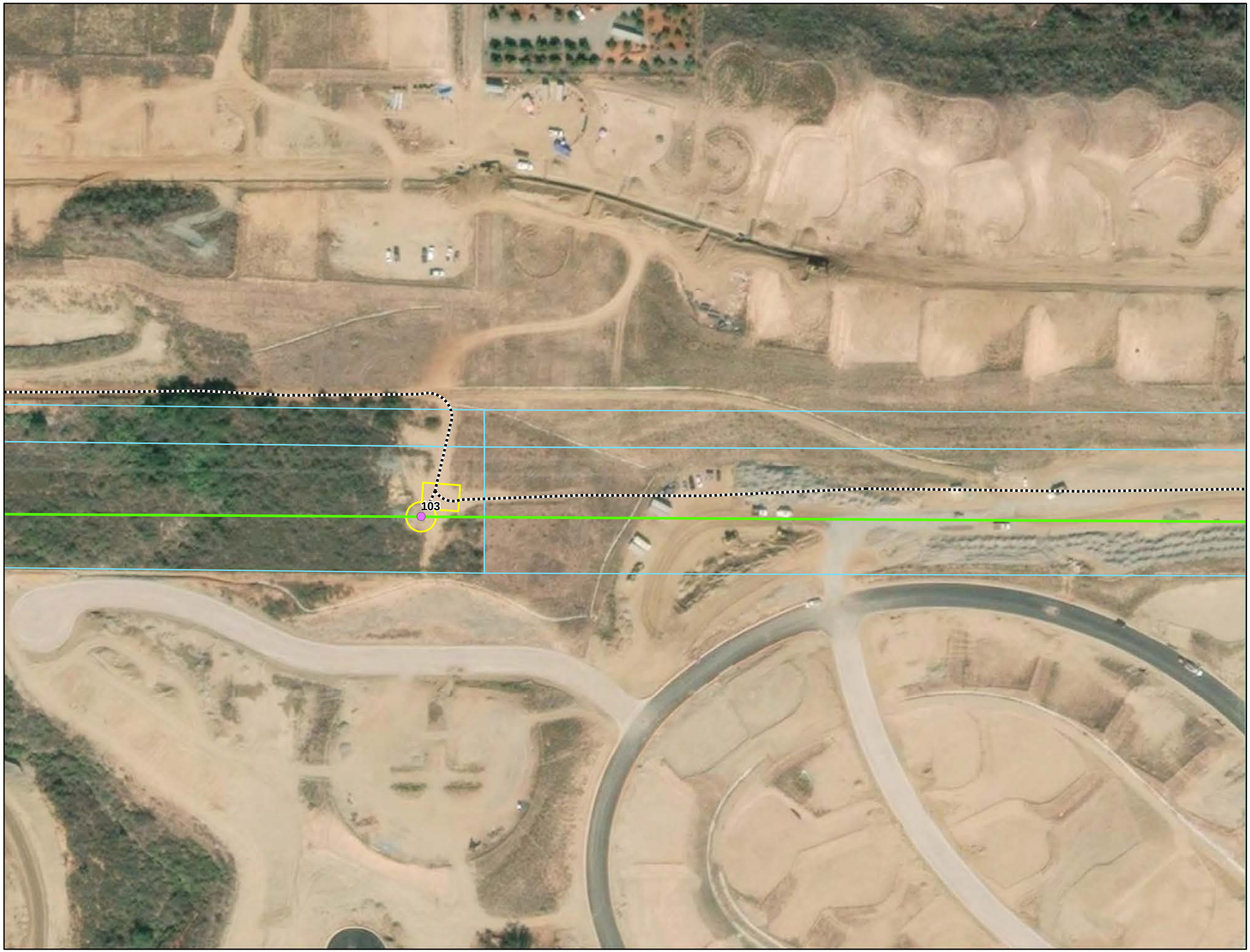

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Kauana Loa Dr

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Harmony Heights Rd

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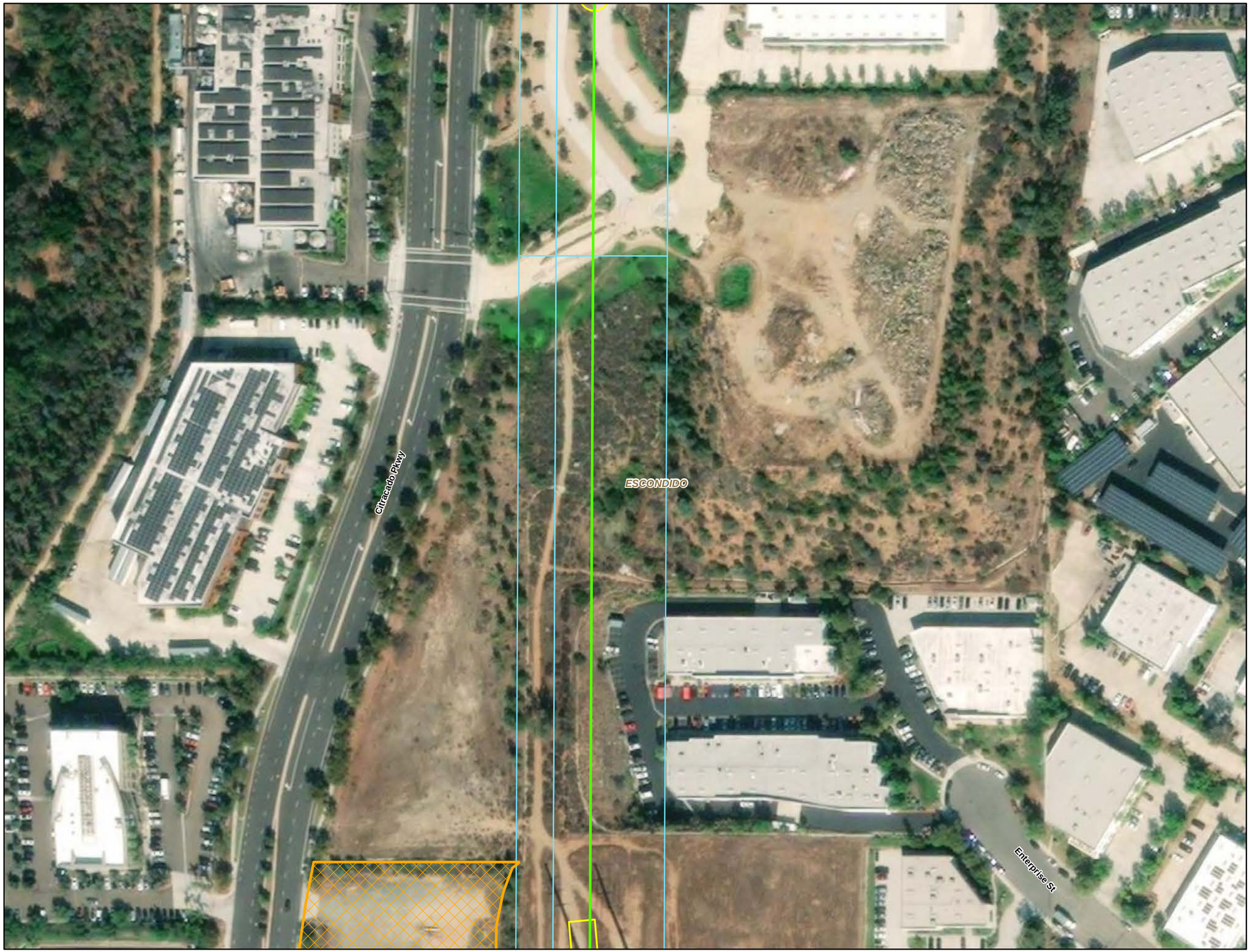

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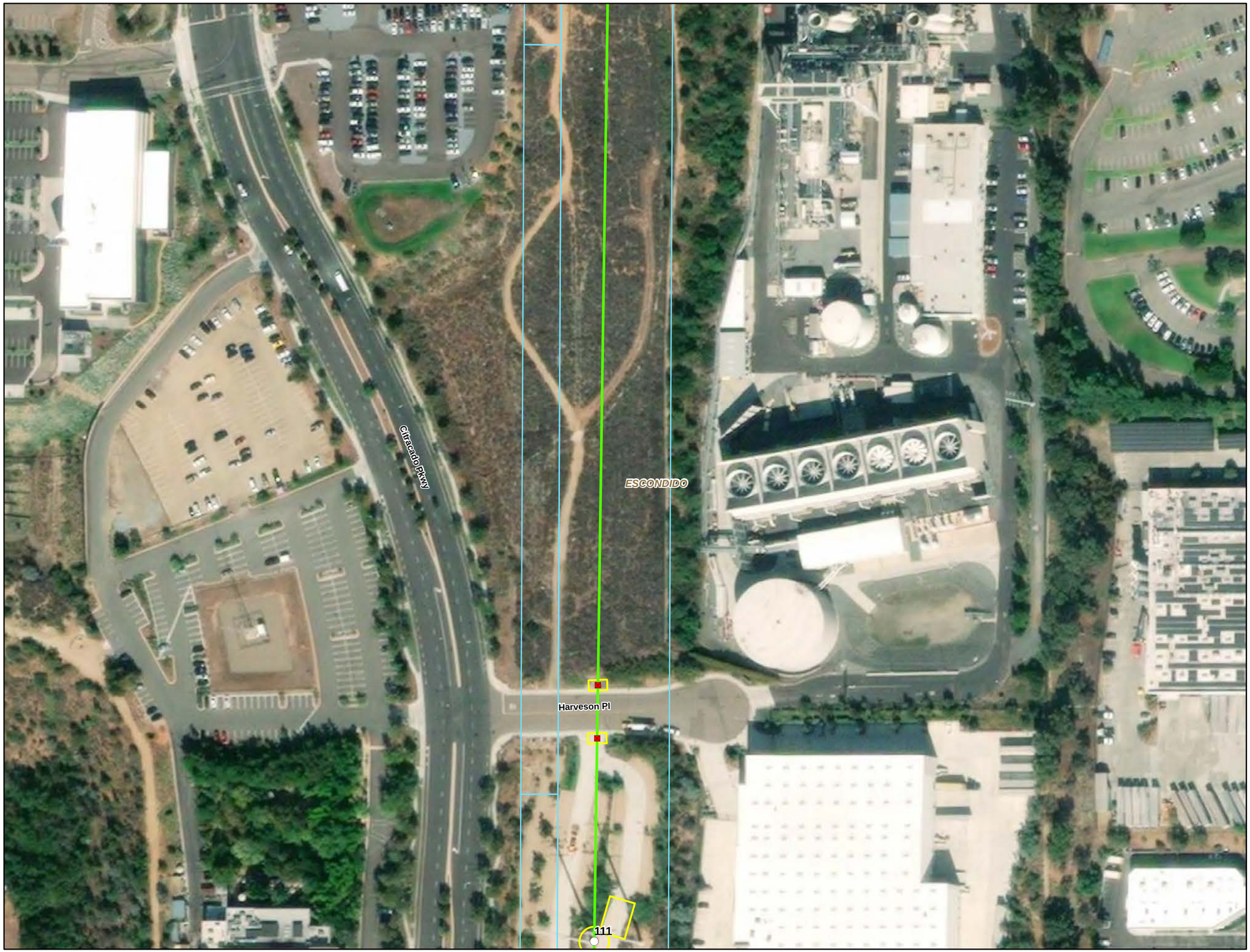

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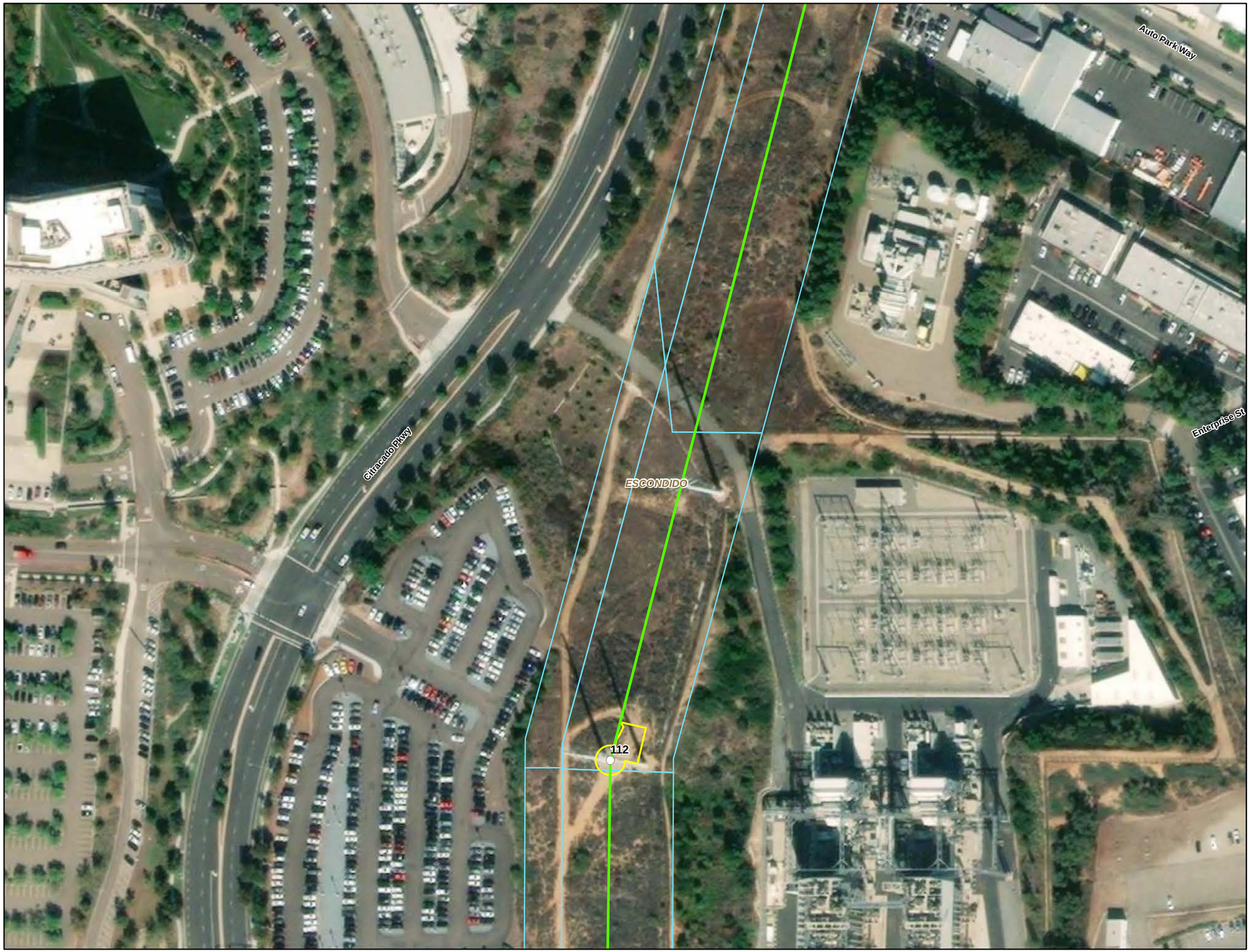

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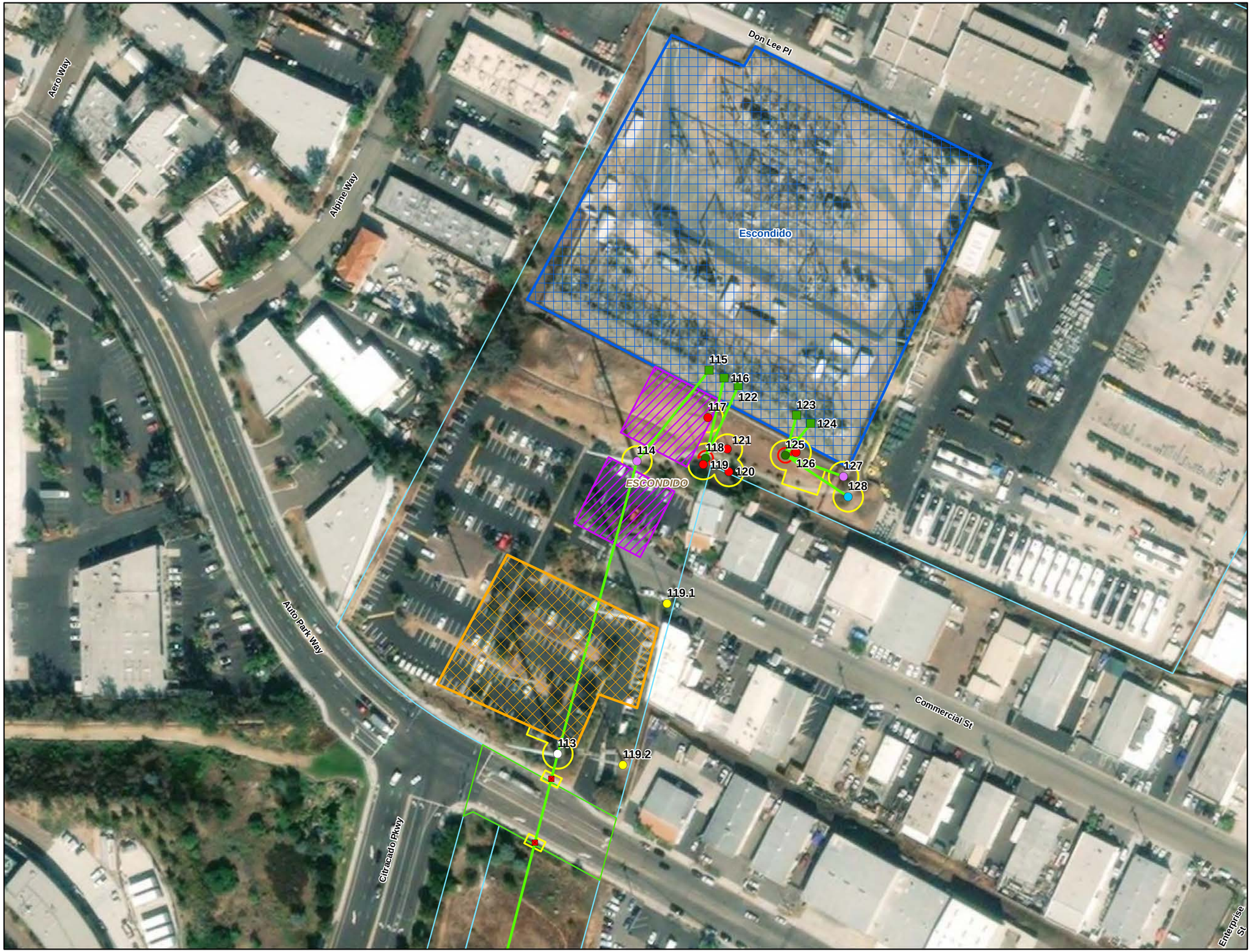

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Feet

Appendix B
General Comments, Attachments, and Petition

Appendix B.1: General Responses to General Comments Table

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS

Name	Comment	Response
Steven Ackroyd	Due to concerns of docmented wildfires started by power lines by Cal Fire investigations I feel it is necessary to bury the proposed power lines. The added cost to bury power lines in lieu of above ground power lines would far outweigh the destruction to human life, homes and wildlife. San Elijo Hills is a high risk fire zone. http://www.readysandiego.org/wildfire-hazard-map/. Starting now all new power lines should be underground to save lives, protect homes and keep North Counties natural beauty!	Your preference for underground power lines and concerns regarding wildfire and wildlife are acknowledged. Please see Master Response 2, Wildfire and Section 3.4, Biological Resources for all other concerns regarding wildlife.
Antonia Adamopoulos	As a resident of Calistoga/San Elijo Hills since 2002, I am writing in support of the overwhelming number of residents to reiterate that these new SDGE lines be run underground. Concern for the safety and health of the residents and the public should be of primary consideration when reviewing this project. We are already at very high risk for fires, and evacuation has been extremely challenging when previously ordered in the past. Cal Fire investigators this summer said they believe at least 17 major wildfires in Northern California last year were caused by problems with power lines. It has been acknowledged by state regulators that the state's 176,000-mile system of overhead electrified lines has played a role in igniting some of the biggest and most destructive fires in recent years. The known health risks from living in close proximity to power lines have been substantially documented and are undeniable. Not just our health and safety are threatened, the overall aesthetic of our community and our property values are sure to decline. Putting these lines underground is the best and only option to protect, preserve and respect those of us who live in this beautiful community, and those who visit and support it. Thank you for your consideration.	Your preference for underground power lines and concerns regarding aesthetics, wildfire, and human health are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; and Master Response 3, EMF and Operational Noise.
Melissa Adams	I would like an EIR	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Dave Agena	There are many reasons to oppose overhead wires due to: 1. Potential fire hazard in an area that is vulnerable to wild fires 2. Loss of affordable fire insurance 3. Potential health problems due to EMFs 4. Visual pollution which will affect the overall aesthetics of the area 5. Decline in property values due to all the above My greatest concern is the potential LOSS OF LIFE when the next wildfire occurs and the lack of access routes to and from Aliso Elijo Hills. Although SDGE can do nothing about our traffic configuration, they can be sensitive to our unique layout and do everything necessary to preclude another fire disaster (like the one in Paradise) by BURYING THE POWER LINES. Thanks for your consideration. Dave Agena	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, evacuation routes, human health, insurance, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues
Dave Agena	I failed to post the last 2 comments I made because of a glitch in the system (or my "fat finger" error). Aside from all the previous listed downsides of utilizing overhead Powerlines vs. Buried, I think it would be prudent on both sides if an impartial EIR was conducted so we could legitimately compare the pros and cons and if the additional expense of buried lines would more than compensate for the long term damage overhead may and can create. Another question to ask is if large, steel towers caring overhead powerlines are something you would want in your neighborhood? I think not. Cheers!	Your preference for underground power lines or another alternative is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process
Marina Agena	I have lived in San Marcos for over 10 years. I was immediately drawn to the area because of it's beauty and scenic walking paths. Constructing ugly steel power lines is an antiquated process resulting in visual pollution while creating unnecessary fire hazards for the entire area. Not to mention the dangers of EMFs. All of this will result in declining property values which will have a detrimental affect on this vibrant community that supports the services of SDGE. All of this could be avoided by installing buried power lines (for approx 5 miles vs. overhead for 12.5 miles) which has been done in all of our surrounding communities. I trust you will factor in a common decency approach as to the human toil in overhead power lines. Many thanks, Marina	Your preference for underground power lines or another alternative is acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.
Greg Agnew	As an engineer, well documented and presented. Map should be a bit better, however. In the absence of 'street's, it give the appearance of hiding impact.	Your comment is noted.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Sarah Ahmad	I would like an EIR (Environmental Impact Report. The health and safety of our community is very important to me.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Jennifer Aldrich	I would like an EIR done. This is unsafe for our community!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Seth Aldrich	Please prepare an EIR so viable alternatives can be thoroughly considered.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Maritza Alford	Dear SDG&E, I am writing this email to share my opposition and bewilderment regarding the proposed above ground power line expansion. The community of San Marcos and San Elijo Hills is considered a high risk fire danger zone with one of the most sophisticated fire departments atop of San Elijo Roads. Given the history with dry rush fires and now the addition of record rainfall in 2019 and over growth all of San Elijo – the power line explanation must be rerouted to a safer alternative below ground. My family and I were evacuated almost to the day of May 2014 and the potential loss of life and risk this places on our community is dangerous, reckless and should be considered Pre meditated murder if a fire should arise. A picture is worth a thousand words and this should not be our memory as residents as homeowners of San Elijo Hills (see below) therefore budgeting of below ground alternatives that reduce fire danger and EMFs that these “super towers” will emit needs to be stopped.	Your opposition, preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Responses 4, CEQA Process, and 2, Wildfire. See Appendix B.2 for comment attachments.
Erin Algie	"I want an EIR on TL6975"!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Sally Allain	As a home owner in San Elijo Hills we are highly against the plan for new power lines in planning. Additional power lines would create the potential for additional hazards to our community, and increased safety concerns during high winds in fire season.	Your preference for underground power lines and concerns regarding wildfire and human health are acknowledged. Please see Master Responses 2, Wildfire, and Master Response 3, EMF and Operational Noise.
George Allison	Please prepare an EIR so viable alternatives can be thoroughly considered	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Amy Allred	I don't want the power lines in my neighborhood.	Your opposition to the proposed project and preference for underground power lines or another alternative is acknowledged. Please see Master Response 4, CEQA Process.
Udaya Amancharla	I am AGAINST the current plan of SDG&E plan to with go with the poles. I would ask SDG&E to change the plan to go with UNDERGROUND cables.	Your opposition to the proposed project and preference for underground power lines or another alternative is acknowledged
Diana Amore	I want an EIR done before any new projects. Thank you, Diana	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Ellen Amsterdam-Walker	Our community is immediately adjacent to the proposed Segment 2-New Build. This part of the project will double the number of steel transmission poles and overhead power lines. This will significantly and negatively impact the aesthetics and views from our homes and from nearby city-owned Simmons Family Park and hiking trails. Equally impacted significantly and negatively will be our health, safety, and property values due to the heightened fire risk from having more high-voltage power lines running through our canyons and open space.	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, human health, and property value are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues
Evangelia Androulaki	I want an EIR on TL6975	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Judy Anibaldi	Let's see an EIR Environmental Impact Report, before this happens.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Anonymous	I'm a homeowner who backs up to the hill with the current power lines. I am asking, requesting, pleading, demanding that a different solution be provided for these new power lines. My family's livelihood for home value and safety should not be compromised by these new lines - there are other, safer ways to provide this.	Your opposition to the proposed project and preference for underground power lines or another alternative is acknowledged. Please see Master Response 4, CEQA Process
Anonymous	I want an EIR on TL6975	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Anonymous	Concerned with environmental aspects of this so close to homes, canyon, there should be an environmental impact report.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Anonymous	Please conduct EIR	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Anonymous	10 years ago blood levels of lead under 10 were acceptable, today that level has been dropped to 4. Same thing with cholesterol 8 triglyceride level. So my question is how do you guarantee that doubling the amount of EMF will not affect our community in ten years from now. Do you have any well designed study to assure us that our children are safe?	Your concern for human health has been acknowledged. Please see Master Response 3, EMF and Operational Noise.
Angie Anonymous	Dear CPUC, These aboveground powerlines will put tremendous fire risk for our community. Please evaluate and conduct Environmental Impact Report. Please consider alternative and more safe underground powerlines proposal. Thank you. Angie	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire
Karina Anonymous	Please prepare an EIR so viable alternatives can be thoroughly considered especially underground options. We are highly concerned about wildfire threats in this neighborhood.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process
Kristin Appleton	Unsafe and illegal outside of the US to have power lines close to houses and schools.	Your statement is acknowledged.
Isa Araneo	Please direct SDG&E to perform a full EIR to explore alternatives to TL 6975. Proposed power lines will increase wildfire risk in San Elijo HIlls which has very limited evacuation routes.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process. See Appendix B.2 for comment attachments.
Matthew Archer	Prepare an EIR so alternatives such as undergrounding can be considered that will significantly reduce the effects on the environment. It is worth the additional cost to not increase our wildfire risk, or to not destroy the aesthetics of our beautiful neighborhood, or to not cause millions of dollars to be lost in property values.	Your preference for underground power lines and concerns regarding wildfire, aesthetics, and property values are acknowledged. Please see Master Responses 1, Aesthetics, 2, Wildfires, 5, Non-CEQA Issues. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.
Matt Archer	Please Prepare an EIR so alternatives such as undergrounding can be considered that will significantly reduce the effects on the environment. It is worth the additional cost to not increase our wildfire risk, or to not destroy the aesthetics of our beautiful neighborhood, or to not cause millions of dollars to be lost in property values.	Your request for an EIR, preference for underground power lines, and concerns regarding wildfire, aesthetics, and property values are acknowledged.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Salvador Arditti	I am a resident of San Elijo Hills in San Marcos, I am very concerned about the new proposal of SDG&E to double the amount of power lines to be installed bordering our neighborhood. Just yesterday it was officialy announced that the paradise fire was created by power lines from PG&E. We do not have the correct infrastructure and evacuation roads in case something like that happens. Please please, seek alternatives to to this project. Please bury the power lines underground. Thank you.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process
Salvador Arditti	I am a resident in the city of San Marcos, (San Elijo Hills community). Based on the recent fires near my home, and the fire that cost the lives of at least 86 people in Northern California…due to electrical lines, I want TL6975 project to conduct and environmental impact report in order to study who will be impacted by the proposed above ground electrical lines and determine if it would pose a public safety issue.	Your request for an EIR and concerns regarding wildfire and public safety are acknowledged. Please see Master Response 4, CEQA Process and 2, Wildfire.
David Arendse	Please prepare an EIR so viable alternatives can be thoroughly considered. Thank you.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Lindsay Armstrong	We want an EIR.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Jason Arnotti	This is invasive to our habitat and a huge eye sore that will devalue property and land.	Your concerns regarding aesthetics and property value are acknowledged. Please see Master Responses 1, Aesthetics; and 5, Non-CEQA Issues.
Ann Arriagada	An EIR (Environmental Impact Report) needs to be completed. The health and safety of our community depends on it! When we were house hunting houses with power lines near them were automatically marked off our potential homes list. We cannot add more lines and decrease the value of homes in or area. These lines also add fire risk to an already high fire risk, densely populated area. The lines would put tens of thousands of lives at risk, a risk that could be avoided by putting the lines underground. That move would also have no negative impact on property values of our neighborhoods.	Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.
Mona Athalye	I want an EIR on TL6975	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Beverly Aue	Please conduct an EIR on SDG&E's project	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Lisa Avellino	Reason these power lines should go underground - Increase potential WILDFIRES concerns - Create unnecessary health risks for our children due to increased EMFs along the 12-mile route - Decrease our property values (some more than others but we will ALL be impacted) - Negatively impact habitat for some of our local sensitive species - Negatively impact the aesthetic nature of our homes and community - Potentially impact cultural resources buried along the route	Your preference for underground power lines and your opposition to, and concerns regarding, the proposed project have been acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues. For all other concerns regarding wildlife refer to Section 3.4, Biological Resources in the Draft IS/MND.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Ana Aylmer	Dear CPUC, Thank you for all you do for our community, for your vision and for your the many thankless hours you spend working on our behalf. A couple of weeks ago my family and I attended the California Public Utilities Commission meetings (two in one day) and left frustrated and defeated. It seems that SDG&E is looking to install much larger and powerful power lines through our community including the San Elijo Hills canyon. As you know, our canyon is made up of wild material which is perfect for wildfires that spread quickly under tough fighting conditions. The chances of these much more powerful power lines sparking a fire due to high winds, earthquakes, general weather, mylar balloons, metal objects being tossed at the cables, general acts of terrorism, etc. is of great concern to us. At this meeting, many residents spoke against this project and asked for the commission to look into underground power lines, which currently is not even being considered even though the surrounding areas to this project have them. San Elijo Hills was built on a mountain with only one road in and out - San Elijo Rd/Twin Oaks. There are now about 3,000 houses on this hill with more recently approved for construction. Our local schools house about 5,000 students from daycare to 8th grade (so younger than 14 years old). We barely survived two fires with the most recent one coming dangerously close had it not been for the miracle of a change of wind pattern. We simply can't put so many lives at risk. Did you know that our schools are "Shelter In Place schools"? That means that when a fire is reported in our hills, they SHELTER IN PLACE. Would you want your kids waiting and hoping for the fire to stop before it gets to them? Even if the fire did stop, how do you deal with the emotional trauma? Even if they could get out of the school, where would they go? We live in high fire danger zone all around us. Last fire proved that our roads are not escape routes as residents were stuck for hours unable to move and escape our hill. I urge you to please take a look at this SDG&E Project closely. We don't have many days in which to act and request a study of the underground power lines. We must prove there is a SIGNIFICANT reason why the current Environmental Report is inaccurate/inappropriate. The fact is the power lines will increase our fire risk significantly and will prove a SIGNIFICANT liability to all involved. Paradise Hills in Northern California just went through a fire that honestly could have been us. Their power company is being sued to the point that it had to file for bankruptcy. In the long run and any way you put it, it is much cheaper to do this project right and bury the electrical cables. Sincerely, Ana Aylmer	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire
David Aylmer	I am writing to you in the hopes of providing yet another voice of opposition for the SDGE project that will put an additional power pole adjacent to the ones already in place. I would like to see a feasibility study to determine if going underground is an option. Safer for all.	Your opposition to the proposed project and preference for underground power lines or another alternative is acknowledged. Please see Master Response 4, CEQA Process.
Ashley Ayres	I want an EIR	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Leah B	An EIR must be prepared so alternatives such as undergrounding can be considered that will significantly reduce the effects on the environment. It is 100% WORTH the additional cost to not increase our wildfire risk, or to not destroy the aesthetics of our beautiful neighborhood, or to not cause millions of dollars to be lost in property values. I've lived here 15 years and have seen the dangers of wildfire first-hand several times. You do not want to be responsible for another disaster that could be deadly.	Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues. Your
Jonathan Babad	Please do not add more above-ground power lines! They are unsafe to our community full of young children. Look at what has happened with downed power lines and fires throughout our state over the years. Any new power lines should be built in ground. SDGE should adapt. The homeowners and families in the area should not be penalized!	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process
Mary Backer	I want an EIR on TL6975	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Robert Baggerly	I demand an environmental impact report regarding the idiotic metal transmission towers proposed to cut through our neighborhood - again. Very dangerous to health of residents in our community Stop!!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Shana Bagherian	Please conduct an EIR on SDG&E's project. We have concerns over emf and poles disrupt view, bringing down home values.	Your concerns regarding aesthetics, EMF, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 3, EMF and Operational Noise; and 5, Non-CEQA Issues.
Ray Bahadori	Please prepare an EIR so alternatives such as undergrounding can be considered that will significantly reduce the effects on the environment. It is worth the additional cost to not increase our wildfire risk, or to not destroy the aesthetics of our beautiful neighborhood, or to not cause millions of dollars to be lost in property values.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process
Devon Bakewell	Please look into the environmental implications as the open space is one of the few wildlife corridors in North County!	Your statements regarding the proposed project have been acknowledged.
Therese Balbo	My name is Therese Balbo and I am writing you today to request that an Environmental Impact Report (EIR) be prepared for the San Diego Gas and Electric San Marcos to Escondido Tie Line 6975 69kV Project. The proposed SDG&E powerlines traversing the Rancho Dorado (and neighboring Brighton Ridge) and San Elijo Hills developments will have significant negative effects for both residents and the environment. Most concerning to me personally is the risk of fire danger. In addition, safety, aesthetics and property values are chief concerns that are not reflected in the SDG&E proposal. This new powerline will: Increase the potential for wildfire Decrease property values and negatively impact neighborhood aesthetics Possibly increase health risks I'm requesting that an underground alternative be studied and that a comprehensive budget analysis be completed to compare the cost of undergrounding as an alternative. Some of my neighbors across the street from me received notification of this project in the mail. Unfortunately, I did not receive any notification and neither did several of my neighbors. I am not sure why I did not receive notification as I can clearly see the existing power lines from my house. If you could kindly respond and tell me why I was not notified, I would greatly appreciate it.	Your request for an EIR, preference for underground power lines, and concerns regarding wildfire, safety, human health, aesthetics, and property values are acknowledged. Please see Master Responses 4, CEQA Process; 1, Aesthetics; 2, Wildfire; 3 EMF and Operational Noise; and 5, Non-CEQA Issues.
Sharon Bangalan	Please conduct an EIR on SDG&E's protect	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Karen Banks	I am VERY concerned about the proposed overhead power lines expected to run through my community. I strongly OPPOSE this project unless the CPUC works with SDG&E to underground the power lines. This project puts thousands of people at risk for health issues related to living near these types of power lines not to mention the extreme fire danger this poses for our community. San Elijo has been evacuated TWICE due to wildfires and there are only two routes in and out of SEH. Adding power lines that pose additional fire danger to our community is UNACCEPTABLE. Please listen to the concerns of the homeowners affected by this decision, and insist that SDG&E revise the project to underground these lines. Thank you.	Your preference for underground power lines and concerns regarding wildfire and human health are acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; and 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Alexis Barbuto	Please consider alternative options of burying all future and current power lines in the community. We live in a high fire zone, we pay more for our home insurance because this area is nationally recognized as a high fire zone. There are literally 2 exit points only in this community comprised of thousands of homes and two schools that educate over 3,000 students during the school year. San Elijo Hills is surrounded by native chapparel vegetation that is extremely flammable. In addition, multiple times of the year the winds reach gale force and wind damage to our property alone has been devastating. San Elijo Hills area of San Marcos has experienced two major devastating fires in 2007 and 2014. The later fire created an over 2 hour evacuation wait and line out of the community. This was prior to the over 1,000 homes that have since been added to the community. It would be irresponsible and potentially deadly to add more above ground power lines in a densely populated, foothills area surrounded by flammable vegetation and prone to gale force winds. Please consider placing all power lines below ground for the safety of this community.	Your preference for underground power lines and concerns regarding alternatives and wildfire are acknowledged. Please see Master Responses 4, CEQA Process and 2, Wildfire.
Brandon Barbuto	Please consider alternative options of burying all future and current power lines in the community. We live in a high fire zone, we pay more for our home insurance because this area is nationally recognized as a high fire zone. There are literally 2 exit points only in this community comprised of thousands of homes and two schools that educate over 3,000 students during the school year. San Elijo Hills is surrounded by native chapparel vegetation that is extremely flammable. In addition multiple times of the year the winds reach gale force and wind damage to our property alone has been devastating. San Elijo Hills area of San Marcos has experienced two major devastating fires in 2007 and 2014. The later fire created an over 2 hour evacuation wait and line out of the community. This was prior to the over 1,000 homes that have since been added to the community. It would be irresponsible and potentially deadly to add more above ground power lines in a densely populated, foothills area surrounded by flammable vegetation and prone to gale force winds. Please consider placing all power lines below ground for the safety of this community.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process
Henry Barcelona	My wife has very effectively addressed this on several occassions. 1.major health risk to small children. 2.major health risk to cancer survivors and treating patients. 3.major health risk to migraine suffers. 4.health risk to all others not in these categories. 5.immediate cost to property values. 6.immediately once approved; resale loss in value to every property. Unrecoverable. 7. Insurance risk. Higher rates on home owners especially when placed in scrub area. Homeowners may not be able to get covereage. 8. INCREASED Possibility of a wild fire due to wind and arcing. We are vehemently opposed. My wife is a cancer survivor as a direct result from radio frequency. BURY THEM, SAVE YOURSELF THE FUTURE MULTIMILLION DOLLAR LAWSUITS.	Your opposition to the proposed project and your concerns are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.
Yvonne Barcelona	This is my second comment on this; first on this site. As with the previous comment; 1st highline wires are a health hazard to humans some more than others, specifically anyone who has had or is in the throws of cancer. It also is a formidable issue with persons with migraines issues. 2nd, There are several of us in direct line with the proposed lines that are cancer survivors. 3rd, I've lived less than 400 ft from highlines many years ago for over12 years. A recent trip past that home gave a startling new view on that issue; those huge lines were expanded upon so that they were now less than 200ft from my former home. Once in, there is no guarantee those lines were not expanded on in the future. The danger now is unacceptable under the current proposal. The future holds a huge questionmark, therefore not worth the danger on families. And 4th and finally but not the least important, but falls way below health, and that is the immediate drop in property values and the cost to resale values immediately once this is red stamped approved. No one wants to buy a home in direct line with a high power transmission line or lines. The buzzing of those lines is something you will forever be forced to live with once energized. As a cancer survivor a direct result from radio frequency from my job in law enforcement; having lived less than 400ft from hugh high voltage towers for more than a decade I oppose this on so many levels.	Your concerns regarding human health, property values, and wildlife are acknowledged. Please see Master Responses 3, EMF and Operational Noise; 5, Non-CEQA Issues; and 2, Wildfire. For all other concerns regarding wildlife refer to Section 3.4, Biological Resources.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Yvonne Barcelona (cont.)	To opt for the easy install rather than propose the underground installation to forgo obvious legal battles with the environmentalist, coastal sage scrub protectorate, the wildlife representatives and homeowners is a non starter. Coastal sagescrub can be reinstalled with an environmental expert. Wildlife will return. GOOD HEALTH once lost is lost forever.	
Yvonne and Henry Barcelona	We are Country Classics the Laurals residents. We are original owners of soon to be 26 years. In that time we have seen San Marcos Blvd expand to reduce cross town traffic and currently the infill of canyon across from us with a build up from that canyon to approximately 200ft. That construction necessitated the current road changes and the traffic pattern debacle which is certain to become a permanent fixture. The project has blocked ocean views from prime lots in Las Brisas reducing their property value, changed the ocean breeze direction and ultimately lead us to a view of 3 story boxes on the now new hill. You are now intending to install above ground transmission lines a guaranteed drop in property values immediately once red stamped approved. Never mind the financial devastation or the physical visual ramification; the most critical and crucial is the detriment to our health. I am a cancer survivor as are 2 other women I personally know, who would be directly in line site of this error in bureaucratic judgement. The home that I lived in from 1971 to 1982 had highlines approximately 400ft from my home, a recent drive past those lines were expanded to directly behind the properties across the street, less than 300ft. Closer to 200 ft from my then home. The fact that they can be and are a health hazard to many of us, the fact that they can be expanded upon once in place is a certain not even here in our book. There is only one reason this has not been suggested to be underground and that is the legal fight that would ensue due to the coastal sage shrub and the wild life corridor. You need to go back to the drawing board file for your environmental impact studies and get this project underground. Wildlife corridors can be reinstalled with appropriate environmental landscapers.	Your preference for underground power lines and concerns regarding aesthetics, property value, wind direction, human health, and wildlife corridors are acknowledged. Please see Master Responses 4, CEQA Process; 1, Aesthetics; 2, Wildfire; 3 EMF and Operational Noise; and 5, Non-CEQA Issues.
Alexis Barnes	Given the fires in 2014 and the SDG&E's history of power lines contributing to fires, I am adamantly opposed to the addition of these lines through San Marcos and Escondido. With only two evacuation routes through San Elijo, adding more power lines endangers residents and livestock. This isn't even counting the numerous studies showing the health dangers of living near power lines…and these are communities full of children.	Your concerns regarding wildfire and human health are acknowledged. Please see Master Response 2, Wildfire, and Master Response 3, Electromagnetic Fields.
Christopher Barone	I am requesting an environmental, fire safety and health review of the proposed installation of additional powerlines from San Marcos to Escondido TL6975 69kV. I live within 30 feet of where a fire in 2014 devastated my home. My family was scared and lucky enough to escape. I ask the SM City Council to take care of the human life in your community and request that these powerlines be installed underground. Thank you, C Barone	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process.
Stephen Barone	Prepare an EIR so alternatives such as undergrounding can be considered that will significantly reduce the effects on the environment. It is worth the additional cost to not increase our wildfire risk, or to not destroy the aesthetics of our beautiful neighborhood, or to not cause millions of dollars to be lost in property values.	Your preference for underground power lines and concerns regarding wildfire, aesthetics, and property values are acknowledged. Please see Master Responses 1, Aesthetics, 2, Wildfires, 5, Non-CEQA Issues. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Jennifer Bartholomew	Please redact my personal contact information. I am against the additional overhead power lines proposed by SDG&E in San Elijo Hills. The area already has a high risk of fire danger and additional overhead lines significantly increases the risk. If a fire breaks out in the area, residents may not even be able to evacuate. The last time the area evacuated for a fire, residents (including my family) were stuck in traffic gridlock for hours. A fire in the immediate area could be disastrous. SDG&E should put the lines underground in order to protect the safety of their customers during a high wind event.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process.
Tyler Bartholomew	I want an Environmental Impact Report completed. The health and safety of our community depends on it.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Vila Baskes	SEH is already pack with power line and towers with internet. And with wild zone area, we don't need more power lines to add in the community. Some of the lines are ready on top of houses. Add more dangerous to the community. Underground lines should come down here, if we need it more power lines.	Your preference for underground power lines is acknowledged. Please see Master Response 4, CEQA Process.
Kellen Bassler	I attended the public information event regarding this proposal, and I strongly disagreed with the assessment. These power lines already have an aesthetic impact on my community, and additional power lines will only make this situation worse. This impacts property values in our community. In addition, the recent fires in Northern California were caused by power lines. There is proof that there is a clear fire danger. Our neighborhood is surrounded by brush, and we have already been evacuated twice due to fires. In addition, there are Santa Ana wind events at least twice every year, a huge power line fire risk. These lines are directly under dry brush. I urge you to complete an EIR for this project. These power lines must be placed underground. Thank you	Your preference for underground power lines and concerns regarding aesthetics, wildfire, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.
Amy Bate	Please conduct an EIR on SDG&E's project	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Elliot Baum	My family and I moved into Rancho Dorado in 2004 when there were just small wooden poles that were hardly noticeable and then around 2010 we vividly remember the giant steel poles that were installed by helicopters and dynamite to blast away the rock to replaced the wooden poles. Now SDG&E is proposing to construct a second set of steel towers along side the first ones. This is turning our beautiful lush neighborhood into a possible fire hazard and not even a project that will benefit my community. You Please keep my communities and my concerns in mind when you make your final decision on this project. Thank you for you time and consideration.	Your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire
Elliot Baum	I am a concerned citizen and resident of San Marcos, specifically living in the community of Rancho Dorado directly adjacent to San Marcos Blvd where the proposed TL6975 69kV project. I am concerned that such large electric poles would not only be a fire hazard but also emit radiation. With all of the fire issues my community has had in the recent past causing significant damage to property, human and animal life, as well as businesses. If the current rout is to be used I would hope that the lines would be buried to eliminate the possibility of fire. Thank you for your time and consideration.	Your preference for underground power lines and concerns regarding wildfire and human health are acknowledged. Please see Master Responses 2, Wildfire, and Master Response 3, EMF and Operational Noise
Shannon Baum	My family and I moved into Rancho Dorado in 2004 when there were just small wooden poles that were hardly noticeable and then around 2010 we vividly remember the giant steel poles that were installed by helicopters and dynamite to blast away the rock to replaced the wooden poles. Now SDG&E is proposing to construct a second set of steel towers along side the first ones. This is turning our beautiful lush neighborhood into a possible fire hazard and not even a project that will benefit my community. You Please keep my communities and my concerns in mind when you make your final decision on this project. Thank you for you time and consideration.	Your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Shannon Baum	I am a concerned citizen and resident of San Marcos, specifically living in the community of Rancho Dorado directly adjacent to San Marcos Blvd where the proposed TL6975 69kV project. I am concerned that such large electric poles would not only be a fire hazard but also emit radiation. With all of the fire issues my community has had in the recent past causing significant damage to property, human and animal life, as well as businesses. If the current rout is to be used I would hope that the lines would be buried to eliminate the possibility of fire. Thank you for your time and consideration.	Your preference for underground power lines and concerns regarding wildfire and human health are acknowledged. Please see Master Responses 2, Wildfire, and Master Response 3, EMF and Operational Noise
Anthony Beckerman	Please conduct an EIR. We will not stand still and allow this to happen again. Go underground! Listen to the will of the people and Not your pocket book.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process
Marcus Beckerman	This picture attached is what we look at every day! This is NOT why we bought our home costing over $800,000. It was not there when we bought. The value of our home has since dropped because if the ugly view of large electric steel posts and the EMF generated causing potential health Hazzard. Adding more of these is detrimental to our health and to our environment. Conduct an EIR and go underground.	Your request for an EIR, preference for underground power lines, and concerns regarding aesthetics, human health, and property values are acknowledged. Please see Master Responses 4, CEQA Process; 1, Aesthetics; 3, EMF and Operational Noise; and 5, Non-CEQA Issues. See Appendix B.2 for comment attachments.
Tony Beckerman	Words are not adequate to express my deep concern on the proposed power lines. No only do they currently run directly through our community within feet of our homes, but the health and sure potential is enormous. Many of our insurance companies are cancelling our policies due to fire hazard and now with a proposal of doubling the poles and lines we are put into an even more dangerous zone and predicament. This must not happen again! These power lines have very little to no help to our community nor for most of San Marcos, they benefit Vista, Escondido and other areas, yet we are the ones taking the brunt. Just like the fire up North that has basically put PG&E into bancrupcy, so too will this become your fate. Think ahead, support the will of the people and not your pocket books. PUT ALL THESE LINES UNDERGROUND!!	Your preference for underground power lines and your concerns regarding wildfire and insurance. Please see Master Responses 2, Wildfire, 4, CEQA Process; 5, Non-CEQA Issues.
Tony Beckerman	Underground may cost more, but it could prevent the loss of lives. No More Poles in our community. Conduct EIR This project is of no advantage to our community nor most of San Marcos	Your preference for underground power lines or another alternative is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process
Patricia Benavente	I agree that adding power lines above ground pushes the cost to the affected neighborhoods in the form of decreased values for the homes. The right thing to do is allow ALL ratepayers to share the cost burden by providing underground construction. I understand the desire to reduce costs on the project - but the cost burden is clearly and unfairly taxing those homes and neighbors near the lines. While I am on the top of the hill - neighborhood values have a ripple affect, and we will have a reduction in our home value as a result. Let the shareholders or ratepayers share the impact - not our neighborhood. Thank you.	Your preference for underground power lines and your concerns regarding property values are acknowledged. Please see Master Responses 4, CEQA Process; and 5, Non-CEQA Issues.
Charles Benson	I am VERY concerned about what the additional lines will do to both the property values and the fire safety of my neighborhood. Please, please take these very significant factors into consideration when you consider any approvals of this project. I am very willing to pay additional money to SDGE to cover the additional cost of burial of the current and new lines. As a resident of the city, county and state and a paying customer of SDGE I want the wishes of the people to be heard. Thank you for your consideration.	Your preference for underground power lines and concerns regarding property values and wildfire are acknowledged. Please see Master Reponses 5, Non-CEQA Issues; and 2, Wildfire.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Amoreena Berg	I am writing to you as a concerned SEH resident who lives in The Estates, the new development at the top. I have lived in SEH for over five years, being a resident during the last fires which reached where my new home stands today. I am rather shocked and fearful of the new above ground power lines for two major reason, 1) fires and that explanation doesn't even need to go further 2) health with the increased EMFs risks which has been well documented. There are of course the other reasons such as decreasing property values and the visual look of these lines, but the most important issues to me and my children is more risk to fires. I am honestly not even sure how this town will evacuate given the increased size in just 5 years…let's not add more risk with these power lines above ground.	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, human health, and property value are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.
Jeff Berg	Prepare an EIR so alternatives such as undergrounding can be considered that will significantly reduce the effects on the environment. It is worth the additional cost to not increase our wildfire risk, or to not destroy the aesthetics of our beautiful neighborhood, or to not cause millions of dollars to be lost in property values.	Your preference for underground power lines and concerns regarding wildfire, aesthetics, and property values are acknowledged. Please see Master Responses 1, Aesthetics, 2, Wildfires, 5, Non-CEQA Issues. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.
Shannon Berg	Our home and property are situated directly next to the power lines in the Rancho Dorado neighborhood. We see the poles and lines from both our back yard and front yard. We knew that buying our home 3 years ago and moving in that it would be an "eye sore" and we accepted that, but to know they may add more is disappointing. We are asking that the CPUC would prepare an EIR so alternatives such as undergrounding additional power lines can be considered. That will significantly reduce the effects on the environment. It is worth the additional cost to not increase our wildfire risk, or to not destroy the aesthetics of our beautiful neighborhood, or to not cause millions of dollars to be lost in property values. Thank you for your consideration.	Your request for an EIR, preference for underground power lines and concerns regarding aesthetics, wildfire, and property values are acknowledged. Please see Master Responses 4, CEQA Process; 1, Aesthetics; 2, Wildfire; and 5, Non-CEQA Issues.
Alicia Bernardi	Please complete an environmental impact survey. Publish the results.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Heather Bishara	I want an EIR on TL6975. Evaluate alternatives such as underground/trenched solutions. No more huge power lines!!!!!	Your preference for underground power lines or another alternative is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.
Aimee Bitterlin	I am writing in to express my concern for the new power lines proposed for San Elijo Hills. Not only are power lines unhealthy, visually unappealing, have a negative impact on our home prices, my main concern is fire safety. Newer massive fires are started yearly new to power lines and we cannot afford that risk in this densely populated community. Our health and safety should be the upmost important!	Your preference for underground power lines and your opposition to, and concerns regarding, the proposed project have been acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues
Bonnie Blair	I want an EIR on TL6975"!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Jay Blair	I would like to request an EIR of the proposed power lines that impact my community!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Pat Bleha	To State of CA Public Utilties Commisssion: As a nearby resident whose house burned down in the 1996 wildfire which came from San Marcos into Carlsbad, I vehemently object to SDG&E wanting to install another set of overhead wires in San Marcos and your tentative approval of SDG&E TL6975. The wires should be underground; in fact all wire installation in California from here on should be underground and existing overheads should be put underground as well. This should be a no-brainer, but apparently sine it is not, I will list just some of the reasons why you need to get tougher with the utilties: SDG&E claims they need additional capacity to pay for more ratepayers and they need more money to pay for underground. If they have more rate payers then that is more money they have to do so. If they are anticipating more	Your opposition to the proposed project, preference for underground power lines, and concerns regarding wildfire are acknowledged. Please see Master Responses 4, CEQA Process, and 2, Wildfire.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Pat Bleha (cont.)	growth in the future, it is not here yet and most people will fight that. Finally it is questionable that they do not have enougth money anyways since its parent company, Sempra Energy, is a multi-billion dollar company. These transmission lines are to carry power from San Marcos substation to Escondido substation and beyond and could be put on a direct 5.4 mil route underground. Instead SDG&E want to put the lines overhead on a meandering 12 plus mile route through sensitive communities and conservation areas. The overhead lines would be 30-50 feet closer to homes alongside the huge transmissin line resulting in EMF's and health hazards. SDG&E should be required to perform an environmental impact report as the City of San Marcos has requested. SDG&E is undergrounding power lines in Rancho Bernardo area. The project manger has stated reasons inclduing…"better aesthetics…minimizing environemntal impacts and future maintenance." So why would overhead wires in San Marcos have any less negative neviornmental impacts? This is insulting to residents here!!! Finally I heard power lines are going to be put underground in Paradise CA which wa almost entirely demolished by wildfires recently. Do communities have to be destroyed before anything is done???? If SDG&E cannot or will not put in underground wires, tehn let's have the government take over the utiliizes which is done in other countries. Do not be a rubber stamp for this corporation.	
Jerry Block	There must be an EIR ordered for the TL6975 69kv Project in San Marcos. Please see my letters to the City Council for more information	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process. Please also see Responses to the City of San Marcos Letter A8. See Appendix B.2 for comment attachments.
Cassandra Blomberg	Please give us an EIR for the new proposed power lines! We live in a very high fire area with only one way in and one way out. Just a few months ago our power was shut down for a day due to high winds and the risk of fire with the electricity lines- so why would anyone think it's ok to install more?! They need to go below ground to protect our community and families.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process
Jessica Boden	It is imperative that an Environmental Impact Report be conducted!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process
Renee Bodman	I am a homeowner and am very opposed to the power lines in our community for many reasons. Increased for danger, EMF's, which have been linked to cancer in in similar communities where these type of power lines exist, wildlife impacts and a negative impact on property values. I would like an EIR at the very least before such project is implemented into our community. Sincerely, Renee and Bob Bodman	Your preference for underground power lines and concerns regarding human health, property values, and wildlife are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues. For all other concerns regarding wildlife, refer to Section 3.4, Biological Resources in the Draft IS/MND.
Alexander Bogdanov	My family and I are greatly concerned about SDG@E's TL6975 69kV Project. Please conduct a complete EIR on that project. Our major concerns are increased fire hazard (especially after what happened to the city of Paradise, CA), health hazard due to high EMF levels, and decrease of home values due to unsightly power lines in the immediate vicinity. At this time, it is already hard to obtain a home insurance due to high fire hazard (few insurance companies have any offers in this area, and they are expensive). With the new power lines, we are afraid it would be next to impossible to get any insurance.	Your concerns regarding aesthetics, wildfire, human health, insurance, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Rachel Bolin	To Whom It May Concern; Regarding: San Marcos Project TL 6975, 1674 Sagewood Way, San Marcos CA 92078 We are very concerned with the aesthetics and the property value being affected by this projected project, TL 6975. When we originally purchased our home we paid a premium amount that exceeded $50,000 for this lot. Now, with this new purposed project our property value will decrease at least this amount. We are very concerned with the fire potential from winds causing the powerlines to clap against each other or come down. This will also affect our fire insurance costs if we are even able to get coverage. We are limited to our choices for entering and leaving our neighborhood. In the event of a fire, we are concerned about having access without the need to go near where the fire could be burning. The potential is real and frightening. We have a swimming pool that is located near the overhead lines that were not there when we originally built the pool. This too, concerns us, due to safety reasons. We host lots of events at our home and notice buzzing now. Once the new poles are installed, we are sure the noise will intensify. Although little attention is being given to the EMF's that the new transmission lines will bring we are very concerned about our health. We have two very active teens and do not want them exposed to the possibilities of cancer in any form. We realize EM F's are already in the environment but why ad more? Again, we host lots of social events, due to having a pool, and have many families that attend. We are concerned about lawsuits if anything were to happen caused by the new powerlines. There are multiple poles in our view that are aesthetically displeasing to the eye. The new purposed poles will further destroy any views causing a deterrent to potential buyers to our neighborhood. They have already started disclosing this information to buyers and it is having a very negative effect on the costs of our homes. We are concerned about the biological effects as well as the wildlife. We choose this neighborhood because we could look out at a beautiful landscape unencumbered. With wildlife running free and creating a very peaceful feeling. We didn't want to look out on other homes and power poles with constant buzzing. We would appreciate the consideration of putting the poles underground. Doing this could eliminate the decrease in property value, noise and hopefully EMF's.	Your preference for underground power lines and concerns regarding aesthetics, property values, insurance, EMF, and wildfire are acknowledged. Please see Master Responses 4, CEQA Process; 5, Non-CEQA Issues; 1, Aesthetics; 3, EMF and Operational Noise; and 2, Wildfire. See Appendix B.2 for comment attachments.
Vinod Bonthala	Please conduct an EIR on SDG&E's project	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Ronald Borg	We have already had our insurance cancelled due to fire risk. These lines should not be allowed to be installed the risk is too high! Put them underground. Has SDGE not learned anything from history of wild fires.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
Do Laraway Borman	We moved into the Rancho Dorado neighborhood in 2001. We are original homeowners at 2186 Coast Ave. When we decided to purchase our home, one of the selling points was how rural setting. The power lines were mounted discreet wooden poles. The poles blended with the surrounding natural and native environment. The new poles were installed around 2010 and are absolute monstrosities. My husband and I, along with our neighbors, were really shocked and upset that the utilities planners thought these huge new metal poles were in any way appropriate to place in a neighborhood surrounded by trails, large swathes of rural landscape and native shrubbery, plus ocean and rolling hill views. These new (existing) poles are true eyesores and now you want to run another adjacent line of poles?! The additional poles will add more visual clutter to already impacted views. Those first metal poles forever altered the landscape, views, aesthetics, and feeling of this development and the proposed poles will worsen all of the above. Property values are already impacted by the size of the current metal poles as selling homes near these huge poles is much more difficult than those without. It took an acquaintance in a nearby coastal area months to sell her home because she lived next to a metal pole much like what is installed in our development. The number one comment from prospective buyers was that they didn't want to look at a huge metal pole everyday and that the EMF transmissions were detrimental to health. The seller had to	Your concerns regarding aesthetics, property values, wildfire, noise, EMFs, insurance, and trails are acknowledged. Please see Master Responses 4, CEQA Process; 1, Aesthetics; 5, Non-CEQA Issues; 3, EMFs and Operational Noise; and 2, Wildfire.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Do Laraway Borman (cont.)	lower the selling price and supply countless documents and reports to negate the concerns. When those poles were installed in 2010 we all thought that there couldn't possibly be any additional poles in the works because these poles are so large. We thought that surely the utility planners wouldn't install any poles that wouldn't handle the capacity necessary for current and future needs! Why were these monstrosities even installed if they planners couldn't add additional lines for future needs!? Such a waste of money not to mention poor planning and execution. Another concern is the additional fire hazard that occurs when electrical lines are downed. We already have had difficulty in finding homeowners insurance with the existing electrical lines and poles being placed in a rural landscape. We had to pay more than ever before. If more lines/poles are installed finding insurance will be nearly impossible! There has to be an alternative route that you need to consider. It's unfair for this development along with San Elijo Hills and surrounding areas to bear the brunt of these electrical runs. They have severely impacted our neighborhood property values, aesthetics, noise levels, EMF's, trails and landscape.	
Jackb Borman	I live in rancho dorado and i request that SGD&E perform an EIR before adding more power lines to my community	Your preference for underground power lines, and request for an EIR, is acknowledged. Please see Master Response 4, CEQA Process
Mike Borman	As a homeowner in Rancho Dorado neighborhood since 2001 I'm very much against further enlargement of existing power lines right through our neighborhood. Since the last power line enlargement and 2 major fire incidents, our long time home insurance provider AAA declined to renew our policy. We've been left with few choices for home insurance and are subject to rate gouging, increases. This is a significant negative impact that would get much worse with further expansion of power lines and increased risk of major fire event. The Paradise fire could happen again is this neighborhood. Increased Power line towers place significant risk of airplane crash as Rancho Dorado is directly in the landing flight path of Palomar Airport. We see planes over head on a weekly and daily basis. These power lines must be placed UNDER GROUND!! We must see an unbiased Environmental Impact Report (EIR) before any construction takes place. We risk significant loss of home values, Visual AESTHETICS and exposure to EMF's. These are significant losses. We cannot afford another hike in Home Insurance or potential to have no one provide insurance based on the increased FIRE RISK THAT WILL COME WITH ENLARGED TOWERS.	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, human health, insurance, and property value are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.
Jessica Bottrell	Having been evacuated 2x since living in SEH, we now live further up the hill with zero escape routes except for very limited main roads. The fire danger we already face is daunting and we cannot willfully invite further danger with more above ground electric lines. I understand the need to install more power lines, however, they need to be installed below ground.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process
Akiko Bowling	Please conduct an EIR, so a thorough analysis of viable alternatives can be completed before approving SDG&E's proposed project.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Tiffany Boyd-Hodgson	We moved to San Elijo Hills in February. We are horrified to learn that this project is in the works in what seems to be a very rushed way. I have heard my neighbors talk about increased fire risk, experiencing increased home insurance premiums or losing coverage all together, decreased property values by non trivial amounts. I am concerned about all of these potential consequences as well as the potential health impact. An EIR must be done before moving forward.	Your preference for underground power lines and concerns regarding wildfire and human health are acknowledged. Please see Master Responses 2, Wildfire, and Master Response 3, EMF and Operational Noise
Eric Bradford	Do not install the power lines above ground. Thanks.	Your preference for underground power lines is acknowledged. Please see Master Response 4, CEQA Process
Kristin Bradford	I would like to request an EIR for these proposed SDGE power lines. This is not good for the safety of our poorly planned community. This is a fire safety risk, unhealthy for our bodies and unsightly.	Your concerns regarding aesthetics, wildfire, and human health are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Kristin Bradford	I want an EIR on TL6975	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Lani Bray	Regarding the additional utility poles to be put up in San Elijo Hills, I'm not understanding why all the poles can't be put underground. We are a community in a very high fire danger area, and adding more poles above ground just doesn't seem to be right. Additionally, studies have shown an increase in brain cancer when people live near these poles, and now you want to double them up? Be prepared for lawsuits people! Lani Bray	Your preference for underground power lines and concerns regarding wildfire and human health are acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; and 4, CEQA Process.
Lani Bray	I don't understand how something like these power poles being put in is not under the guidelines of what warrants an environmental impact survey. Please make SDG&E undergo an EIS before moving forward! We do not want the effects of double power poles in our neighborhood! Lani Bray	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process
Stacey Brent	I want an EIR on TL6975	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Kelly Brett	As a resident of San Elijo I request a full environmental impact report be carried out so we can fully understand the impact the proposed power lines will have on our community.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Leigh Brett	For this to even be a discussion is crazy. People's health is worth more than money! Let's break the chain of money over people, let's do the right thing and bury these lines!!!	Your opposition to the proposed project and preference for underground power lines or another alternative is acknowledged.
Leigh Brett	Look, let's get real here. This is a terrible idea! Everyone knows it and no one can objectively say it's a better idea to build above ground than below. This is only down to money. SDG&E need to do the right thing and come to terms that burying the lines is the cost of doing business. California is Better than this, San Diego is Better than this, San Marcos is better than this, SDG&E should be better than this!	Your opposition to the proposed project and preference for underground power lines or another alternative is acknowledged. Please see Master Response 4, CEQA Process.
Leigh Brett	This is crazy! It is 2019 and SDG&E is wanting to build above ground power lines?!!? The fire risk to all Men, Women, Children, Animals, and Housing will increase exponentially. This is a dry arid environment and in a state prone to fires. So what if it costs double or triple to bury them? This cost will be the best way SDG&E avoids law suits that will total much more than this god forbid anyone should have a serious injury or die.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
Leigh Brett	There is now a large amount of research that find these 'buzzing' lines cause all sorts of health issues to Humans and I'm sure animals too. To willingly do this to a community in this day and age is medieval. This is to speak nothing of the impact to house pricing and overall aesthetics, which obviously take second place to health and safety risks. DO THE RIGHT THING!!!	Your preference for underground power lines and your opposition to, and concerns regarding, the proposed project have been acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues
Michelle Breyer	Please put all electrical lines underground. The towers in Carlsbad are unsightly and we would hate to see the same throughout San Marcos. You have the money and the technology to bury the lines at this time, so please do it.	Your preference for underground power lines and you concern regarding aesthetics are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 1, Aesthetics, and 4, CEQA Process
Richard Breyer	Place the wires underground. No more ugly power poles. While your at it underground the existing poles in Carlsbad.	Your opposition to the proposed project and preference for underground power lines or another alternative is acknowledged. Please see Master Response 4, CEQA Process
John Briggs	Please conduct an EIR on SDG&E pole project. I own property at 193 Skyridge, San Marcos, CA 92078	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Amy Broesel	We've lived in San Elijo since 2001. We are an active family that get out and enjoy the parks, bikes/creek trails and nature! We picked San a Elijo for its peaceful quality of life. Our kids mountains bike with their buddies to/fro school; we are part owners of a local business that recently opened in the town center; we organize block parties and attend birthday parties at our neighborhood parks. What we do NOT need or want going through the very vein of our town is an ugly monstrosity of power line towers! Their constant buzzing reminding us of their presence. We are a close knit town that treasures our way of life including our hills, our creeks, our schools and our residents. Thank you for your time.	Your concerns regarding aesthetics and operational noise are acknowledged. Please see Master Responses 1, Aesthetics and 3, EMF and Operational Noise.
Jim Brownridge	We live in The Fairways HOA within Lake San Marcos bordering the Executive Golf Course. Ours, a premium view property was initially impacted by the first high tension wires cutting through our ocean view. We see the wires from one angle, then see one of the steel poles from the other angle. The second set of high tension wires and additional steel poles will greatly impact this view and the tranquility setting within The Fairways at Lake San Marcos. Jim Brownridge - Owner/Resident	Your concerns regarding aesthetics are acknowledged. Please see Master Response 1, Aesthetics.
Kenneth Brucker	A large portion of this project goes through areas that pose severe wildfire risks. Given the wildfire risks related to issues with power lines, has an underground routing for the lines been adequately explored? This seems a good opportunity to move away from overhead lines, especially in areas that pose a wildfire risk. I understand that the project includes mitigations for fire risk during construction. What is being done to reduce fire risk from the presence of these power lines through wildfire prone areas?	Please see Master Responses 2, Wildfire and 4, CEQA Process.
Guillermo Brun	I totally disagree on the new electricity poles that SDGE is planning to install above ground, since they will damage the environment and could create new hazard for our community. I ask that other alternative are evaluated wich do not have the negative impact of this project. Thanks Guillermo Brun	Your preference for underground power lines is acknowledged. Please see Master Response 4, CEQA Process
Brina Bujkovsky	I'm requesting an EIR for this project.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Stuart Burdette	I am an original home owner in the neighborhood of the proposed additional above ground power lines associated with project SDG&E San Marcos to Escondido TL6975 69kV. We were residents in this community when the previous power lines were replaced with the larger, more powerful and sizeable poles and lines (going from small wood disbursed poles to the more egregious and substantially larger steel poles and multiple lines). Prior to any additional power lines installed for the current proposed project, I would request an EIR be performed so alternatives such as underground power lines can be considered, which would significantly reduce the effects on the environment. Despite possible additional costs, I believe these findings might warrant the benefits of protecting our wildlife, our property values, and prevent possible increased risk of wildfires that pose danger to our community. It's clear the fires of Los Angeles and Northern California the past couple years warrant a more conservative approach to adding more above ground power lines in wind prone areas. And the area proposed for this project absolutely experiences high wind warnings. The risk to SDG&E would include possible future lawsuits for rushing to judgment such a dangerous option. I've included the following as reference (http://time.com/5589953/pacific-gas-electric-paradise-wildfire-california/). As a near 20-year home owner directly adjacent the proposed site, I'd ask you all to please review alternatives to both above ground wiring, as well as the current proposed site plan. There also remains the obvious decline in home values associated with the lot and views from our backyard. The current larger poles and multiple wires that flank our community are quite sufficient for us doing our part as partners with SDG&E. We have been "team" players for many years. But the addition of another series of poles adjacent the current lines goes 'over the top' from what's reasonable, customary, and safe.	Your preference for underground power lines and your opposition to, and concerns regarding, the proposed project have been acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues. For all other concerns regarding wildlife/trails refer to Section 3.4, Biological Resources in the Draft IS/MND.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Stuart Burdette (cont.)	Last, I believe when the previous large poles and multiple wires were installed, we as home owners were assured there would be no additional lines and needs in this area of proximity. Thank you for the consideration.	
Melissa Burgess	We demand an EIR for this project due to fire and health safety concerns.	Your concerns regarding wildfire, and human health are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process.
Dennis Burns	I am totally opposed to this project. When I bought our property 26 year ago, the developer assured us the open space (the canyon) between our property and Palomar airport road would not be built upon and that the existing power lines would be put underground when they were upgraded. Also the property value of every house along the power line route would be decreased, to say nothing of the aesthetic value of our view. We live in the Laurels between Acacia and Business park road. Please do the right thing and if needed put the power lines underground.	Your preference for underground power lines and your concerns regarding aesthetics and property value are acknowledged. Please see Master Responses 1, Aesthetics; and 4, CEQA Process.
Michael Burns	As a resident of San Elijo Hills, I find the addition of any new high voltage power lines to be troublesome. It is well documented that above ground power lines bring down the value of homes in the area. Furthermore, there are a number of health and safety related concerns with the installation of above ground power lines. As the world learned in 2018 with the Camp fire in Northern California, above ground power lines are DANGEROUS fire hazards that can lead to the terrible loss of lives. Also, there are the long term health concerns associated with exposure to EMF radiation. The recommended MINIMUM safe distance is 700 feet. What is SDGE doing to ensure that residents are not being exposed to EMF radiation. In my opinion, there is no price you can put on a life and the only safe alternative is to put them underground. Oh, not to mention, they are butt-ass ugly!!	Your preference for underground power lines and concerns regarding property values, human health, wildfire, and aesthetics are acknowledged. Please see Master Responses 4, CEQA Process; 5, Non-CEQA Issues; 3, EMF and Operational Noise; 2, Wildfire; and 1, Aesthetics.
Katie Burrus	PLEASE do not run lines over our homes in San Elijo Hills. None of the residents support this. Run the lines under ground. Protect humans and other creatures. Spend the money to put them underground since you have the option to do so. We are a high wild fire area. It will cost you so much more in the long run if and when your above ground lines spark and cause a fire. Thank you!	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process.
Stephanie Buser	Requesting an EIR.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Julie Butts	I want an EIR on TL6975	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Victor Calise	Please conduct an EIR on the SDG&E project in San Elijo Hills.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Leah Calloway	It has been CONFIRMED that above ground power lines started one of the most destructive fires in California history. Adding more above ground power lines to an area already PROVEN to be a high fire risk area is unconscionable; especially KNOWING that one of the two access routes out if the area could be blocked to THOUSANDS of children and adults in case of wild fires. Continue to do your due diligence, conduct an EIR, save lives, save properties. BE AN EXAMPLE OF MAKING PEOPLE MORE IMPORTANT THAN MONEY. Thank you.	Your request for an EIR, preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Responses 4, CEQA Process and 2, Wildfire.
Michael Calloway	Please prepare an EIR so viable alternatives can be throughly considered.ijo	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Eric Canfield	I am an owner and resident of San Elijo Hills Homeowners Association. I live at 1698 Sagewood Way and my home abuts the utilities right of way. I believe the CPUC should require the utility to conduct an exhausted environmental impact report and should require the utility to bury the proposed expansion for the following reasons. -The homeowners in the proposed expansion area will be adversely affected by a reduction in home value, an increase in the cost of fire insurance (in some instances an owner may not qualify for fire insurance at all). This reduction in home value will have a cascade affect throughout the community as real estate in an area is based upon comparables within the community. As the home values for those owners adjacent to the right of way lose value, so do those owners further from the right of way. This reduction in property value has the additional affect of a reduction in the tax base for a city, which in turn reduces that city's budget and therefore the services the city can offer its citizens, even those citizens not directly impacted by the expansion. - The CPUC has not required the utility to conduct an exhaustive environmental report. The CPUC and the utility remains ignorant of the impact the proposed expansion will have on the environment and habitat. This should be a requirement for any such expansion, not an option. - The proposed expansion will increase the chance of fire danger. This is a fact. Adding more lines, adds more chance for a line to snap, a transformer to explode. The utility already shuts off certain lines directly behind my home for this very reason during high wind days (which are predicted to increase with climate change). The increase in fire danger will result in an increase in the rate of insurance. In some cases homeowners will not be able to obtain or afford fire insurance. If they cannot afford or maintain fire insurance, they will not qualify for a home loan. If they do not qualify for a home loan, home values will drop. As previously stated this will have a cascade effect on property values throughout the community. - The proposed expansion will put power lines directly in my sight lines, thirty feet from the west side of my lot. This will have a negative effect on the visual aesthetics of my home and my view. There are already power lines visible from my second story, adding more lines will have a cumulative effect and will further diminish the value of my home. - The utility is guaranteed a profit, no matter the cost of construction. The CPUC is tasked with limiting all increases to rate payers; however, in this instance, the CPUC, if it allows the utility to proceed with the proposed above ground installation, will require the homeowners, communities and city impacted by the proposed installation to foot the bill. The CPUC should require all rate payers to contribute a small sum to a below ground alternative, rather than require several hundred rates payers lose significant property value and deal with an increase in fire insurance and fire danger. Thank you for your consideration, Eric Canfield	Your preference for underground power lines and your opposition to, and concerns regarding, the proposed project have been acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.
Katharyn Canfield	These proposed power lines will hurt our property value- ultimately hurting the property taxes collected by the city. The homes along the proposed power lines will be subject to more EMF and getting fire I surance may become impossible. SDGE would still make money if they buried them or relocated on the other side of the trails. This is not right and we will not see this done quietly. We will fight every step.	Your concerns regarding wildfire, human health, and property value are acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; and 4, CEQA Process.
Derek Cao	I am an 8th grade middle school student in San Elijo Middle School. I strongly request to put the power line underground. A couple of years ago we experienced a wildfire in our community and our only road to evacuate the community was jammed. There are two schools on both ends of San Elijo Road with thousands of students. If there was another fire, it would be impossible to get out all the students on time. This will jeopardize our lives and safety.	Your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire
Liwei Cao	Dear CPUC commissioners, We are deeply concerned about the safety of our community and the existing and new threat caused by the power lines. Cal Fire investigations have concluded that the Camp fire in 2018, the deadliest fire in history, was caused by PG&E's electric power lines[1]. Long before the conclusion was made, PG&E declared bankruptcy protection last year. It is clear now that not only the town is destroyed, but there will have no money to	Your preference for underground power lines and your concerns regarding wildfire and insurance rates are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Liwei Cao (cont.)	rebuild. The whole community is completely ruined. Before the Camp fire, Cal Fire had concluded that 12 of the Northern California wild fires in 2017 were also caused by PG&E power lines[2]. How many of such tragedies need to happen before people realize that the safest place for power lines is under the ground? For the safety of the residents, the children and the future of California, shouldn't we make it a rule that all new power lines should be buried underground? Can't we start with the one we are building? And move the existing ones down once possible? In case SDG&E is arguing the alternative remedies, such as power blackout during hot and windy days. Last year, SDG&E blacked out the power two times with each lasting for a day or two. While this may be manageable for once or twice a year, it is clear that such incidents are on the rise. As the progression of global warming, the dry hot winds from the desert is certain to be stronger, last longer, and occur more frequent year after year. Soon we are going to expect week-long blackouts[3]. When will we say enough is enough? Shouldn't we act now before it is too late? Before more people loss their homes or even their life's? You have the power to stop this madness, please help us to do the right thing, so we, and you, can sleep better at night knowing you've done ther right thing!!! And talk about quality of life, because of the fires, not only the residents here have suffered physically and psychologically from the last fires and evacuations, now we are facing the devaluation of our homes and much higher insurance costs even if we could find that rare insurance provider who would still cover us. Let's work to bury the power lines underground now!!!! And become a hero to our community, and other communities around California by becoming an advocate for the right ways in building new powerlines-only build down underground!!! Best regards, Residents of San Elijah Hills Comumunity References: [1] https://www.nytimes.com/2019/05/15/business/pge-fire.html [2] https://sf.curbed.com/2018/6/8/17443508/santa-rose-napa-fire-wildfire-pge-report-findings [3] https://www.bloomberg.com/news/articles/2019-05-12/california-may-go-dark-this-summer-and-most-aren-t-ready	
James Caraccio	I'm not sure why the master plan for San Elijo Hills, Rancho Dorado and the other communities impacted by these power lines didn't include this section of the transmission lines to be under ground. That was a failure of those in charge 20+ years ago. The reason, as I understand it today, for not putting them underground is the cost. I believe the environmental impact of doubling the power lines, is real and feel it's imperative that there's a complete Environmental Impact Report (EIR) on TL6975 done prior to any further progress is made on adding to the existing lines that are already there. I'm also in favor of understanding the cost of putting the lines underground, where they go through communities, so we can work with the City of SM to brainstorm ways to fund it. These communities are beautiful and have houses with an average value of $1M. The current power lines already have an impact on home values and the addition of more lines will drive the prices down even further. Please conduct a complete EIR as well as provide estimated costs of burying the lines when they cross through a community. Thanks, James Caraccio	Your preference for underground power lines, and request for an EIR, is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
James Caraccio	San Marcos to Escondido TL6975 69kV Project We own 2 homes in Rancho Dorado. The impact of the power lines is felt double for our family. Please see the detailed comments provided in my other response from 1247 White Sands Dr. In short, the CPUC, SDGE and the City of San Marcos let all the residents along the TL6975 project down by not planning to put the lines underground through planned high density communities. There wasn't any disclosure by the builder that there were plans to erect giant steel power lines through the community, which could have legal consequences as well. At a minimum, we need a full Environmental Impact study. Thanks, James and Loralyn Caraccio	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process
Alejandro Carbonero	I don't want the power lines adding to the already dangerous potential of fire.	Your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire
Cliff Carnes	I demand that you conduct an EIR on TL6975. The health and safety of our entire family depend on it!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
David Carnes	Please conduct an EIR on SDG&E's project. Don't Allow them to ruin our community, and the equity that we have spent the last 13 years building. Thank you Dave Carnes	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Deirdre Carnes	As a resident of San Elijo Hills I demand that you conduct an EIR on TL6975. It is irresponsible for you not to do it. Placing more above ground power lines adjacent to power lines that are already a fire and health hazard in this area is unconscionable. The health and safety of our community depend on this EIR.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process.
Jennifer Carosella	Dear CPUC, I want an EIR on TL6975!!!! As we have seen in the last year, There is no such thing as a safe, above-ground power line. We cannot imagine experiencing even a moment of safety for our family if you allow SDG&E to erect yet Above ground poles in a "very high fire risk " zone, that is also prone to earthquakes. When the "big one hits", and it will eventually, both of these poles are poised to fall directly on homes in our community or in the dry brush behind it. It has already been proven that EMF radiation contributes to childhood leukemia and who knows what else In a perfect world, we would also like the existing lines undergrounded. This community has only two roads to escape disaster and hundreds, if not thousands are at risk of dying because we are surrounded by above-ground power lines with only two options for escape. The fires in 2014 in our community are attached for a reminder of the peril we face. Please help our community from becoming even more dangerous and please protect our property values from plummeting at the hands of SDG&E. Many of us already experience great difficulty obtaining insurance for our homes and are being quoted astronomical rates for wanting to protect our homes against the dangers of above-ground power lines. Sincerely, Jennifer Carosella	Your preference for underground power lines and your concerns regarding wildfire, human health, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues. See Appendix B.2 for comment attachments.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Danielle Carranza	Danielle Carranza 562 Ledge Street San Marcos, Ca 92078 I am appalled at the the thought of electrical wires going up in our beautiful community. It is scary to think of all the health risk factors that it may cause to residents. Furthermore, with other neighboring communities, like Rancho Bernardo, that are converting to under ground lines, why are we even contemplating, going to wires above ground? It only makes sense that all lines should be underground especially with the increase risk of fires, our neighbor aesthetics, our home values declining. I would like to request for an EIR report, and an EMF testing and report. Would definitely move out of this community, if this decision, for electrical wires to go above ground, came to pass.	Your preference for underground power lines and concerns regarding wildfire and human health are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; and 4, CEQA Process.
Therese Carranza	Therese Carranza at 562 Ledge Street, San Marcos 92078 The thought of putting electrical wires aboute ground is totally ridiculous. Numerous health studies have concluded, that these areas have a higher risk of cancer. Seriously is that what we want? Additionally, such an eye sore to the community and the negative impact that this will have on the value of our homes.i am 100% totally against putting electrical wires above ground. I would like to request for an EIR report and EMF test and a study of the additional fire risks this brings to our beautiful community.	Your preference for underground power lines and your concerns regarding aesthetics and operational noise are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 3, EMF and Operational Noise; and 4, CEQA Process.
Terry Carrell	I want an EIR on TL6975	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Michaelann Carroll	I'll ease conduct an EIR and SDGE's proposes project.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process
Michaelann Carroll	Please conduct an EIR on SDGE's proposed project.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Michaelann Carroll	Please conduct and EIR on SDGE's proposed project.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Kent Carruthers	The plan for additional SDGE power lines running through San Elijo Hills is a critical threat to this communities safety due to the extreme fire danger. Please mandate that a complete EIR study is done prior to approving this project. Thank you.	Your concerns regarding wildfire is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 2, Wildfire, and 4, CEQA Process.
Kent Carruthers	First and foremost, the SDG&E San Marcos to Escondido Tie Line 6975 69kV Project must be suspended immediately. Multiple studies must be conducted to insure the safety of the residents affected by this project. Studies that must be conducted are: Fire Safety, EMF Study, Environmental Risk Property Value impact, Alternate Route options away from populated areas or underground. This project severely negatively affects the safety, well-being and lives of every person living in teh communities this project impacts. San Elijo Hillls is significantly affected because the whole community has been deemed a severe fire danger of the highest level. The absolute last thing this community seeds is an additional fire threat to an already severely impacted area. This project absolutely cannot be approved and must be rejected.	Your opposition to the proposed project and concerns regarding safety, wildfire, EMFs, property value, and alternatives are acknowledged. Please see Master Responses 4, CEQA Process; 2, Wildfire; 3, EMF and Operational Noise; and 5, Non-CEQA Issues.
Aura Caruthers	The addition of power lines gives me great concern about the potential added fire hazard as well as the negative impact it will have on the aesthetic and overall home value.	Your concern for wildfire, aesthetics, and property value are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; and 5, Non-CEQA Issues.
Andrea Cascia	My husband and I bought a home in the Rancho Dorado community in August 2015. We have loved living in this beautiful neighborhood for the past four years. It is truly our dream home. However, we have HUGE concerns regarding the additional power lines that are being proposed to run through our beautiful development that we call home every day. I am writing today to demand the CPUC conduct an Environmental Impact Report (EIR) on SDGE's proposed power line that would run through and around our communities. After the devastation and loss of life in Northern California last year, with PG&E responsible for the loss of property and most importantly, the TRAGIC LOSS OF LIFE, we as property owners in the the San Marcos area deserve to	Your preference for underground power lines and your concerns regarding wildfire and insurance are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 5, Non-CEQA Issues.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Andrea Cascia (cont.)	be heard regarding this matter. I understand the need for more power for the growing community of San Marcos, but LIFE is way more important than power lines that could easily be installed UNDERGROUND to meet the need, versus adding additional power lines higher than what we already have… especially with the fire danger from Santa Ana winds that we so often experience in San Marcos. THIS IS SETTING UP OUR NEIGHBORHOODS FOR DISASTER (AND SAN ELIJO HILLS WITH ONE WAY IN AND ONE WAY OUT), NOT TO MENTION THE ALREADY HIGH PREMIUMS WE PAY FOR HO INSURANCE TO COVER OUR HOMES (IF YOU CAN EVEN FIND AN INSURANCE COMPANY TO COVER YOU THESE DAYS). PLEASE, PLEASE, PLEASE CONDUCT AN EIR ON SDGE'S PROJECT BEFORE MOVING FORWARD. THIS NEEDS TO BE DONE PRIOR TO PROCEEDING. IT'S THE LEAST YOU CAN DO IF YOU ARE ONE BIT HUMAN.	
Neil Cascia	I am a resident of the Rancho Dorado community, having moved here with my wife and two teenage kids 3 ½ years ago for the charm, natural beauty and peacefullness of this neighborhood. My wife and I were unable to attend either of the public forums held on 4/30, and I wanted to provide you with our feedback on what an extreme detriment it would be to our community if more power lines were added to the already UGLY sight of the high tension power line towers already crossing right through the middle of our community. There is no doubt that these towers that were installed after the Rancho Dorado development was completed has already lowered home values in our neighborhood, and I pity the poor homeowners who bought homes immediately adjacent to and within the line of sight of the these UGLY towers. I would be livid if I lived anywhere near the location of these towers when the decision was made to COMPLETELY DISREGARD many homeowners' views, home values, and safety when these towers were erected. Not only are these towers an extreme EYESORE, but they also pose a substantial fire risk and health risk, as numerous studies have been conducted showing that the EM field that these high voltage power lines emit can seriously affect the health of persons living in their immediate vicinity. We do NOT need MORE of these ugly, dangerous, and hazardous power lines crossing through what once was a beautiful, quiet, peaceful, and picturesque community. My question to you and everyone on the board is: WOULD YOU WANT THESE POWER LINES PLACED IN YOUR OWN BACKYARD??? WHY CAN't THESE POWER LINES BE BURRIED, OUT OF SIGHT AND OUT OF DANGER??? All of us who live in the Rancho Dorado neighborhood HOPE AND PRAY that you will RECONSIDER this TERRIBLE plan!!!	Your preference for underground power lines and your opposition to, and concerns regarding, the proposed project have been acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues
Neil And Andrea Cascia	I am a resident of the Rancho Dorado community, having moved here with my family 3 ½ years ago due to the beautiful aesthetics and tranquility of this neighborhood. We live on Sun Valley Road, and have a son and daughter in high school, and a dog and cat also. My wife and I were unable to attend either of the public forums held on 4/30, and I wanted to provide you with our feedback on what an extreme detriment it would be to our community if more power lines were added to the already UGLY sight of the high tension power line towers already crossing right through the middle of our community. There is no doubt that these towers that were installed after the Rancho Dorado development was completed has already lowered home values in our neighborhood, and I pity the poor homeowners who bought homes immediately adjacent to and within the line of sight of the these UGLY towers. I would be livid if I lived anywhere near the location of these towers when the decision was made to COMPLETELY DISREGARD many homeowners' views, home values, and safety when these towers were erected. Not only are these towers an extreme EYESORE, but they also pose a substantial fire risk and health risk, as numerous studies have been conducted showing that the EM field that these high voltage power lines emit can seriously affect the health of persons living in their immediate vicinity. We do NOT need MORE of these ugly, dangerous, and hazardous power lines crossing through what once was a beautiful, quiet, peaceful, and picturesque community. My question to you and everyone on the board is: WOULD YOU WANT THESE POWER LINES PLACED IN YOUR OWN BACKYARD??? WHY CAN'T THESE POWER LINES BE BURRIED, OUT OF SIGHT AND OUT OF DANGER??? All of us who live in teh Rancho Dorado neighborhood HOPE AND PRAY that you will RECONSIDER this TERRIBLE plan!!!	Your preference for underground power lines and concern for aesthetics, property value, human health, and wildfire. Please see Master Responses 4, CEQA Process; 1, Aesthetics; 5, Non-CEQA Issues, 3, EMF and Operational Noise; and 2, Wildfire.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Roxanne Casebier	My husband Jeff Casebier and I oppose the erection of power lines in front of our community, The Laurels. We already have lines going through our community and now have more power lines/poles lining San Marcos Blvd in connection with the new development that is still being built across the street. Our small neighborhood should not further get packed in with all of the impacts of development all around us. We oppose this, and would like to know what alternatives have been explored, or not.	Your opposition to the proposed project and preference for alternatives is acknowledged. Please see Master Response 4, CEQA Process.
Carol Caslow	Please do not build the power lines. Do it underground. To much fire danger.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process.
Leigh Castelli	Our community stands together - we are fearful for the health AND safety of our community. We would all like an EIR.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Susana Castillo	I am a resident of Rancho Dorado, a mother and wife, who pays every single tax to the city, county and country in order to live in a safe, upscale area of North San Diego County. Just yesterday, I was checking the news, and while reading, I found similarities on this article about the french woman whose husband was killed in the Boeing 737 crash. Now she filed a lawsuit to the plane maker. The complaint alleges Boeing failed to inform pilots properly about the risks. Her lawyer's statement : "Once again corporate greed has placed profits over safety with tragic consequences for the public" The wife mentioned "The life of my husband was taken knowingly, and even willingly". Sounds familiar right? Please, California Public Utilities Members, why don't you hear and research before approving the construction of San Diego Gas and Electric Company project? How are you guys going to be able to sleep knowing that our area has 5,000 + students, many of them attending San Elijo schools?? Do you care? How can you replace a member of your family? Maybe you can offer electronic Holograms to replace them, right?	Your opposition to the proposed project is acknowledged.
Susana Castillo	Make any effort to help us! If you are not willing to do it you are responsible for any death or disease in our community! Do not be part of a criminal company like SDG&E you need to be aware of any actions…probably is better to quit a job there. Regards, Susan Castillo	Your comment has been acknowledged. Please see Master Responses 2, Wildfire and 3, EMF and Operational Noise regarding wildfires and human health.
Jennifer Castro	We do not want more large power lines near our homes. There's an increased fire danger and the current population of the area would struggle to all safely leave if there was a fire. Please reconsider the placement of the lines.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
Angela Cecena	As a concerned citizen and resident of San Elijo Hills, I am requesting that an Environmental Impact Report is done before any further discussion.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Nadine` Cerqua	Please complete a full EIR for the proposed project in San Elijo Hills. The fire and health hazards presented with the existing power lines is alarming and impactful as it is. The idea of above ground power lines in the middle of a fire zone and so close to homes is risky enough, to build additional structures demonstrates a flagrant disregard for the community and its welfare.	Your concerns regarding wildfire is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 2, Wildfire, and 4, CEQA Process
Gerald Chandler	Please do not put more power lines in our neighborhood. The ones that are there already pose a risk to health especially those of us that walk the trails close to them. They are also an "eye soar". Can you put the lines under ground? Hundreds of studies worldwide have shown that living next to high voltage power lines and other parts of the power transmission network increases your risk of cancer and other health problems. The closer you are the more you are bombarded with dangerous EMFs. Please provide us with a report of the current emissions the power lines are already causing. What is the increase in emissions the new ones will cause.	Your preference for underground power lines and your concerns regarding aesthetics and human health have been acknowledged. Please see Master Responses 1, Aesthetics; 3, EMF and Operational Noise; and 4, CEQA Process.
Gloria Charat	Will reconductoring increase EMF emissions above my home?	Please see Master Response 3, EMF and Operational Noise.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Mary Chesus	Please conduct an EIR. Place these dangerous lines underground. The area is a high fire hazard area.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process.
Yanhua Chi	我和女儿家住在San Elijo Carmel小区已经6年之久。我们以前经常去屋子的周围山路散步。自从建起了有大又高的电线栏杆，就在小路的旁边，我们都感觉很不安全，不再愿意去散步了。有一根电线柱子就在距离我们屋子后院的10米处，每天近距离看着很粗很大很高的发出滋滋电流声响的柱子，非常得不舒服和害怕。女儿告诉我这个屋子的保险已经很难找到有保险公司愿意投保的了，不是因为后院离草丛近，而是保险公司来人现场勘察后发现电线杆距离草丛太近太密集了。我们小区好几次因为大风原因停电，给我们带来非常大的影响和不便。我们强烈呼吁电力公司以长远利益和安全考虑，重新规划电线传送方案。 (English translation: My daughter's family and I have lived in the San Elijo Carmel community for the past 6 years. We used to take walks on hiking trails around the house, but ever since a big transmission tower was constructed, right on the little side street, we've been feeling unsafe and have not been going on walks since. There is a power line that sits 10 feet from our backyard, as we observe from up close every day the buzzing that emits from the electric current that runs through the pole, which is unnerving and downright scary. My daughter told me that it's been difficult to find an insurance company that is willing to insure us, not because of the close proximity of our backyard and the grass(bush), but because that upon inspection completed by the insurance company, they have found that the power line (pole) sits too close to the grass(bush). Our community has experienced many blackouts due to the strong winds, and it's had an overwhelmingly negative effect as well as hugely inconvenient. We strongly urge the electric companies to assess and weigh the long-term benefits and safety concerns, and to re-evaluate the power line proposal.)	Your concerns regarding safety, noise, insurance, and blackouts are acknowledged. Please see Master Responses 3, EMF and Operational Noise and 5, Non-CEQA Issues.
Yuemeng Chi	Cal Fire investigations have concluded that the Camp fire in 2018, the deadliest fire in history, was caused by PG&E's electric power lines[1]. Long before the conclusion was made, PG&E declared bankruptcy protection last year. It is clear now that not only the town is destroyed, but there will have no money to rebuild. The whole community is completely ruined. Before the Camp fire, Cal Fire had concluded that 12 of the Northern California wild fires in 2017 were also caused by PG&E power lines[2]. How many of such tragedies need to happen before people realize that the safest place for power lines is under the ground?	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire
Yuemeng Chi	And talk about quality of life, because of the fires, not only the residents here have suffered physically and psychologically from the last fires and evacuations, now we are facing the devaluation of our homes and much higher insurance costs even if we could find that rare insurance provider who would still cover us. Let's work to bury the power lines underground now!!!! And become a hero to our community, and other communities around California by becoming an advocate for the right ways in building new powerlines- only build down underground!!!	Your preference for underground power lines and concerns regarding wildfire, property value, and insurance are acknowledged. Your concern Please see Master Responses 2, Wildfire, 4, CEQA Process; 5, Non-CEQA Issues.
Yuemeng Chi	Dear CPUC commissioners, We are deeply concerned about the safety of our community and the existing and new threat caused by the power lines. Cal Fire investigations have concluded that the Camp fire in 2018, the deadliest fire in history, was caused by PG&E's electric power lines[1]. Long before the conclusion was made, PG&E declared bankruptcy protection last year. It is clear now that not only the town is destroyed, but there will have no money to rebuild. The whole community is completely ruined. Before the Camp fire, Cal Fire had concluded that 12 of the Northern California wild fires in 2017 were also caused by PG&E power lines[2]. How many of such tragedies need to happen before people realize that the safest place for power lines is under the ground? For the safety of the residents, the children and the future of California, shouldn't we make it a rule that all new power lines should be buried underground? Can't we start with the one we are building? And move	Your preference for underground power lines and your concerns regarding wildfire and insurance rates are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Yuemeng Chi (cont.)	the existing ones down once possible? In case SDG&E is arguing the alternative remedies, such as power blackout during hot and windy days. Last year, SDG&E blacked out the power two times with each lasting for a day or two. While this may be manageable for once or twice a year, it is clear that such incidents are on the rise. As the progression of global warming, the dry hot winds from the desert is certain to be stronger, last longer, and occur more frequent year after year. Soon we are going to expect week-long blackouts[3]. When will we say enough is enough? Shouldn't we act now before it is too late? Before more people loss their homes or even their life's? You have the power to stop this madness, please help us to do the right thing, so we, and you, can sleep better at night knowing you've done ther right thing!!! And talk about quality of life, because of the fires, not only the residents here have suffered physically and psychologically from the last fires and evacuations, now we are facing the devaluation of our homes and much higher insurance costs even if we could find that rare insurance provider who would still cover us. Let's work to bury the power lines underground now!!!! And become a hero to our community, and other communities around California by becoming an advocate for the right ways in building new powerlines-only build down underground!!!	
Yuemeng Chi	For the safety of the residents, the children and the future of California, shouldn't we make it a rule that all new power lines should be buried underground? Can't we start with the one we are building? And move the existing ones down once possible?	Your preference for underground power lines is acknowledged. Please see Master Response 4, CEQA Process.
Yuemeng Chi	In case SDG&E is arguing the alternative remedies, such as power blackout during hot and windy days. Last year, SDG&E blacked out the power two times with each lasting for a day or two. While this may be manageable for once or twice a year, it is clear that such incidents are on the rise. As the progression of global warming, the dry hot winds from the desert is certain to be stronger, last longer, and occur more frequent year after year. Soon we are going to expect week-long blackouts[3]. When will we say enough is enough? Shouldn't we act now before it is too late? Before more people loss their homes or even their life's? You have the power to stop this madness, please help us to do the right thing, so we, and you, can sleep better at night knowing you've done ther right thing!!!	Your concern regarding safety and power blackouts are acknowledged. Please see Master Response 2, Wildfire and 5, Non-CEQA Issues.
Jung Cho	Please conduct an EIR on SDG&E's project	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Karissa Chou	Please consider the impact to our community. There are other alternatives.	Thank you, your concerns have been acknowledged.
Mariam Choudry	I want an EIR on TL6975.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Carolynn Christenson	Hello, I would like to ask you to conduct an EIR on this project. It is also my understanding that SDG&E committed to burying the cables, but has since decided that their commitment is less important than the additional costs, therefore they are letting their bottom line take precedence over the individual homeowners who will be impacted.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process
Mark Christenson	Please conduct an EIR on SDG&E's project. And please don't steamroll a small group of homeowners because you want to deliver profits to an investor-owned utility.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Jamie Christman	I would like an EIR	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Justin Christman	We strongly oppose the proposed power lines through our community. The risk of fire is already too high. The technology for underground utilities is too prevalent to ignore. To approve this is bad public policy. Please conduct an EIR and save our city from the visual nuisance and more importantly the health and safety our of wonderful community	Your concerns regarding wildfire is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 2, Wildfire, and 4, CEQA Process

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Jean Chronis	I am greatly concerned about the proposal to build power lines near the Rancho Dorado Community in San Marcos. I have been a homeowner since 2000 (original owner) and see no justification for such a project to occur without highly considering alternatives for the suggested powerlines. i am strongly requesting and encouraging the committee to conduct an EIR on the proposed SDG&E's project. Thank you.	Your preference for underground power lines or another alternative is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.
Jeannie Chronis	Please prepare an EIR to better determine appropriate measures to be considered as alternatives to the current suggested power lines proposal. Thank you.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
John Chua	If there is an option of doing this transmission line above the ground or underground,why don't we opt for the long term safety of the project. The long term effect of electromagnetic on humans living in the vicinity has not been fully established. I am sure the only reason they are doing it according to their plans is expenses involved.	Your preference for underground power lines and concerns regarding human health are acknowledged. Please see Master Responses 3, EMF and Operational Noise and 4, CEQA Process
Santiago Chuck	Please prepare an EIR to ensure viable alternatives are developed and thoroughly considered.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Tiffani Chuck	Please prepare an EIR so viable alternatives can be thoroughly considered	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Lori Church	I want a EIR. I do not want these power lines.	Your preference for underground power lines and request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Erin Clark	I'm writing to express my concerns over this proposed project. The environmental concerns and health concerns should be enough to warrant alternative placement of the power lines. As a young community this will be putting lots of children at risk. We have two young children and there are over 30 young kids on our block. This will also disrupt local wildlife in one of the only protected areas in North County. I vehemently object to this powerline proposal!	Your opposition to the proposed project and concerns regarding human health, alternatives, and wildlife are acknowledged. Please see Master Responses 3, EMF and Operational Noise; and 4, CEQA Process. For all other concerns refer to Section 3.4, Biological Resources in the Draft IS/MND.
Scott Clement	I want an EIR on TL6975 69kV Project!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Laura Coca	Pls do not place these fire starters in our community.	Your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire.
Jason Coe	Can I ask you a difficult question? You're a parent, and I am willing to bet that you love your kids 150%, as well the safe and healthy city they were able to grow up in. So why would you want to harm their long term health and future by placing them in danger with the San Elijo Powerline Expansion Project proposed by SDG&E for the CPUC (TL6975)? It's not your fault they haven't conducted additional cost projections or revealed the true costs of other alternatives for the proposed project such as placing lines under ground and protecting our community from our yearly fire dangers. So why am I telling you this? As a resident of San Elijo Hills and the city of San Marcos, I too am just like you and are greatly impacted by the current proposals. It ripped my heart out when I discovered what the proposed power line project can do to my kids in terms of their long term health related to electro magnetic energy, radiation, and potential risk of long term disease. The most frustrating part, is that this can all be avoided. We do not have to place another set of power lines overhead posing risk to our health and extreme fire danger when they can be converted under ground. A family member within SDG&E explained to me the importance of adding this line is due to the stress on	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, and human health are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; and 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Jason Coe (cont.)	the existing system and is partially a reason for our blackouts during Santa Ana winds and seasons. But the current proposal of high voltage power lines over our houses and community is NOT the correct proposal. If you asked the parents of San Elijo Hills what they thought about converting this project underground, they would agree this is a LIFE SAVING move for our families. I urge you to reconsider the current proposal from SDG&E and alter their plans and place these utilities under ground to avoid future disasters and health risks. Please help us protect our community and stand behind your core values of enhancing qualify of life, protecting our trails, recreational activities and above all, making sound financial decisions and PUBLIC SAFETY. Thank you for your time, Jason Coe 858-395-1510 San Elijo Hills Resident	
Liz Coe	NEED EIR!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Jason Coe	CPUC Members, Can I ask you an difficult question? You're parents, and I am willing to bet that you love your kids 150%, as well the safe and healthy city they were able to grow up in. So why would you want to harm their long term health and future by placing them in danger with the San Elijo Powerline Expansion Project proposed by SDG&E for the CPUC (TL6975)? It's not your fault they haven't conducted additional cost projections or revealed the true costs of other alternatives for the proposed project such as placing lines under ground and protecting our community from our yearly fire dangers. So why am I telling you this? As a resident of San Elijo Hills and the city of San Marcos, I too am just like you and are greatly impacted by the current proposals. It ripped my heart out when I discovered what the proposed power line project can do to my kids in terms of their long term health related to electro magnetic energy, radiation, and potential risk of long term disease. The most frustrating part, is that this can all be avoided. We do not have to place another set of power lines overhead posing risk to our health and extreme fire danger when they can be converted under ground. A family member within SDG&E explained to me the importance of adding this line is due to the stress on the existing system and is partially a reason for our blackouts during Santa Ana winds and seasons. But the current proposal of high voltage power lines over our houses and community is NOT the correct proposal. If you asked the parents of San Elijo Hills what they thought about converting this project underground, they would agree this is a LIFE SAVING move for our families. I urge you, as our local government, community members, and fellow parents, to audit the current SDG&E plans and place these utilities under ground to avoid future disasters and health risks. Please help us protect our community and stand behind your core values of enhancing qualify of life, protecting our trails, recreational activities and above all, making sound financial decisions and PUBLIC SAFETY.	Your preference for underground power lines and concerns regarding alternatives, wildfire, human health, and recreational activities. Please see Master Response 4, CEQA Process; 2, Wildfire; and 3, EMF and Operational Noise. For concerns regarding recreational activities, refer to Section 3.16, Recreation in the Draft IS/MND.
Danielle Cohan	This project needs to be put underground if it is to be done at all. The project as it currently stands is short sighted an dangerous to the health and safety of the residents in my community. I believe it will result in a landslide of lawsuits. I urge the planners of the project to reconsider project considering the potential negative fallout including health hazards and fire danger in this area.	Your preference for underground power lines and concerns regarding wildfire and human health are acknowledged. Please see Master Responses 2, Wildfire, and Master Response 3, EMF and Operational Noise

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Gabriel L. Cohan	You must do an EIR and fully analyze alternatives! As a homeowner in San Elijo Hills, I am present at the April 30th meeting because I am deeply concerned about the "plan" to build new above ground power lines through our hills. WE have two young children growing up here who would be exposed along with the rest of the community to the dangers. I lived with my wife through the 2013 fire here (the Discovery Fire) when we had to evacuate while she was 8 months pregnant with my oldest child. There arent enough safe exits in this communit should another fire burn through these hills. I waited several hours to escape with my pregnant wife. The recent fires in Northern California are compelling evidence of the fire hazards from above ground power lines. No excuses justify creating the hazards of above ground power lines to save money instead of below ground. More power lines create multi billion dollar liability for SDG&E should another disaster strike here. It doesn't make financial sense to decrease property values and place everyone at great risk to fire and other power line risks. It is short sighted and asinine. Need to look at environmental impact report/ udnerground lines are the clear best option.	Your request for an EIR, preference for underground power lines, and concerns regarding wildfire, evacuation routes, property values, and human health. Please see Master Responses 4, CEQA Process; 2, Wildfire; 5, Non-CEQA Issues; and 3, EMF and Operational Noise.
Carol Cole	I've been living in Promontory Ridge since 2003, Im right on the Canyon and have experience two fires in 2007 and 2014, this planned community didn't take in to consideration how do we evacuate safely, the roads cannot handle the dense population or the cars traveling on San Elijo Hills road from San Marcos and Escondido,we dont want to have another tragedy like Northern California "Paradise" where the people couldn't get out. NOW, were looking at Hazardous Huge Electrical Lines, we don't know what the EMF Output will be and its affects on Children. The only Safe Solution is to go underground with the wires.	Your preference for underground power lines and concerns regarding wildfire, evacuation routes, and human health are acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; and 4, CEQA Process.
Elizabeth Coll	We already live in a high risk fire zone, please do not further increase this risk. People would be trapped here and unable to evacuate. Hundreds of people could die…	Your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire
Christopher Conlee	An EIR needs to be conducted on this SDG&E project. I have lived in the San Elijo Hills Community since 2002 and have experienced the 2010 replacement of the wood poles to the current steel ones. This has ruined the look of our community and should SDG&E be allowed to increase the lines it will cause a higher health risk to our area and potentially lower our property values. We have enough above ground lines and do not need anymore, and if the power company needs more lines, then they should put them underground.	Your preference for underground power lines and your concerns regarding aesthetics, human health, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.
Debra Connell	I want an EIR!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Kathleen Constantine	I am very opposed to more above ground power lines in San Elijo Hills and want an Environmental Impact Report.	Your preference for underground power lines or another alternative is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.
Jessica Cooper	I want an EIR! The health and safety of our community depend on it!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Karina Copen	As a resident of San Elijo Hills, I strongly oppose San Diego Gas and Electric's (SDG&E) San Marcos to Escondido TL6975 69kV Project (Project). We already have numerous power lines crossing our community and are in a high-risk area for fires. We encourage the company to seek alternatives like underground powerlines to reduce the risks affecting the thousands of residents in this community filled with young families.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
Anna Corbett	After attending the meeting in San Marcos and further studying, I believe an EIR (Environmental Impact Report) is essential before any further action is taken. Please, please do the right thing and have an Environmental Impact Report conducted! Thank You!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Jen Corke	I am a resident in the city of San Marcos, San Elijo Hills community. Based on the recent fires near my home, and the fire that cost the lives of at least 86 people in Northern California…due to electrical lines, I want TL6975 project to conduct and environmental impact report in order to study who will be impacted by the proposed above ground electrical lines and determine if it would pose a public safety issue. Thank you	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process
Angela Corning	I would like an EIR	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
James Corthay	Rancho Dorado is a Residential community. Why must SDG&E install Industrial structures in an area zoned as Residential? By design, our utilities in Rancho Dorado are in the ground. There is no good technical reason why high-power transmission lines can not be installed in the ground as well. An entrenchment-suspension option through the existing easement would be a reasonable compromise. No one wants to look at Oil & Gas production structures out of their living room window. This issue is no different. Thank you, Jim Corthay	Your preference for underground power lines is acknowledged. Please see Master Response 4, CEQA Process.
Kim Corthay	Please conduct an EIR.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Karen Counsell	We have lived in San Elijo Hills since Jan 2002. The existing power lines are already a real issue for many reasons the biggest being fire. We are against adding more. There are numerous other alternatives to use rather than adding another set of power lines to the existing neighborhoods. Sick of hearing that they do not want to pay for things and the cost would need to be passed on in the rates, cost of doing business. Do it right or the homeowners will find another way around them just like we have with solar. When there is a fire caused by their equipment they try to get the taxpayers to foot their mistakes. Our insurance carrier AAA cancelled the insurance after being with them for over 25 years due to the fire risk. After contracting with a new company the rate increased very significantly. We were here during previous wild fire seasons when our neighborhood had evacuation orders and it was a nightmare with one road in and out. In the interest of all residents we are asking that you do not approve this project.	Your concerns regarding wildfire and insurance are acknowledged. Please see Master Responses 2, Wildfire and 5, Non-CEQA Issues.
Stephanie Cowan	I am very concerned about the impact of the proposed SDGE project on our community. In my experience, the current situation has already impacted home values in the community and the proposed project would further negatively impact San Elijo HIlls and our neighbors. Please perform an EIR. Thank you.	Your concerns regarding property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.
Marc Cromer	Please conduct an EIR on SDG&E's project. I cannot believe such an impact plan does not require an EIR. I am a founding resident to SEH in November 2001. My back yard opens to a "protected wildlife" area which is the valley including San Elijo Road. While the power supply is needed, it should be executed with the utmost consideration of environmental impact to ALL stakeholders.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Jennifer Cronin	Please require SDGE to complete a full EIR for this project.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Jackie Crosbie	I think the power lines should go under ground. Currently, They're not safe to live near, noisy, they can cause wildfire, look terrible and decrease property value if you live near one.	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, and property value are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Deb Cruz	I think its unacceptable that SDG&E can put our health and the safety of our homes and families in jeopardy because it is the cheaper way to add power. We already live in a high fire zone are where its near impossible to ensure our homes, more and more of us have our insurance carriers drop us annually for this reason and someone thinks its ok to increase our fire risk in this way and put the lives and health of our families in jeopardy because of harmful waves above ground lines radiate!	Your preference for underground power lines and concerns regarding wildfire and insurance are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.
Jorge Cruz	Its unacceptable that our families health and safety are being put in jeopardy because of SDGE -they know the dangers, we know the dangers. Shame on SDGE for trying to do this the cheap way instead of the right way!	Your opposition to the proposed project has been acknowledged.
Debra Cuccia	I want an EIR on TL6975.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Francis Cuccia	Sir, I would like SDG&E to conduct an EIR so a thorough analysis of viable alternatives can be completed before approving SDG&E's proposed project through Rancho Dorado neighborhood. Results should be thoroughly reviewed prior to the start of this unsightly project. Conducting this study is the ethically and responsible thing for a company such as SDG&E. I would expect an EIR so alternatives such as undergrounding can be considered that will significantly reduce the effects on the environment. It is worth the additional cost to not increase our wildfire risk, or to not destroy the aesthetics of our beautiful neighborhood, or to not cause millions of dollars to be lost in property values. Thank you for your consideration to this important matter.	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.
Rachel Cuevas	C "Conduct an EIR so a thorough analysis of viable alternatives can be completed before approving SDG&E's proposed project" or - "Prepare an EIR so alternatives such as undergrounding can be considered that will significantly reduce the effects on the environment. It is worth the additional cost to not increase our wildfire risk, or to not destroy the aesthetics of our beautiful neighborhood, or to not cause millions of dollars to be lost in property values." or - Just tell your story about why you are concerned about additional power lines running through our communities.	Your concerns regarding aesthetics and wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; and 4, CEQA Process.
Adrian Culjat	SDG&E must be required to prepare an Environmental Impact Report (EIR) before the dangerous power line is approved.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Rebecca Culjat	SDG&E must be required to prepare an Environmental Impact Report (EIR) before the dangerous power line is approved.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Tammy Culp	Is there a reason why these can't be put underground? This is a major health and fire hazard.	Your preference for underground power lines and concerns regarding wildfire and human health are acknowledged. Please see Master Responses 2, Wildfire, and Master Response 3, EMF and Operational Noise.
Natalie Curry	I am concerned about the wildfire risk and evacuation. The community was designed and executed to have underground power lines for this exact reason. There needs to be a alternative solution to your power problems that does not risk lives.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Jason and Carolyn Curry	To Whom It May Concern: We are writing this letter to voice our extreme opposition to Project TL6975. Our primary residence is 2165 Coast Avenue in San Marcos, California. Presently, the lot directly adjacent to our home has an approximately 100-foot tall steel power line pole that is positioned 120 feet west of our fence line. Project TL6975 will place a 2nd pole 50-feet east of the current pole, essentially splitting the difference between our fence line and the current pole. We have included several pictures below to show the distance between our backyard fence line and the current pole: Aesthetically, the poles are an eye-sore. The current poles are horrible enough, but adding additional poles will only further ruin views from our property. Our home has a unique view as it sits atop a hill that has a wonderful canyon and ocean view. Frequently, cars traveling westbound on our residential street stop in front of our house and take pictures of the ocean view and sunsets. The view is partially obstructed by the current electrical poles, and adding more poles and lines will only further diminish both our view and the public's view of the ocean and canyons. Below is another picture taken from our backyard facing the ocean, as well as two pictures showing the view directly in front of our house from our street which is a public road (Coast Ave). When our neighborhood was first constructed in 2001, there were much smaller wooden poles and electrical lines that subtly passed through the neighborhood. In 2010, the small wooden poles were replaced with gigantic steel poles. Now, Project TL6975 calls for even more large poles and electrical lines through our neighborhood. When compared to the original landscape of 2001, Project TL6975 has a significant cumulative effect on the landscape and makes a significant aesthetic impact. Below are two photographs taken by our neighbor that show the landscape of our home prior to the large steel poles being placed in 2010. The original poles and electrical lines are barely visible. Furthermore, the projects impacts the view from a beautiful public park, Simmons Family Park, which is located in our neighborhood. The west end of the park overlooks North County San Diego and boasts magnificent ocean views. Given that the park is a public recreation area with an unusual scenic interest, we find it troubling that there are already very large steel poles in place with power lines impeding the public view as this appears to be a violation of CPUC Rule 20. Placing additional steel poles and electrical lines will result in a cumulative effect to obstruct views from the park. Below is a picture taken from the west end of Simmons Family Park. Simmons Family Park is a family-friendly park that has benches, tables, and barbecue pits for outdoor grilling. Parties occur weekly, and Mylar balloons are commonly brought to the park during the celebrations. Recent attention has been made to Mylar balloons being a fire risk as the balloons can cause an explosion when they contact electrical lines. Power outages also frequently occur from Mylar balloons contacting transmission lines. Here is a link to a recent article regarding this issue: https://www.dailynews.com/2019/05/11/you-are-now-entering-mylar-season-if-youre-not-careful-prepare-for-power-outages-fires/amp/ Given that Simmons Family Park is a family recreational area where parties frequently occur with Mylar balloons, we are concerned about Project TL6975 adding more transmission lines over the park. We are also concerned about the negative economic impact from Project TL6975 to both us personally and to the City of San Marcos. Placing large, additional steel poles throughout our neighborhood and throughout the streets of San Marcos will make our area a less desirable place to live. Our home property value will surely be negatively impacted, as well as the other homes with direct views of the new steel poles. This will result in a decrease in property value of homes and businesses. As property value decreases, so will tax revenue which will negatively impact our local government. We are now working with realtors to analyze home sale prices to show the negative impact on homes that occurs when large steel power line poles are placed near homes. Although the data is not yet finalized in time to be included in this letter, from an anecdotal standpoint the impact is clear—the home directly across from us (2166 Coast Ave) went for sale on MLS late last summer and has yet to be sold, all the while other homes further down our street have sold in a matter of weeks.	Your opposition to the Project, request for an EIR, and other alternatives is acknowledged. Your concerns regarding aesthetics, CPUC Rule 20, wildfire, property values, and insurance are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 5, Non-CEQA Issues; and 4, CEQA Process. Please also see Response I5-4 and I5-15. See Appendix B.2 for comment attachments.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Jason and Carolyn Curry (cont.)	In closing, we strongly appeal to CPUC to approve an EIR so that other viable alternatives to Project TL6975 can be identified. There are alternative ways to complete the ultimate goal of Project TL6975, and a full review of alternatives cannot be reviewed unless an EIR is completed. In an effort to improve our community, these alternatives should be fully explored and perhaps improvements can be made to the current transmission poles and lines such as removing them and placing them underground.	
Jason D.	Can your committee recommend it go underground.	Your preference for underground power lines is acknowledged. Please see Master Response 4, CEQA Process.
Kajetan Dabrowski	Please conduct an EIR on SDG&E's project	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Kimberly Dailey	Please conduct an EIR on SDG&E's project.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Lisa Daniels	Please consider conducting an EIR to ensure that our community remains safe	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Toni Davies	It will impact the environment and not for the best	Your opposition to the proposed project has been acknowledged.
Carl D'benedetto	Request an environmental study before deciding on the validity of the power line addition	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Alan De La Sierra	Prepare an EIR so alternatives such as undergrounding can be considered that will significantly reduce the effects on the environment. It is worth the additional cost not to destroy the aesthetics of our neighborhood and the associated millions of dollars to be lost in property values. I anticipate my own propesty value will be diminished by the placement of additional power lines. In 2017/2018, they installed colored balls on the lines (I assume for aircraft safety) which did not exist for the previous 12 years. Now my view is of steel towers and colored balls in the air. Undergrounding of new facilities should be considered the first choice. Buried facilities are the first choice in urban areas. This should be the first choice unless there is an unreasonable burden on the utility which is not the case in this situation within and around the Harmony Grove, San Elijo Area. Please instruct SGG&E to provide underground lines for this project.	Your request for an EIR, preference for underground power lines, and concerns regarding aesthetics and property values are acknowledged. Please see Master Responses 4, CEQA Process; 1, Aesthetics; and 5, Non-CEQA Issues. See Appendix B.2 for comment attachments.
Randy Dean	As a homeowner adjacent to the current SDG&E powerlines and is with in the area of the expansion lines for this project, I would like to voice my strong opposition. The science is clear - the danger proprietor created by these powerlines was evidenced by the fires in northern California this past year. To add additional high tension lines in this very populated and fire prone area, we would be inviting future disasters. From an economic standpoint expanding these powerlines in their footprint closer to the homes in San Marcos and Harmony Grove where I live, this would negatively affect our property values and possibly cause health issues with the radiation from these lines. Bury the lines if we must have them. Please do not approve this project as currently proposed.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire.
Ralph Dean	As a resident of the Laurels, I am urging you to consider relocating that segment of of the TL6975 rebuild located adjacent to Laurels underground. I am fully aware of the significant cost differential between underground and overhead construction, but consider the increased cost justified due to the negative impact the taller metal poles will have on the character of the neighborhood.	Your preference for underground power lines and concern regarding community character. Please see Master Response 4, CEQA Process; 1, Aesthetics; and 5, Non-CEQA Issues.
Renee Debruin	Requesting an EIR done for this project	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Joan And Dan Decambra	We are adamantly against placing above ground power lines. They put people's lives at very high risk not only of diseases, but fires and death. We have seen this first had in a community we lived near in Denver prior to moving here where people developed brain tumors and increase risk for MS. Lawsuits ensued. With our area as well having higher wind issues than other places this also increases risks for winds rushing through and loss of lives. We can not understand why a company already dealing with present and past lawsuits from fires up north would want more liability issues. It is not a wise decision and recommend better legal counsel. Please do the right thing and it will save you more money in the long run especially now that people have expressed concerns prior to a disaster happening. It's Pandora's box.	Your preference for underground power lines and concerns regarding wildfire and human health are acknowledged. Please see Master Responses 2, Wildfire, and Master Response 3, EMF and Operational Noise
Erik Dekold	I'd like to not have these over my head or my family's heads please.	Your opposition to the proposed project and preference for underground power lines or another alternative is acknowledged. Please see Master Response 4, CEQA Process
Joann Delisle	Please conduct an EIR on the San Marcos project! These towers should be underground!	Your preference for underground power lines or another alternative is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.
Monica Denney	I am requesting that an Environmental Impact Report be done and be presented to our community before deciding on the addition of above ground electrical power lines through San Elijo Hills. Our homes are our biggest investment and need to be protected, not destroyed by our power company. Do the right thing!	Your preference for underground power lines, and request for an EIR, is acknowledged. Please see Master Response 4, CEQA Process
Robert Denney	I don't feel safe with new power lines 150' closer then the ones already in place. They will practically be right over our home. The health risk, not to mention fire risk needs to be studied.	Your preference for underground power lines and concerns regarding wildfire and human health are acknowledged. Please see Master Response 2, Wildfire, and Master Response 3, EMF and Operational Noise.
Jacquie Destefani	Requesting an EIR	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Tony Destefani	I want an EIR	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Erin Dewitt	I'm writing to voice my opposition to project TL6975 69K. I do not want any more power lines close to my home. There are too many already. Power lines should be built underground at every opportunity to reduce the risk of fire and EMFs. This project is proposed in a high fire danger zone, and after having gone through two evacuations and multiple voluntary shutoffs to reduce fire risk it is clear that above ground power lines would only pose a greater risk. They may be more expensive to repair and to initially install, but will be better in the long run for public safety and less risk of damage due to being underground.	Your preference for underground power lines and concerns regarding wildfire and human health are acknowledged. Please see Master Response 2, Wildfire, and Master Response 3, EMF and Operational Noise.
Jesse Di Franco	I, along with the residents of the area affected by this proposal, are clearly opposed to it in its current state. How is it that an underground solution has not been proposed? Has the CPUC forgotten what the P stands for? We're the Public. Please listen to us, and represent us.	Your opposition to the proposed project and preference for underground power lines is acknowledged.
Linda Dicara	Beneath (approximately) Poles 52 to 59 is a walking trail that I use almost daily. This particular segment is approximately 1km in length and takes me about 10 minutes to walk. The addition a a 69kV single circuit is going to increase the EMFs in the path. Without loading (amperage) is not possible to estimate the strength of the fields, but certainly it is going to be more than currently experienced, potentially double or more, since the existing 128kV line is double circuited using phase cancellation configuration. I understand that there are no accepted limits to EMF, so I would like to know whether you intend to close the	Your concerns regarding EMF are acknowledged. Please see Master Response 3, EMF and Operational Noise.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Linda Dicara (cont.)	trail out of safety considerations, or at least post a permanent warning about the field strengths in this area. Thanks you. Linda	
Victor Dicara	Re: Aesthetics I found that some of the location choices SDG&E made of Key Observation Points (KOP) to be self-serving; showing the least impact. I've attached two before and after images from the Rancho Dorado neighborhood illustrating a more severe impact. The SDG&E statement on page 3.1-8 of the IS-MND under Figure 3.1-6 (VP2) falsely states that "The dirt SDG&E access road runs under the existing power line, also in the middle view." In fact the dirt path is a hiking/recreational trail. The view from the Simmons Family park of the Pacific ocean would also be impacted, as I illustrated. Please consider that SDG&E chooses KOPs for their benefit, not the community.	Please see the revised Section 3.1, Aesthetics in Chapter 3, Revisions to IS/MND for updated KOPs, as well as Master Response 1 and response to comment I3-5 regarding comparable simulation methodology. See Appendix B.2 for comment attachments.
Arnold Dickter	Please have an EIR report on TL6975 before construction of this project…I live under and closest to the existing poles and I am concerned for my and my pregnant daughters health if these new poles are constructed. I currently am being treated for stage 4 cancer and stage 4 kidney disease…	Your concerns regarding human health are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 3, EMF and Operational Noise; and 4, CEQA Process
Carolyn Dietrich	Stop the power lines! Power lines are noisy and effect the value of homes.	Your concerns regarding operational noise and property value are acknowledged. Please see Master Responses 3, EMF and Operational Noise; and 5, Non-CEQA Issues.
Robert Digges	We respectfully request that the power lines be buried in order to minimize the impact on the community and the health of the residents.	Your preference for underground power lines is acknowledged. Please see Master Response 4, CEQA Process.
Danielle Dinorscia	I want to see an EIR	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Giang Do	Please conduct an EIR on SDG&E's project	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Jill Dobbie	I'm writing today in reference to the fore mentioned project proposed near my home. The open space that these power lines will occupy is a crucial wildlife conservation corridor in North County San Diego. By adding even more development to this area would be detrimental to several animal species. I hope that SDGE can find a more logical place to add additional lines. This is also a high fire zone. These additional lines will increase risk and jeopardize human safety.	Your preference for underground power lines and concerns regarding wildfire and human health are acknowledged. Please see Master Responses 2, Wildfire, and Master Response 3, EMF and Operational Noise.
Charles Doerrer	Please prepare an EIR so viable alternatives can be thoroughly considered, I fear for the added effect on my young children.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Phebe Doig	Please consider alternative, underground electric wires! In 8 years, I've never seen any repair on our power lines. If repairs are seldom, why can't these lines be underground? People wanted below ground level train tracks in Solana Beach, and it happened, cost more, yes! Much more environmentally aesthetic? Yes!!! People that object to magnetic waves would not have any concern! Thank you!	Your preference for underground power lines and your concerns regarding aesthetics and human health are acknowledged. Please see Master Response 1, Aesthetics; 3, EMF and Operational Noise; and 4, CEQA Process.
Frances Donnelly	I would like to ask that you insist that an EIR take place on SDG&E's project. I have multiple reasons for this request. 1. Why is the EIR necessary? Primarily for three reasons a. We have become aware of facts that were not known in 2017 when the PEA was developed, namely that the risks posed by active power lines during high winds were sufficiently large enough to required shut down of those resources. As evidence please note the Nov. 13 2018 shut down of power that affect communities shown in Exhibit. The EIR will help us understand the full range of risks and allow for adequate planning based on the generated data.	Your request for an EIR and concerns regarding wind/wildfire and evacuation routes are acknowledged. Please see Draft IS/MND section 3.20, Wildfire and Master Responses 2, Wildfire; and 4, CEQA Process. The Draft IS/MND is analyzed for current data presented in 2018 and 2019. See Appendix B.2 for comment attachments.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Frances Donnelly (cont.)	Environmental risks associated with winds can be particular difficult due to the very erratic nature of the element. Only a full EIR will uncover the anticipated impacts. b. There is no content in the submitted documentation that evaluates any range of heightened or reduced risks for fire occurrence based on the increases in target materials that will be dispersed in the new assets relative to what we know is now heightened risks. At the time the PEA was written, 2017, we didn't know how high the current risk was. We found it out by shutting off the power on Nov 13 2018. Therefore any base line assumed at 2017 is irrelevant and should be recalculated. Specifically in Vol II, Chapter 5 SDG&E dismisses undergrounding lines as an option, which may have been adequate thinking based on knowledge at that time. Today we can recognize that only a full EIR can determine if there is justifiably environmental cause for the undergrounding effort. c. On Nov 13 the area called downtown San Elijo was severely affected because the traffic lights for the primary flow of traffic through this section were out for many hours. The outage began before school had started and I have in exhibit 2 shown two photographs, one taken looking up the hill towards Schoolhouse way and the other looking in the opposite direction towards Rancho Santa Fe Road. Due to the early morning power outage occurring before morning commuters had left the development and before school started the traffic on San Elijo Rd was backed up for miles in each direction and there was no means of entry or exist as the medians prevent that. The primary purpose of these pictures is to provide an indication of the risks in this situation. Had emergency equipment been required to access the elfin forest or Quest haven areas or areas in the San Elijo hills community they would have found the streets were all but impassable. There is limited means of turning cars around to exit rather than move forward when there is that much congestion. By combining multiple activities in a single project SDG&E is attempting to gain approval of their project under the "ratesetting" category which allows them different requirements for approval then if each set of the project were addressed individually. By dismissing in Vol II Chapter 5 the other options they further make a case, based purely on their own logic, that a PEA is sufficient for this project. Only the commission in its role can prevent them taking these shortcut with the safety of the lives and resources in our community. Please require an EIR.	
Bonnie Dowd	Please conduct an EIR on SDG&E's power line project through San Elijo Hills/San Marcos. This project could do irreparable damage to children growing up in this community. Most, if not all, people in this community moved here for a safe, healthy environment for our children to grow. Not only could above ground power lines subject them to lifelong effects, it would have negative impact on resale values of homes. Above ground power lines will have an effect on homeowners' views and overall is not aesthetically appealing. The most critical of all concerns, however, is the potential impact on growing children. Please reconsider and allow further evaluation.	Your preference for underground power lines and your concerns regarding aesthetics, human health, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.
Debi Doyle	I am a long time resident of San Elijo Hills in San Marcos. I object against the additional power lines being installed throughout our beautiful community. Not only will they be an eye sore, but they will bring our home values way down, the noise from installation and also afterwards, is worrying. We urge you to install underground instead.	Your preference for underground power lines and your concerns regarding aesthetics, operational noise, and property value are acknowledged. Please see Master Responses 1, Aesthetics; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Michael Doyle	We need an Environmental Impact Report for this project. Wildfires are a very significant risk in our community; we lived through a lot of them and we don't have enough evacuation routes! The risk of wildfires is growing with climate change and SDG&E knows it. Their climate adaptation strategy (UCSD Climate Summit) of turning off our power during strong wind has a huge negative impact on our community and is not sufficient; power lines can cause fires even without Santa Ana winds. SDG&E needs to adapt to the changing environment and put electric lines underground; not just here, but everywhere in San Diego County. CPUC should defend the public interest, not SDG&E's. If CPUC approves the current project it will put our lives in danger.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
Jason Druxman	I attended a meeting today with representatives for the State of California about this proposed project. I along with many of my neighbors were in attendance to protest not necessarily the project, but the scope of work. What I mean by that is, SDG&E is proposing to add power lines above ground within 30 feet of homes. Again, the power lines are not an issue, the issue is that they want to install them above ground with steel/metal poles 60 plus feet in the air. As you probably know, doing this raises the potential for a fire hazard, aesthetically unpleasing, affects property value and the negative and lasting effects of EMF that these lines emanate. Considering it is 2019, why is this even an issue with all the knowledge we have about the environment that these lines are not being placed underground. Placing these lines underground resolves every issue noted. There are approximately 6,000 residents of San Elijo that are being negatively affected not to mention the rising cost of Homeowner's Insurance due to adding an additional fire hazard to this community. It is incredibly concerning as I can only imagine that SDG&E gains monetarily by not putting these lines underground. We should be holding them accountable to do the right thing. I ask for your immediate attention to this issue.	Your preference for underground power lines and your opposition to, and concerns regarding, the proposed project have been acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.
Lisa Druxman	I own a business and a home in San Elijo Hills and am very worried about the power lines going in. As a parent and an influencer in the space of healthy families, I am incredibly concerned about the safety of our children with these new power lines. I believe we are putting our kids at great health risk with the increased EMF. It is unacceptable in today's day and age to consider this.	Your concerns about EMF and human health and safety are acknowledged. Please see Master Response 3, and Operational Noise.
Lisa Druxman	I am a business owner and resident of San Elijo Hills for 17 years. I am fiercely opposed to these new above ground power lines. You are risking our health, our safety and the value of our homes. We have 6,000 residents, all who will oppose and fight this installation. We ask that you figure out how to do below ground power lines. The CPUC is looking for "significant" risk. I assure you that the opposition from these residents will be significant. There is much at risk.	Your preference for underground power lines and your concerns regarding wildfire, human health, and property value are acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.
Jennifer Duke	I want an environmental impact report related to the proposed power line installation.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Colin Duncan	As a long time resident of a beautiful community in San Marcos, I must say I am surprised and disappointed at the proposal to add more power lines in close proximity to schools and hundreds of homes. We shouldn't put convenience and cost over the environment and our families. Please reconsider this decision and focus on the community, not profits.	Your opposition to the proposed project is acknowledged.
Katie Duncan	I am writing to inform those reading this that I am in opposition of the proposed power lines through San Elijo Hills. Not only is this a fire danger to an already impacted area with few exit routes, but will gravely impact property values in the community. As a local Realtor, I can attest that homeowners that may have views obstructed or power lines within close proximity will see a decrease in the value/desirability of their homes. In return, tax revenues coming from properties in San Elijo Hills will be affected - impacting the City as well. I sincerely hope that you will fight for your residents and keep these power lines out of our community. Thank you.	Your opposition to the project and concerns regarding wildfire and property values are acknowledged. Please see Master Responses 2, Wildfire and 5, Non-CEQA Issues.
D. Dunhan	Please conduct an EIR on SDG&E's project!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Barbara Dunn	Please prepare an EIR so viable alternatives can be thoroughly considered. I have lived in a fire area at my previous home in Ventura County and went through a nightmare of a fire brought on by a damaged power line. I never want to relive that experience again! Underground lines are much safer than above ground lines. Please listen to the SEH residents! Thank you for the opportunity to comment	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process
Robert Dunn	Prepare an EIR so alternatives such as undergrounding can be considered that will significantly reduce the effects on the environment. It is worth the additional cost to not increase our wildfire risk, or to not destroy the aesthetics of our beautiful neighborhood, or to not cause millions of dollars to be lost in property values. It seems to me that a direct route between Escondido and San Marcos substations following Barham/Discovery would be half as long a route as the proposed overhead lines and may only be two or three times as expensive including removal of newly abandoned power poles.	Your preference for underground power lines and concerns regarding wildfire, aesthetics, and property values are acknowledged. Please see Master Responses 1, Aesthetics, 2, Wildfires, 5, Non-CEQA Issues. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.
Robert Dunn	Please conduct an EIR	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Alayna Elam	The cost to lives is not worth the cost it will take to put the power lines underground. The increased risk that is generated by the above-ground power lines is not worth the small cost to SDG&E.	Your preference for underground power lines is acknowledged. Please see Master Response 4, CEQA Process
Alayna Elam	What SDG&E is planning is not safe, and while it might be more expensive to put the new power lines underground, it would be smarter. If larger power lines go behind people's homes, it could be a lot of risk. It may be cheaper in the short run (to SDG&E), in the long run it could be much more expensive to our community.	Your preference for underground power lines is acknowledged. Please see Master Response 4, CEQA Process.
Shawndy Elam	This plan is flawed, and will cause physical and financial trouble for all of those impacted by it. The lines should be underground, but at the VERY least, an Environmental Impact Report (EIR) should be conducted. In addition to the problems mentioned above, the impact on our community due to increased fire hazards is immense. We have more people in our area since the fire 5 years ago, and many were in danger then. Allowing this project to go through as planned would be at a great cost, potentially of lives!	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
Zoe Elam	I believe that we should not have the larger power lines above ground behind the houses. It can cause many risks. I believe that the power lines should be underground. It could help greatly, and have much better value to homeowners, and provide more use.	Your preference for underground power lines or another alternative is acknowledged. Please see Master Response 4, CEQA Process.
Tara Ellis	We are extremely concerned about the additional fire hazard this would bring. There are not enough traffic escape routes for evacuation. We know, we sat in our car in front of our house in non-moving traffic during the Cocos fire.	Your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire.
Kate Emmert	I'm concerned about the environmental impact of this proposed construction as well as its impact on property values of the surrounding neighborhoods in San Elijo Hills. I would like to request a full environmental impact report and that you reconsider how you will update the power needs for this area based on those findings and the concerns of neighbors.	Your concerns regarding property values are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 4, CEQA Process and 5, Non-CEQA Issues.
Jan Enemaerke	1. I was shocked to learn that the impact assessment â€“ deemed that the additional and new transmission towers were deemed "less than significant" with regards to aesthetics. I could not DISAGREE more. I find it absolutely ludicrous that the PUC can conclude that this issue is so insignificant. 2. Aesthetically Transmission towers of ANY kind are a significantly negatively impacting the land scape 3. Hundreds of homeowners with a westerly view from San Elijo Hills will be effected. 4. The fact that the PUC DID NOT consider â€œundergroundâ€ transmission line is alarming for several reasons and not only the aesthetic aspect, but all the other reasons various members of the SHE community brought to your attention at the meeting.	Your concerns regarding aesthetics, property value, and underground alternatives is acknowledged. Please see Master Responses 4, CEQA Process; 1, Aesthetics; and 5, Non-CEQA Issues.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Patricia Engelhardt	Good Morning, I would like to express my deep disapproval of the proposed power lines through Elfin Forest/San Elijo and San Marcos. We already have massive power lines running across the city of San Elijo. Please do not place any additional lines above ground! We should have concerns regarding fires, that will most likely at some point become a factor again throughout our neighborhood. If we have above ground power lines, these can pose a serious risk during times of emergency and evacuation. With the high winds we tend to get through our valley, they could go down and spark a fire in a very HIGH fire danger area. In addition, above ground power lines are emitting harmful energy into a densely populated area. All of these factors also deter potential buys and drop property values significantly. I strongly urge the powers that be to please consider underground utilities for public safety and health reasons as well as property values of our citizens. Thank you, Patti Engelhardt	Your preference for underground power lines and your concerns regarding wildfire, evacuation routes, human health, and property value are acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.
Tracey Enzweiler	We do not want powerlines! They are not safe. Look at what happened with PG&E in NorCal. No more above ground power lines!	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
Kathryn Ericsson	To the CPUC: Please direct SDG&E to perform an EIR to explore UNDERGROUNDING alternatives to TL6975. SDG&E is working with SDUUP (San Diego Utilities Undergrounding Program) to not only REMOVE unsightly power poles and power lines from neighborhoods, but to underground them, where they belong: https://www.sandiego.gov/undergrounding SDG&E is doing the same with transmission lines on TWO other projects: In Rancho Bernardo – TL633. Per project manager Vinh Huynh, the reasons include "…better aesthetics…minimizing environmental impacts and future maintenance." https://www.sdge.com/sites/default/files/documents/FINAL_S1850002_TransLine633.pdf AND in Kerny Mesa – TL663. https://www.sdge.com/sites/default/files/documents/FINAL_S1870081%20TL663%20Fact%20Sheet.pdf It is illogical that this same reasoning is ignored for TL6975. We, too, find the cumulative aesthetics of TL6975 to be worse and invasive, with extremely negative impacts. #ClearViewSD is a great program. We in San Marcos want “Clear Skies”, the same as these other neighborhoods. SDG&E’s parent company, Sempra Energy, is a multi-billion dollar company building a huge LNG plant on the Texas gulf coast, and accepting money globally from rich countries like Saudi Arabia. Certainly they can afford to place these power lines underground to protect and improve rather than degrade our precious and vulnerable natural environment. These are NEIGHBORHOODS and COMMUNITIES we are talking about, not desolate desert land where no one lives. It is not logical to build additional power poles, only to spend more money to take them down. Modern contemporary forward-thinking for the future is focused on UNDERGROUNDING, not more dinosaurs. We would like to ask the CPUC to direct SDG&E to perform an EIR to explore more safe and modern alternatives to the currently proposed TL6975. Thank you, Kathryn Ericsson	Your preference for underground power lines, request for an EIR, and concerns regarding Aesthetics are acknowledged. Please see Master Responses 4, CEQA Process and 1, Aesthetics. See Appendix B.2 for comment attachments.
Kathryn Ericsson	I would like to state that I closed escrow on this house November 2017, which was immediately prior to SDG$E proposing this project. We did extensive research to make sure that there was nothing wrong with this community. While we were aware of the powerlines, we had no idea that SDG$E was going to DOUBLE the number of power poles and power lines, and do dynamite blasting, fly helicopters stringing powerlines, run heavy duty equipment, turn off power, internet, phone service and more all so they could greedily run more powerlines at OUR EXPENSE. Had we known, we NEVER would have purchased our home. This has turned what should have been a very happy experience into a hellish nightmare. Please do not allow the additional powerlines and power poles to decimate our community any further than they already are. Thank you.	Your preference for underground power lines is acknowledged. Please see Master Response 4, CEQA Process. See Appendix B.2 for comment attachments.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Leighla Etters	Our family opposes the addition of larger power lines adjacent to our home. This proposed project would have a major negative impact on the valuation of our property and the Laurels Neighborhood as a whole. The addition of these power lines will cause an undue burden on our family. Additionally, we have two small children and are very concerned about the potential impact this could have on their overall health and safety. A possible solution would be to use a safer more modern underground system instead of using the outdated above ground methods. Please consider our position and requests prior to finalizing this project.	Your opposition to the proposed project, preference for underground power lines, and concerns regarding property value and human health are acknowledged. Please see Master Responses 4, CEQA Process; 5, Non-CEQA Issues, and 3, EMF and Operational Noise.
Jonathan Evans	Hello. I was unable to attend the public hearings but I submit my opinion here. I'm absolutely opposed the proposal as it stands with regard to hanging larger poles and more power-lines through residential areas of San Marcos and without any consideration to underground them. This is the 21st Century, not 1889 and it's time for the lines to be buried when they are close to homes. SDG&E know that their time as energy procurers is starting to end and they want to become a 'poles and wires' company in order to make their money maintaining the transmission of power. Their sole reasoning for this proposal is to "save money" but in reality it's to continue paying out dividends for shareholders and not to reduce bills for consumers. They reason that the cost is too high, even though we have been paying franchise fees in order to bury power-lines in San Diego for over a decade now, and that program is underway. Why not here as well? Now is the time to make them do it. These companies do not want to pay on the front end, but they also refuse to pay on the back end by declaring bankruptcy protection when it's convenient. https://www.npr.org/2019/05/15/723753237/pg-e-transmission-lines-caused-californias-deadliest-wildfire-state-officials-sa Sempra will do the same when SDG&E has its next failure, but will attempt to wriggle out of paying and put their 'investors' ahead of consumers and victims. https://www.sandiegouniontribune.com/business/energy-green/sd-fi-sdge-wildfire-appeal-denied-20181114-story.html As a home owner in San Marcos our family also has a personal interest in seeing the lines buried. Please take a look at these photos of our daughter, who was diagnosed with Acute Lymphoblastic Leukemia at age 5. You will see the existing power-lines in the background some of the photographs. https://www.sandiegouniontribune.com/visuals/sd-pg-pirate-ship-is-a-sanctuary-from-leukemia-20180217-photogallery.html We may never know the exact cause but our daughter was born and raised in this home and we'd never given the power-lines much thought. However, it appears that the science is not settled as to the risk of living close to them. Perhaps in a couple of decades we'll come to find out that this was a factor in her devastating illness. https://www.nature.com/articles/s41416-018-0097-7 This is not to mention the risks of fire which i'm sure has been well debated elsewhere. Please don't let this corporation off the hook with a whitewashed EIP and make them bury these lines. The cost of not doing so is too high. thank you	Your preference for underground power lines and concerns regarding wildfire, human health and costs related to the proposed project have been acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; and 5, Non-CEQA Issues.
Linda Lee Evans	We need an environmental impact report for this project! PLEASE…!!!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Dena Everton	I want an EIR (Environmental Impact Report) Please.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
David Exner	It's truly hard to fathom that the CPUC would entertain the thought of ANY new construction of power lines after the disaster we saw this past fall. To add insult to injury, anyone living in my neighborhood on a canyon is now being dropped by their homeowners insurance because of the extreme fire risk. The only possible reason for this that I have found is that the power companies will no longer be financially responsible for fires that are found to be caused by their equipment. Considering the fact that citizens of San Marcos have already done their own research and there are safer underground routes that ALREADY EXIST, I would urge the CPUC to reconsider and maybe even go so far as to use a little bit of forward thinking on matters such as this.	Your preference for underground power lines and your concerns regarding wildfire and insurance are acknowledged. Please see Master Responses 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.
Shaye Exner	Hello, I am writing to request that you Prepare an EIR so alternatives such as undergrounding can be considered that will significantly reduce the effects on the environment. It is worth the additional cost to not increase our wildfire risk, or to not destroy the aesthetics of our beautiful neighborhood, or to not cause millions of dollars to be lost in property values. I dreamed of raising my kids in this house and chose the neighborhood after many months of evaluating the different developments in the area. Adding these power lines would force us to sell the house and start over. Please consider the effect of these power lines on families	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.
Amy Falco	Please find alternate means to get electricity across our city. San Elijo Hills is a high fire area with all the brush on our hills and canyons and the power poles add to that high fire danger. AND they are an eyesore to our otherwise beautiful community. The additional poles will hurt our property values. But nothing hurts our property values more than fire. If the lines must be in our area please BURY them. Thank you. Amy Falco 1651 Sagewood Way, San Marcos, CA 92078	Your opposition to, and concerns regarding, the proposed project have been acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues
Tony Falco	I demand an EIR !! I live in San Elijo Hills an area already a high risk fire danger and do NOT want additional power lines in our neighborhood. Thank you for listening to our concerns.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process
Don Falk	Will this affect or interrupt service at any time for local businesses? Please redact my name from this comment or records. Thank you, D	Your comment is noted. Please refer to Section 2.0, Project Description, for construction and operation schedules and details.
Shawn Fazel	Please conduct an EIR on SDG&E's project	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Kristine Federico	Another comment: Is Ca FIre aware of the installation of these power lines? Kristine C Federico	Please see Master Response 2, Wildfire.
Kristine Federico	Aa a concerned resident of San Elijo Hills for numerous reasons here are my top 2: 1. Fire 2. Safety of our community Kristine C. Federico	Your concern regarding wildfire is acknowledged. Please see Master Response 2, Wildfire.
Kristine Federico	With a billion + in net income from SD&Gs parent company, this project should be buried. Electric lines have been buried since the 60s. Kristine C Federicio	Your preference for underground power lines is acknowledged. Please see Master Response 4, CEQA Process.
Christopher Fernandes	Please conduct an EIR on SDG&E's project.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Katy Ferner	To whom it may concern, As residents of San Elijo Hills we ask that you please deny any permit to build overhead transmission lines in SEH. While we are concerned with the increased fire risk and drop in property value, are main concern is the safety of our two young children (one who has special needs) and the unnecessary exposure to EMF. We recently relocated from the Carlsbad area To the San Elijo Hills community of Atherton. We lived close to power lines in Carlsbad and saw the impact it had on the behavior of our son. While we realize this isn't the only factor regarding the challenges we face with him, we have seen an improvement since the move, including sleeping through the night. We specifically choice this community and spend and absurd amount of money on it, in order to stay a safe distance from the power lines (exposure to EMF). Thank you for taking the time to read this email. We hope that you will consider the increase health risk that this would cause to all the children in our community. All the best, Katy & Toby Ferner	Your preference for underground power lines and your concerns regarding wildfire, human health, and property value are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues
John Ferriter	Please conduct an EIR on SDG&E's project due to negative health impacts and fire danger	Your concerns regarding wildfire and human health are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process.
Christina Fiduccia	To whom it May concern. My words will be limited, but my concerns are unlimited. Adding extra Powerlines into our community is not an option. We have suffered with the existing ones and now you expect us to lay down while you erect another set? NO WAY!! I will fight this with everything I have, legally and take it to the highest Court if need be. These Powerlines do not serve us not most if San Marcos, they serve Vista, Escondido and other areas. We should not need to take the brunt of this project just because you want to save money! If one person develops Leukemia from the EMF we will sue. If one spark comes from your poles and create a fire, we will sue. I understand that this is your right of way xx but it is also our right of way too. These poles need to go underground. Stop this madness, do the right thing. Conduct an EIR	Your preference for underground power lines is acknowledged, as well as your concerns regarding wildfire and human health. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process.
Daniel Fields	Please conduct an EIR.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Darby Fields	Please complete an EIR	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Savannah Fields	Please complete an Environmental Impact Report.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Whitney Fields	PLEASE CONDUCT AN EIR!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Lisa Filice	The power lines are not good for the community and for the children that live very close to them. Please reconsider.	Your preference for underground power lines is acknowledged
Jessica Filpi	We would like an Environmental Impact Report	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Deborah Finney	My concerns as a resident of San Elijo Hills is the safety of my community. During the Cocos Fire, the evacuation posted a critical threat to the safety of my family and many many other families. Putting towers of electrical wires increases that threat. Please note the water main break on 5/16 serves as another example of the difficulty in changing traffic. Although, not a fire, the traffic being rerouted was a nightmare. Keep our community safe, by not exposing us to additional factors that could compromise the safety of the residents of San Elijo Hills. Thank you.	Your preference for underground power lines and your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire; and 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Deborah And Vance Finney	Please stop the powerlines. With all do respect our property is at risk as well as the lives of the residents of San Elijo Hills. We had to evacuate during the The Cocos/Twin Oaks fire in 2014 and we were all very very lucky that the winds shifted, the fire fighters were able to get ahead of the fire and the deterant was dropped. As is was, evacuation was a nightmare and Double Peak school had not yet been built. If we should have another fire, our area could be devastated like areas of northern CA were this past year. Please! Please don't put our children and grandchildren's lives at risk when it CAN be avoided.	Your opposition to the proposed project, preference for underground power lines, and concerns regarding property values and wildfire are acknowledged. Please see Master Responses 4, CEQA Process; 5, Non-CEQA Issues; and 2, Wildfire.
Shayan Firouzabdi	My Note on the Site: Adding power lines above ground pushes the cost to the affected neighborhoods in the form of decreased values for the homes. The right thing to do is allow ALL ratepayers to share the cost burden by providing underground construction. I understand the desire to reduce costs on the project - but the cost burden is clearly and unfairly taxing those homes and neighbors near the lines. While I am on the top of the hill - neighborhood values have a ripple affect, and we will have a reduction in our home value as a result. Let the shareholders or ratepayers share the impact - not our neighborhood. Thank you.	Your preference for underground power lines and your concerns regarding property values are acknowledged. Please see Master Responses 4, CEQA Process; and 5, Non-CEQA Issues.
Robert Fitting	Please require an environmental impact study for TL6975. Additional overhead lines through our communities decreases esthetics, home values and increases fire risk. Placing lines underground along San Marcos Blvd - a shorter route is a more sensible solution for a growing community.	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, and property values are acknowledged. Your request for an EIR is also acknowledged. Please Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.
Melanie Flaim	I would like an EIR please. Very concerned about the impact on our community in emergent evacuation situations.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Robin Flaum	Please do not move forward with above ground power lines in San Elijo. My family moved to San Elijo in 2005. We have and continue to invest in the city of San Marcos, and are raiding 3 kids who go to the schools in SEH and San Marcos. We have been evacuated and or without power due to wildfire threats and wind. We have purchased our home after careful consideration on where the power lines were and have also chosen to pay the high property taxes to preserve the beauty of our community. I and my family beg that you place these power lines either somewhere else, or below ground. Robin Flaum A concerned tax payer and property owner of SEH	Your opposition to the proposed project, preference for underground power lines, and concerns regarding wildfire and property values are acknowledged. Please see Master Responses 4, CEQA Process; 2, Wildfire; and 5, Non-CEQA Issues.
Eric Flodine	Due to the significant impact of this transmission line on the existing residents and the increased potential of fire hazard, we request that a full EIR is prepared for this project. Do not allow SDGE to shortcut the public review process through an IS/MND. Thank you.	Please see Master Responses 2, Wildfires and 4, CEQA Process.
Elizabeth Flores	I would like to see the power lines go under ground. The main concern I have is the health impact as well as fire risk. I would like to see an environmental study done. Thank you	Your preference for underground power lines and concerns regarding wildfire and human health are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; and 4, CEQA Process.
Lorien Floria	I want an EIS!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
David Flowers	I am writing you today to request that a comprehensive Environmental Impact Report be prepared for the SDG&E San Marcos to Escondido, Tie Line 6975 69kv Project. The pro-posed SDG&E power lines traversing, Rancho Dorado, Brighton Ridge and San Elijo Hills developments will have significant negative effects for the residents and the environment. Most concerning is the risk of fire danger. In addition safety, aesthetics, insurance issues and property values are chief concerns that are not covered in the SDG&E proposal. The new power line will: Increase the potential for wildfires. Decrease property values and negatively impact neighborhood aesthetics. Possibly increase health risks. Therefore I am requesting that comprehensive alternatives be studied and that a comprehensive budget be prepared to compare the cost and feasibility of alternatives. Some of my neighbors received notification of this project in the mail. Others did not, including me. I am not sure why I did not receive notification as the existing power lines are quite visible from my home. Please advise why all of our residents did not receive notification. Thank you,	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, human health, insurance, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues
David Flowers	My name is David Flowers and I am writing you today to request that a Comprehensive Environmental Impact Report (EIR) be prepared for the San Diego Gas and Electric San Marcos to Escondido Tie Line 6975 69kV Project. The proposed SDG&E powerlines traversing the Rancho Dorado, Brighton Ridge and San Elijo Hills developments will have significant negative effects for both residents and the environment. Most concerning to me is the risk of fire danger. In addition, safety, aesthetics, insurance issues and property values are major concerns that are not reflected in the SDG&E proposal. This new powerline will:Increase the potential for wildfire, Decrease property values and negatively imapct neighborhood aesthetics, Possibly increase health risks. I'm requesting that an underground alternative be studied and that a comprehensive budget analysis be completed to compare the cost and feasibility of alternatives. Some of my neighbors received notification of this project in the mail. Others did not, including me. I am not sure why I did not receive notification as the existing power lines are quite visible from my home. Please explain why all of our residents did not receive notification.	Your request for an EIR, preference for underground power lines, and concerns regarding wildfire, aesthetics, insurance, human health, and property values are acknowledged. Please see Master Responses 4, CEQA Process; 2, Wildfire; 1, Aesthetics; 3, EMF and Operational Noise; and 5, Non-CEQA Issues.
Tricia Fonseca	I request for an EIR (environmental impact report) I request for EMF testing and reports I'd like to reference to Rancho Bernardo project where sdg&e is converting above ground lines to under ground lines (https://www.sdge.com/sites/default/files/documents/FINAL_S1850002_TransLine633.pdf) My mother's house burned down in Rancho Bernardo during the 2007 fire started by power lines - precedent for shutting down power lines during high fire risk times of year, and ineffectiveness of spending money on power infrastructure that is incompatible with local annual weather patterns I have concerns for negative impact on neighborhood aesthetics and homes	Your preference for underground power lines and your opposition to, and concerns regarding, the proposed project have been acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues
Nancy Forcier	We are against the addition of overhead power lines that will increase the fire hazards that we already face in our backyard! Buried lines would be safer. Please do not endanger lives. More research is needed on the environmental impact of this project.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
Nancy Forcier	Please conduct a full environmental impact assessment! Power lines present a wildfire hazard and are an aesthetic eyesore!	Your preference for underground power lines and your concerns regarding aesthetics and wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; and 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Yvonne Ford	I would like to request an environmental impact report for this project.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Doral Fredericks	The question as to whether we need new power options is not the important one; we do. However, it should not be at the expense of the environment or of peoples' safety. I am a born Californian and have lived here all my life. The impact of projects such of this is so much greater than it used to be. It is essential that an EIR is conducted, but also the impact of above ground towers of the potential for fires in a haevily populated area. We cannot affor a repeat of the Paradise fire. It is simply not worth it when alternative underground options exist.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire
Thomas Frost	The area is a tinderbox, less than 5 miles from a small city, complete with recent recurring wildfire history in similar areas adjacent. If you knowingly construct a power line in this area, without conducting an EIR, and those power lines spark a fire, please ask your personal attorneys to start preparing for civil action by families of victims. Or, please conduct the EIR, and reconsider if perhaps burying power lines is a better, safer option?	Your concerns regarding wildfire is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 2, Wildfire, and 4, CEQA Process
Yutao Fu	I bought my house last year. It has a great view from the 2nd floor balcony, as long as I don't look to the right. The close presence monster steel pools is a big negative factor to the value of my property. They are also risk factors for fire hazard, for which Western Mutural refused to insure my house. Please consider a direct underground alternative which cut the distance of transmission by more than half. Please conduct an EIR on SDG&E's project.	Your preference for underground power lines and concerns regarding wildfire and property values are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.
Helen Fuchs	Please conduct an EIR on SDG&E's project	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Aaron Gaines	These new proposed power lines would further place our home and evacuation routes at risk. Fallen power lines are one of the leading cause of wildfires. This further aggravates our only non-road exit which is a fire access road that runs through and under the current power poles. I have 3 escape routes in a fire emergency. During Santa Ana conditions 2 of my routes have been closed or blocked to the East and the power lines that currently exist block my escape route to the West if it fails or the high capacity lines fall. In wildfire conditions my family could be trapped. This entire neighborhood and the canyon to the immediate North of my house is surrounded but low brush fuel. The aesthetic of the large metal poles is already an eye sore from the original creosote wood poles that were originally installed. Now the proposed addition of more poles closer to our houses is not an option. The better option would be to run these lines underground and plan ahead for more power needs in the future instead of piecemealing. Nothing about these proposed additional power lines is tenable.	Your preference for underground power lines and concerns regarding wildfire and aesthetics are acknowledged. Please see Master Responses 4, CEQA Process; 2, Wildfire; and 1, Aesthetics.
Ryan Gallop	My family and I are against any additional above ground power lines in San elijo	Your preference for underground power lines is acknowledged. Please see Master Response 4, CEQA Process
Ruben Galvan	I think it would be highly irresponsible and completely suspect if an Environmental Impact Report is not conducted regarding the proposed powerline construction project through San Elijo. This should be a requirement before proceeding to give everyone an opportunity to truly understand the impact of the project. Doing otherwise would make it quite clear that certain non-disclosed interests prevail over the best interests for the residents of San Elijo. Please conduct the EIR.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Nanette Gamilla	I am requesting an EIR, please. Thank you.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Robert Garafalo	I would like to see a report on the expected impact on the environment. thank you	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Ashley Garber	Please conduct an EIR on SDG&E's project!!!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Judith Garber	Please conduct an EIR on SDG&E's project.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Marc Garber	I'm not in favor of building an additional tower with additional power lines. This will create an even bigger eye sore and will significantly lower property values for the homes that run the entire length of the power lines. An environmental impact report should be completed prior to the new lines being added. Thank you for your consideration.	Your concerns regarding aesthetics and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 3, EMF and Operational Noise; and 4, CEQA Process.
Heid Garcia	Regarding the TL697569kV Project…my family along with our neighbors are extremely concerned about the proposed new power lines! Our concerns are many: first the health risks especially to young children living in proximity to the power lines. Extreme fire dangers especially to those of us who live in High Risk Fire zones (as told to us by many Home Insurance companies). Concerns about our property values as these monstrosities will not be desirable to future buyers! We are requesting an EIR and ask that future power lines be allocated under ground! The extra cost is nothing compared to the lives that will be protected. Thank you for your time. Heidi Garcia	Your request for an EIR, preference for underground power lines, and concerns regarding human health, wildfire, and property values are acknowledged. Please see Master Responses 4, CEQA Process; 3, EMF and Operational Noise; 2, Wildfire; and 5, Non-CEQA Issues.
Heidi Garcia	In addition to my previous submission: We are Requesting EMF Testing and Reports. Also, History has shown that previous fire evacuations in our community have been dangerous and gridlocked! Our community has since grown in size and the thought of possible future evacuations are extremely concerning and frightening! The addition of more of these horrific power lines will not ease our minds but will add to our fire fears! Thank you once again for your time…please think of it this way…would you like these power lines in your back yard?	Your preference for underground power lines and concerns regarding wildfire and human health are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; and 4, CEQA Process.
Claudia Garczewski	I would like to oppose on the installation of massive power lines through our community/San Marcos.	Your opposition to the proposed project and preference for underground power lines or another alternative is acknowledged. Please see Master Response 1, Aesthetics.
Frank Garner	Please conduct an EIR on SDG&E's project. It is unacceptable that projects such as these be pushed through without proper research and consult with the citizens whom they affect. It is further unacceptable that a project like this occur and undermine the property values people have paid for, when there are readily available alternatives such as underground lines. Thank you!	Your preference for underground power lines or another alternative is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.
Tara Garzanelli Lavaglio	Please conduct an EIR on SDG&E's project	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Flo Gascon	This project puts the lives on my family and neighbors at risk and I am opposed. I want an EIR (Environmental Impact Report) before any further decisions are made.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Dennis Geist	My family and I have serious safety and environmental concerns regarding the proposal to add power lines through San Marcos communities. At a minimum we respectfully request that an environmental impact study be conducted to determine impacts to the health and safety of the communities affected. Over the past 11 years we have been evacuated twice by fires. Recent California fires have demonstrated that above ground high tension power lines pose additional risk of fire during high wind / dry conditions. It's virtually impossible to clear fire fuel from under power lines due to the significant span and fall line between towers. Additionally consideration should be given to the aesthetics and potential loss of property value within the affected areas. IF the power lines are approved, underground installation should be the only option. Although the initial cost is greater the impact to the environment, safety in our community and future risk of aging overhead lines (risk of fire) would justify the Increased expense. Thank you, Dennis and Lori Geist	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, human health, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Stephanie Georege	It is negligent to continue to allow additional above line power lines in a high fire risk zone within feet of where thousands of families live. SDG&E's choice to overlook and try to convince the public and city council that there is no added risk is misrepresentation and greedy. The communities along the proposed area is in many cases so close to family home where there is often only one (1) way out of the community…blocking them in. The Coco Fires (Twin Oaks Fire) in May 2014 closed down Twin Oaks Road and left thousands of residents for hours clogged on a single road for hours trying to get out of the fire area, many put their families on bikes to ride try and ride out. The right decision would be to put the power lines underground in the high risk areas which are so close to family homes with many young children and elderly. The community of San Elijo Hills already pays a very expensive Mello Roos bond to assist the city of San Marcos with utilities, fire, police, schools…their lives and health should not be put at risk by negligent decisions from a For-Profit company, SDG&E that masks itself as having a commitment to the communities safety. I request that the San Marcos City Council require a completely independent environmental, health and safety review of the increased Fire risk & Health risk of the existing and additional electrical power lines. Thank you for caring for the lives of so many in your community. You are in-trusted to do the right thing. Our lives are in your hands, Stephanie George and family San Elijo family	Your preference for underground power lines and concerns regarding wildfire and human health are acknowledged. Please see Master Responses 4, CEQA Process; 2, Wildfire; and 3, EMF and Operational Noise.
Janet Gidner	I want an environmental report	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Elaine Giesbrecht	Please do an Environmental Impact Report (EIR) before making decisions. We are extremely concerned about neighborhood evacuation in case of fire. In the last wildfire it took over an hour for residents to be able to get out of San Elijo!	Your concerns regarding wildfire is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 2, Wildfire, and 4, CEQA Process
Craig Gilbert	Our homeowner's policy has already been cancelled twice since the giant steel power poles went up. Who knows what will happen with another set! I urge you to prepare an EIR so alternatives such as undergrounding can be considered that will significantly reduce the effects on the environment. It is worth the additional cost to not increase our wildfire risk, or to not destroy the aesthetics of our beautiful neighborhood, or to not cause millions of dollars to be lost in property values.	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues
Emerson Gilbert	I'm 13 years old and have lived in this neighborhood my entire life. You are going to ruin the trail system for my family and me if you put more power lines up. My dogs and I already hate walking near the lines because it sounds scary and feels weird and we can tell it's not healthy for us to be near it. Please don't do this!!!	Your concerns regarding aesthetics, EMF, and operational noise are acknowledged. Please see Master Responses 1, Aesthetics and 3, EMF and Operational Noise.
Jennifer Gill	I would like to submit my comment stating that I do not want the proposed powerlines to go through my neighborhood in the San Elijo Hills neighborhood of San Marcos. I feel the proposed above-ground powerline system will: - Increase potential wildfire concerns - Create unnecessary health risks for our children due to increased EMFs along the 12 mile route - Decrease our property values (some more than others but we will ALL be impacted) - Negatively impact habitat for some of our local sensitive species - Negatively impact the aesthetic nature of our homes and community - Potentially impact cultural resources buried along the route Thank you for your consideration in stopping this proposed powerline system. Jennifer Gill	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, human health, and property value are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues. For all other concerns regarding wildlife refer to Section 3.4, Biological Resources in the Draft IS/MND.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Jennifer Gill	I submitted a comment earlier today but I forgot to mention an alternative to the proposed powerline system that will go through my neighborhood of San Elijo Hills, part of San Marcos. The proposed alternative to the above-ground powerline system: - Has none of the above long-term negative impacts on our communities - Has unknown financial consequences due to lack of in-depth budget analysis Thank you for your time and consideration. Jennifer Gill	Your statements are acknowledged. Please see Master Response 4, CEQA Process.
John Gill	I oppose the proposed above-ground powerline system because: - Increase potential wildfire concerns - Create unnecessary health risks for our children due to increased EMFs along the 12 mile route - Decrease our property values (some more than others but we will ALL be impacted) - Negatively impact habitat for some of our local sensitive species - Negatively impact the aesthetic nature of our homes and community - Potentially impact cultural resources buried along the route Thank you, John Gill	Your preference for underground power lines and your opposition to, and concerns regarding, the proposed project have been acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues. For all other concerns regarding wildlife, refer to Section 3.4, Biological Resources in the Draft IS/MND.
John Gill	I submitted a comment earlier today but I forgot to mention an alternative to the proposed powerline system that will go through my neighborhood of San Elijo Hills, part of San Marcos. The proposed alternative to the above-ground powerline system: - Has none of the above long-term negative impacts on our communities - Has unknown financial consequences due to lack of in-depth budget analysis Thank you for your time and consideration. John Gill	Your statements are acknowledged. Please see Master Response 4, CEQA Process.
Nicole Gleason	Please perform an environmental impact report	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Bryan Gonzales	When there's a subterranean alternative, rapid solar adoption, and no EIR, allowing this project is unreasonable. At the very least, conduct an EIR on this SDG&E project.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process
Tina Goodjohn	Please conduct an EIR on SDG&Es project. We live in Rancho Dorado and we already have very, very large transmission lines running through our community. We are also VERY concerned about an increase of fires in our neighborhood. Tina & James Goodjohn	Your concerns regarding wildfire is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 2, Wildfire, and 4, CEQA Process
Dianne Gotla	The power lines are a health risk to our community and a significant fire risk. After everything that has happened in 2018 with the NorCal fires how can you allow this to occur? Peoples lives are at stake	Your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire.
Dianne Gotla	We would like an environment study be performed to evaluate whether the power lines cause a risk to the environment and people. We want to know what the health risks are. Thanks	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Brett Gottlieb	Please conduct an EIR on SDG&E's project	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Sandra (Decker) Gould	Please reconsider installing power lines in our neighborhood! I grew up in the 1950's in San Diego, CA. My mother had a garden in our backyard that fed our family. All my immediate family died after experiencing more than one kind of cancer. I myself am the only survivor after beating kidney cancer. All of us suffered with skin allergies and asthma as well We strongly feel the huge transformers and power lines in our backyard contributed to these cancers. We moved to San Elijo Hills because of the new, clean environment and NO POWERLINES. We are very disappointed there is a good chance this will be the future for our children and their children who also live in San Elijo: Sincerely; Sandra Decker Gould	Your preference for underground power lines and concerns regarding human health are acknowledged. Please see Master Responses 3, EMF and Operational Noise and 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Tiffany Grace	Want EIR	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Stephen Gracheck	I've lived in seven states and CA is the only state that has as practice the majority of electrical lines above ground, especially through residential neighborhoods. The proposed power line intrusion does not consider the impact on neighborhoods from an aesthetic and property value perspective. The lack of consideration of buried lines in neighborhoods is driven from a cost perspective IMO. Minimally there needs to be a environmental impact assessment performed to gauge the anticipated damage the support towers will cause.	Your preference for underground power lines and your concerns regarding aesthetics, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 4, CEQA Process; and 5, Non-CEQA Issues.
Staci Gray	Please conduct an environment impact report on this project. The area proposed is dense with due for fires and evacuations in San Elijo Hills is extremely poor. If one road closes or if a light is out Traffic is horrendous.	Your concerns regarding wildfire is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 2, Wildfire, and 4, CEQA Process
Jennifer Green	We want an EIR!!! No more above-ground power lines in SEH!!	Your preference for underground power lines or another alternative is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process
Ryan Green	As a resident of San Elijo Hills, I am quite concerned about the prospect of new power lines (towers) being built in our community. Please conduct and EIR on SDG&E's project. Thank you!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Matthew Griesinger	I request SDG&E's proposed transmission line project (TL6975) running approximately 12 miles, connecting the San Marcos substation to the Escondido substation not be built using new additional above ground power line poles on any areas where existing rights-of-way do not already exist. Further, no new above ground lines should be installed where CAL FIRE has designated "Very High Fire Hazard Severity Zone". Instead, the new transmission line be built underground as outlined in SDG&E's proposed alternative route C in SDG&E's "PROPONENT's ENVIRONMENTAL ASSESSMENT", dated November 15, 2017 or through a combination of alternatives that SDG&E has considered that meet the project objectives.	Your preference for underground power lines and your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire.
Jamen Griffith	We live in San Elijo Hills (San Marcos, CA) and we are not in approval of the development of these powerlines, as they can be done underground. Our home backs up to the preserve, which is already a major fire hazard and has powerlines existing there. Additionally, we have two young children and we do not feel safe exposing them to such harsh EMFs unnecessarily. We insist on holding off on this project, or going about it a different way. Thank you. Jamen Griffith	Your concerns regarding human health are acknowledged. Please see Master Responses 3, EMF and Operational Noise.
Laura Grothe	Please do not put up large power lines in this area. Is there a meeting where I can voice my concerns ?	Your opposition to the proposed project is acknowledged. Two public meetings were held on April 30, 2019 at 1pm and 6pm in the San Marcos and San Elijo areas in San Diego County.
Dave Grubb	Hello, I am writing to urge you to please perform an EIR for the power line project. This project is a adding an increased fire risk to our already vulnerable community of San Elijo Hills. Placing the new power lines underground is a much safer and environmentally sound decision. We value our tranquil open space and placing more unsafe, noisy, unsightly above ground power lines will significantly increase our fire risk, while also decreasing our property values. Thank you, Dave Grubb San Elijo Hills Resident	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Katie Grubb	Hello, I am adamantly opposed to the construction of more above ground power lines in my San Elijo Hills neighborhood. Since the recent increase in power line related fires in California, I cannot understand how building more of these in an already high-risk fire zone area is even being considered as an option. We did not live here during the last fire evacuation in 2014, but have heard the stories from our neighbors of how they were trapped in their cars for hours, just waiting for the traffic to move so that they could leave the area. With every Santa Ana windstorm, I think about our high risk of fire and the possibility of being trapped here. We live in a beautiful, tranquil community, but the possibility of adding more unsightly, unsafe, noisy above ground power lines has been weighing heavy on my mind. Please, please demand SDG&E to have these power lines placed underground for the safety of our community, while preserving the natural beauty of our surroundings. I am attaching a picture of the existing power lines, which I took from our home in November 2018. I took this picture because I noticed that there was a truck spraying water on one of the towers and immediately thought that they were putting out a fire or trying to cool the lines down. Later, I found out that they were power washing the lines. Either way, it just makes sense to place these dangerous wires underground to lessen the likelihood of wires sparking and catching fire, with less need for such maintenance. I also urge you to perform an EIR before proceeding with this project. Thank you for your time. Katie Grubb San Elijo Hills Resident	Your preference for underground power lines and concerns regarding wildfire and evacuation routes are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process. See Appendix B.2 for comment attachments.
Tina Gulick	Please make sure a proper evaluation is done regarding the SDG&E proposed lines to be built in our area. If absolutely necessary, they should be buried under the ground!	Your preference for underground power lines or another alternative is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.
Srinivas Gutta	I want an EIR on TL6975	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Katherine Hadley	Hello, I am a concerned resident of San Elijo Hills and have serious concerns regarding this project. I am asking the CPUC to consider conducting an EIR for this project and to consider strongly other alternatives (possibly underground lines) to the above ground power lines currently in the plan. Have you truly considered the cost of a possible catastrophic fire destroying our neighborhood from sparking or downed power lines? The loss of lives, property and the potential lawsuits that would ensue afterwards? San Elijo Hills lost its power back in November because SDGE shut it off for fear of the potential fire danger and another horrific Camp Fire scenario. SDGE knows that this area is a extreme fire risk and adding additional above ground poles seems completely reckless. Our neighborhood has only two roads out of the community. We dealt with the Cocos Fire in 2014 and it took more than two hours to get out of the neighborhood with fire looming at the top of the hill. There are also three schools in our bustling community that only makes matters more complicated and possibly even more devastating. There are many other negative impacts to our community if this plan goes forward as is with the above ground lines - more intense EMF's, decreased property values, etc. etc. Please consider any and all alternatives to this project, particularly the underground option and again, please conduct an EIR for this project. Sincerely, Katie Hadley	Your preference for underground power lines and your concerns regarding wildfire, evacuation routes, human health, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Patrick Hadley	I am against the new power lines in San Marcos and you should be too. I encourage you to consider the following before approving this project: 1. Fire Danger: We have been evacuated a few times due to fires - we do not need more risk in our community. This was not part of the original plan and there is not a good evacuation plan which was evident during the San Marcos fires a few years ago - cars were backed up for hours. Are you going to risk hundreds or thousands of lives without exhausting every alternative? If you or SDGE believe that #1 is NOT an issue, please explain why SDGE has turned off our power as a 'precaution' during strong Santa Ana wind season? 2. EMF - Where is the independent report on the effects of EMF near San Marcos High School (4000 kids attend) and our homes? 3. We already have one giant pole, it is not fair to add another one in our backyard. In addition to being an eyesore, many people are losing value on their property ($50,000 or more.) and some are finding it hard to get home owners insurance because we are in a high fire zone. 4. It is 2019 - There is much better technology, including under ground lines. It's embarrassing that we still use dangerous, giant, ugly poles and wires. CA should be better than this. I know you will do the right thing and thank you in advance!	Your preference for underground power lines and your opposition to, and concerns regarding, the proposed project have been acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues. See Appendix B.2 for comment attachments.
Chris Hall	Please conduct an EIR on SDG&E's project	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Ed Hall	I was an original purchaser in the Rancho Dorado community in 1999. At that time the powerlines were small wooden poles that had minor impacts to the esthetics of the area, the view to the ocean, and the trails through fairly uninterrupted habitat and open space. Then cam the steel monolithic towers that profaned the landscape and views and cast a pall when we ran or biked or walked the trails and polluted the view all the way to the ocean. Now we are to abide another set of monstrosities which are hazardous to humans and destroy wildlife and our enjoyment. Lastly I KNOW that my value and equity in my home will be adversely impacted. That would be my retirement fund we are talking about. Don't let them do it. Make them go underground. I entreat you.	Your preference for undergrounding power lines and concerns regarding aesthetics, wildlife, human health, and property value are acknowledged. Please see Master Responses 4, CEQA Process; 1, Aesthetics; 3, EMF and Operational Noise; and 5, Non-CEQA Issues. For all other concerns regarding wildlife, refer to Section 3.4, Biological Resources of the Draft IS/MND.
Edward Hall	Please conduct an EIR on SDG&E's project. In addition: Failing to underground the lines is purely an issue of cost for SDGE in the face of weak opposition. Immediately East of San Marcos the power lines on Palomar Airport Road magically dive underground. Why is that? The proposed main line poles obviously will destroy even more species habitat and would not be tolerated elsewhere where there has been enacted a strong MSCP. Short term greed does not obviate the handwriting on the wall that one day soon all transmission lines in fire prone SO Cal will be required to be undergrounded. Start with this one.	Your preference for underground power lines or another alternative is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.
Gregory Hall	I respectfully request that the California Public Utilities Commission require SDG&E to conduct a full and comprehensive Environmental Impact Report on the TL6975 project. The proposed Segment 2-New Build is adjacent to, and would be visible from, my home. The Public Draft Initial Study/Mitigated Negative Declaration was substandard and utterly inadequate. The proposed doubling of enormous steel transmission poles and overhead power lines will significantly and negatively impact the aesthetics and views from my home. The doubling of poles and power lines will significantly and negatively impact nearby Simmons Family Park and surrounding hiking trails, which my family and I use regularly. And the doubling of poles and power lines will significantly and negatively impact our health, safety, insurance rates, and property values. Only with an Environmental Impact Report will you see the true impacts and flaws of this proposed project. The proposed TL6975 project must not move forward before the true impacts are understood and discussed by us, the tax-paying residents affected by it.	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, human health, insurance, and property value are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Kathy Hall	My concern with this project is fire. The majority of wildfires are caused from above ground lines. I've not seen any of these size poles running directly through any neighboring community. In fact, most communities have placed them underground. Our community will look like a power plant. Our beautiful trails which connect to existing Carlsbad trails will be less useable. SDGE has not shared with the community what these poles look like. I can only assume they are double the size of the already obtrusive ones. Please conduct further studies for an alternative.	Your concerns regarding aesthetics and wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process.
Kathy Hall	Provide a EIR on TL6975	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Jodi Hallen	Please perform an assessment on this proposed project. Our small town in SEH has become over built, riddled with traffic and dangerous drivers and it has lost all appeal of what was promised by the developers.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process
Lynda Halttunen	We need an EIR (Environmental Impact Report.) The health and safety of our community depends on it! I want an EIR on TL6975!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Stacey Hamilton	"I want an EIR on TL6975"!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Michele Hannemann	Please prepare an EIR so viable alternatives can be thoroughly considered. And after what happen up north with the Camp Fire and that fire being caused by above ground power lines…please do the responsible thing and get these additional power lines underground!	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process
Rakhee Haridas	Power lines should not be going thru neighbourhoods…do an environmental study for impacts and look for another solution maybe. Underground cables or another route for the lines	Your preference for underground power lines or another alternative is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.
Barbara Harlow	As a resident of San Marcos I would like to: - request an EIR (environmental impact report) - request EMF testing and reports - reference to Rancho Bernardo project where sdg&e is converting above ground lines to under ground lines (https://www.sdge.com/sites/default/files/documents/FINAL_S1850002_TransLine633.pdf) Voice concern over previous fire evacuations, or examples of California fires started by power lines Indicate precedent for shutting down power lines during high fire risk times of year, and ineffectiveness of spending money on power infrastructure that is incompatible with local annual weather patterns. And: -Voice my concern for negative impact on neighborhood aesthetics and home values Voice the fact that insurance companies are cancelling our fire insurance and those who will insure us require increasingly high rates because of risk. Mention that our community has limited access in and out in an emergency.	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, human health, insurance, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.
Doug Haroldson	As a homeowner in the Rancho Dorado neighborhood for over 17 years I strongly object to this project; the transmission line upgrade that was installed years ago is an ugly eyesore and has resulted in lowering property values…I do not want to see this happen AGAIN! We all know the primary method for SDG&E to add earnings is to build infrastructure projects like this and the need is suspect with utility load decreasing over the last few years…why doesn't the utility add a battery storage project instead??? Not to mention the added fire danger that will be created.	Your opposition for the proposed project and concern regarding aesthetics, property values, and wildfire is acknowledged. Please see Master Response 1, Aesthetics; 5, Non-CEQA Issues; and 2, Wildfire.
Kristina Harvey	I am a homeowner in San Elijo Hills and am adamantly opposed to SDG & E building power lines here in my community.	Your opposition to the proposed project is acknowledged

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Danielle Harway	How can you say saving money is more important than civilian's health, let alone our lives? Where you living in our community in 2014 when we under forced evacuation and sat in traffic for HOURS watching the flames burn towards us and our families? Cars literally couldn't move because the fire was blocking one of our two roads in/out of the community with tens of thousands of people just sitting-we just witnessed the same situation in Paradise yet you want to do that to us AGAIN? How could you sleep at night with that on your hands? Where is out environmental impact report? We can also talk about the loss of revenue our city will face with dwindling property values and so many other factors of impact but none more so important than human lives. It starts and stops there. Do the right thing. If power lines are needed THEY MUST GO UNDERGROUND. (Please redact personal contact information before using)	Your preference for underground power lines and your concerns regarding wildfire is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 2, Wildfire, and 4, CEQA Process.
Rick Harway	First and foremost, above ground power lines are a health and safety hazard concern, primarily related to fire danger not to mention cancer and other health risks. In addition, above ground power lines decrease property values and thus a main revenue stream to the city and state from property taxes. Lastly, they are unattractive to look at an detract from the many spectacular views San Elijo Hills has to offer, again bringing down property values and future revenue to our city by deterring people to move here.	Your concerns regarding property values are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; and 5, Non-CEQA Issues.
Stephen Hatch	This, as everyone knows, creates a wildfire danger. Our community has one way in and one way out at either end. If a fire does start where these lines are we will be trapped. People will die, many people. It is completely preventable by just burying the lines. By the way, look around San Elijo Hills. How many homes have converted to solar? I know in my neighborhood that number is about 50-60%! Why do we have to bear the burden of the antiquated electrical system?	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire
Victoria Hawkins	I want an Environmental Impact Report	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Paul Hayes	The beauty of our little community has been slowly worn away by new development and increased traffic. It will only get worse when more large power lines are constructed, obstructing our view or the hills. Underground power lines would be a far better option since they won't affect the beauty of our community (at least after their construction is done). If projects like this continue to go through unchecked, there will soon be no reason for me to stay in this community.	Your preference for underground power lines and concerns regarding aesthetics are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics and 4, CEQA Process.
Sabine Heidenreich	Please conduct an EIR on SDG&E's project.	Your request for an EIR is acknowledged.
Jessica Heinz	As a homeowner in San Elijo Hills who has twice been evacuated due to wildfires, I object to the SDGE proposal to build 12 miles of above ground high transmission lines in this neighborhood. Recent rains and continuing climate change do not bode well for control of fires in our area. Especially in light of very limited evacuation routes in this crowded neighborhood. There are alternatives, underground wires or relocating the lines to less congested areas of the county.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire.
Jerry Heitschmidt	Do the right thing and conduct an EIR	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process
Allisen Hemple	Prepare an EIR so alternatives such as undergrounding can be considered that will significantly reduce the effects on the environment. It is worth the additional cost to not increase our wildfire risk, or to not destroy the aesthetics of our beautiful neighborhood, or to not cause millions of dollars to be lost in property values.	Your preference for underground power lines and concerns regarding wildfire, aesthetics, and property values are acknowledged. Please see Master Responses 1, Aesthetics, 2, Wildfires, 5, Non-CEQA Issues. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Allisen Hemple	I oppose the above ground power lines in San Elijo Hills due to concerns about public safety and health hazards.	Your preference for underground power lines or another alternative and your concerns regarding human health and safety are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; and 4, CEQA Process.
Allisen Hemple	Prepare an EIR so alternatives such as undergrounding can be considered that will significantly reduce the effects on the environment. It is worth the additional cost to not increase our wildfire risk, or to not destroy the aesthetics of our beautiful neighborhood, or to not cause millions of dollars to be lost in property values	Your request for an EIR, preference for underground power lines, and concerns regarding wildfire, aesthetics, and property values are acknowledged. Please see Master Responses 4, CEQA Process; 2, Wildfire; 1, Aesthetics; and 5, Non-CEQA Issues.
Andrew Hendrickson	Please conduct an EIR on SDG&E's project	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Jennifer Hendrickson	Please conduct an EIR on SDG&E's project	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Elliot Herman	My name is Elliot Herman. I am currently a resident of San Elijo Hills and the president of the homeowner's association. I would like to take this opportunity to express my concerns about the proposed new power line and poles that will be placed in San Elijo on two sides. In Saturday's Wall Street Journal, it was reported that PG&E has a plan to prevent wildfires by shutting down the power grid. The power grid needs to be shut down because above ground power lines are in danger of breaking in High winds in fire prone areas. Isn't this exactly what the new lines will be doing here in San Elijo because they go through Elfin Forest? Is the PUC going to allow SDG&E to put at risk the $3 billion worth of houses here in San Elijo? Fire danger is not just a possibility, it is the reality here. The very area that this line is going to put at risk was on fire. We were lucky as a DC-10 plane loaded with fire retardant was dropped on the flames and stopped the fires progression just before the top of double peak. If it had not worked, the fire would have gone through San Elijo. When we were told to evacuate, it took two hours to go the 2 miles to exit west via San Elijo Road, the only way out. Since then, there have been hundreds of new homes added to the area along with a new school. I would like to take a minute to talk about the unintended consequences of these new power lines. That is the cost of fire insurance. As president of the HOA, I hear from many residents that their fire insurance has either gone up dramatically or they have been cancelled. It will probably cost more over the lifetime of the lines in additional insurance costs to the residents of San Elijo and to SDG&E as opposed to the additional cost to have had them buried underground in the 1st place. Now let's talk about the underground root between the 2 substations. One of the stations is on Discovery street which is set to be completely rebuilt from the bottom up as part of the city of San Marcos Creekside development. The city also has plans to lengthen Discovery street to attach it to Barham road near the intersection of Barham and Twin Oaks by Cal State San Marcos. That is almost one third the way between the two stations. This route has not been fully considered. If the line continued down Barham another one third of the way, it would then connect with the existing Sprinter tracks and the lines could be underground next to the tracks all the way to the other power station. You would then have a solid underground line between the station that would never be affected by any fire possibility or any other weather. This will increase the reliability of service between the two stations dramatically and isn't that the purpose of the new line in the first place. Last, what we need now is an order from the PUC to order SDG&E to complete an Environmental Impact Report (EIR). The current report you have says that there are no major issues unresolved. That is just not true. There are three issues that are just being overlooked. First, the aesthetics after the project will be	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, human health, insurance, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues. See Appendix B.2 for comment attachments.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Elliot Herman (cont.)	horrendous for those who live close to the new lines. Second, housing will be affected because of the long-term increase in fire insurance costs because the lines will be in a fire prone area. Third, EMF's and fear of wildfire will always be present. This is a public safety issue. A complete EIR would allow for consideration of the complete environmental impact of this project and to truly consider all alternatives. Thank you. Elliot Herman	
Sandra Herman	Please have SDG& E do an EIR This current plan is such an increased fire hazard that it scares me to death. Evacuation is extremely difficult since so many more homes were built in recent years. Please take into consideration the residents safety b	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process
Ethan Hermanson	hello, I am Ethan and I am 8 years old. Can you please cut the electricity poles take themtake away? THey are really big and can cause fires. I see them when I play with my friends outside, thank you.	Your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire.
Nicole Hermanson	In support	Your support of the proposed project is acknowledged and appreciated.
Sandra Hermanson	Please perform a comprehensive EIR SDGE's TL6975 69kV project. Please request that the EIR includes the impact this project will have on humans. Please let's never forget the horrible death that dozens of people suffered in the Paradise fires. Fires caused by power lines, fires that moved so fast that firefighters could not control until it had destroyed many lives, homes, and businesses. The survivors are still suffering. Please think of the more than 4500 children that go to school in San Elijo HIls and the thousands more that live here, surrounded by unhealthy power lines that emit harmful radiation day and night. Please consider the decrease in the value of our homes, it ultimately affects our children's future. Please imagine the amount of harmful chemicals being sprayed to the vegetation around the towers to prevent growth. How those chemicals affect the wildlife and the residents walking the trails with their dogs or biking with their kids. It's a nonsense to have above-ground powerlines going through residential neighborhoods Thank you.	Your preference for underground power lines and your concerns regarding wildfire, human health, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues
Sofia Hermanson	I am a 14 year old and an 8th grader at San Elijo Middle School. Next year I will be attending San Marcos High School. I wanted to let you know that I can see the power lines from my bedroom window and that the power lines that will be installed so close to SMHS will be dangerous if they catch on fire and spread. During our fire drills we don't evacuate the campus which puts our lives in more danger. Please order an EIR	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process
Isaac Hernandez	I am a resident in the city of San Marcos, (San Elijo Hills community). Based on the recent fires near my home, and the fire that cost lives in Northern California…due to electrical lines, I want TL6975 project to conduct and environmental impact report to properly study who will be impacted by the proposed above ground electrical lines and determine if it would pose a public safety issue.	Your request for an EIR and concerns regarding wildfire and public safety are acknowledged. Please see Master Response 4, CEQA Process and 2, Wildfire.
Kimberly Herrmann	No more power lines! Bad for our health and our property value. Our community already has sets of huge power lines running through it, no more!!!	Your preference for underground power lines and your concerns regarding human health and property value are acknowledged. Please see Master Responses 3, EMF and Operational Noise; and 4, CEQA Process.
Andrew Hessick	Stop the powerlines. Keep our communities safe and our property values intact.	Your statement and concerns regarding safety and property values are acknowledged. Please see Master Response 5, Non-CEQA Issues.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Brandi Hessick	PLEASE DO NOT DO THIS TO OUR COMMUNITY!! THE FIRE DANGERS AND PROPERTY VALUES WILL PUT OUR COMMUNITY AT SAFETY RISK AND FINANCIAL LOSS. WE ALREADY HAVE TROUBLE GETTING INSURANCE TO COVER OUR HOMES.	Your concerns regarding wildfire, insurance, and property value are acknowledged. Please see Master Response 2, Wildfire; and 5; Non-CEQA Issues.
Laura Hicks	An EIR needs to be done before putting in more power lines. This is a fire hazard and with minimal evacuation routes in this overcrowded area this may put the safety of all residents in danger. We evacuated in the fire May 2014 and it took over an hour to drive 1 mile. If there was a fast moving fire coming through town thousands of people would be killed	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
John Hiett	I request that an Environmental Impact Report be completed on the proposed TL6975 69kV Project.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Ashley Hill	As documented by numerous studies in nearly every state, installing additional above ground power lines is a danger to the health of our families with the increased magnetic fields that are proven to contribute to rising rates of cancer and leukemia. It is proven that the magnetic fields reach 1/4 of a mile in all directions, polluting our neighborhoods, schools and outdoor lifestyle with a startling amount of excess radiation. While it is impossible to escape EMF exposure even with underground placement, it is proven to be far less of a risk. Additionally, San Elijo Hills is in a major wildfire zone and evacuation disaster should another event similar or worse than the Cocos fire occur. Above ground placement of the lines jeopardizes the public safety as evidenced by the 17 fires just last year in CA that were thought to have been caused by above ground power lines. With our high utility bills and taxes we pay, put those funds (for once!) towards something truly valuable…our lives. Spend the money to install the needed lines underground, the only option that will work for our community!	Your preference for underground power lines and concerns regarding wildfire and human health are acknowledged. Please see Master Responses 2, Wildfire, and Master Response 3, EMF and Operational Noise
Francie Hill	I want an IER	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Kelly Hill	We don't need more above ground powerlines which increase fire danger in an already HIGH Fire Zone that historically has had fires and HUGE evacuation issues associated with the densely populated area with not enough roads to safely evacuate families. Please conduct an EIR so alternatives such as undergrounding can be considered that will significantly reduce the effects on the environment. It is worth the additional cost to not increase our wildfire risk, or to not destroy the aesthetics of our beautiful neighborhood, or to not cause millions of dollars to be lost in property values. We bought this house one year ago and powerline location was a critical part of our home selection criteria! Please do not share my address outside of this correspondence. Thank you.	Your preference for underground power lines and your opposition to, and concerns regarding, the proposed project have been acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues
Scott Hilmen	Prepare an EIR so alternatives such as undergrounding can be considered that will significantly reduce the effects on the environment. It is worth the additional cost to not increase our wildfire risk, or to not destroy the aesthetics of our beautiful neighborhood, or to not cause millions of dollars to be lost in property values	Your preference for underground power lines and concerns regarding wildfire, aesthetics, and property values are acknowledged. Please see Master Responses 1, Aesthetics, 2, Wildfires, 5, Non-CEQA Issues. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Tina Hilmen	Prepare an EIR so alternatives such as undergrounding can be considered that will significantly reduce the effects on the environment. It is worth the additional cost to not increase our wildfire risk, or to not destroy the aesthetics of our beautiful neighborhood, or to not cause millions of dollars to be lost in property values	Your preference for underground power lines and concerns regarding wildfire, aesthetics, and property values are acknowledged. Please see Master Responses 1, Aesthetics, 2, Wildfires, 5, Non-CEQA Issues. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.
Jeffrey Ho	I want an EIR on TL6975	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Carrie Holburn	Please prepare an EIR so viable alternatives can be thoroughly considered	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Robin Holmquist	When shopping for our home, I was a little put off by the current poles - but not enough to not move into our gorgeous neighborhood. The extra poles will cause even more of an eyesore; leaving our Nieghborhood less desirable for future buyers.	Your concerns regarding aesthetics are acknowledged. Please see Master Response 1, Aesthetics.
Jeff Holroyd	Please continue to research and conduct an environmental impact report regarding these proposed power lines. These would be detrimental to our health and our kids health as their systems are still developing. This would cause my family to move out of San Elijo Hills.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process
Kristine Holroyd	We need safety plans and procedures in place for our SEH community.	Your comment and concerns about safety is acknowledged.
Linda Hope	I want an EIR on TL6975. Thank you.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Kim Horanyi	As a current resident of San Elijo Hills, as well as a resident during the last fire evacuation, I am very concerned about the proposal to install additional above-ground power lines in a high fire risk neighborhood. During recent windy conditions, the power was turned off in our neighborhood to prevent above ground lines from starting fires. It does not make sense safety-wise or financially to continue building power infrastructure that is unusable during recurring annual environmental conditions that are increasing in frequency. There are precedents in other communities of power lines being installed under ground for fire safety, and we require the same safety precautions. As a secondary concern, we are also concerned with the additional EMF introduced into the neighborhood, and would require testing to evaluate whether the new lines would increase EMF in the homes adjacent to the new lines. Thank you for your careful consideration of our safety requests.	Your preference for underground power lines and concerns regarding wildfire and human health are acknowledged. Please see Master Responses 2, Wildfire, and Master Response 3, EMF and Operational Noise.
Michael Hoslar	Hi, As a resident of the Cedar Crossing community within San Elijo Hills that will be impacted by this project I'd like to voice my concerns. First and foremost, the increased risk of wildfire resulting of these power lines should be an absolute non-starter for the project. I am personally offended that the financial savings of installing these power lines thru a very densely populated area already prone to wildfires rather than placing them underground is driving this request. This is the epitome of short term thinking that gets utilities and agencies in trouble as the long-term cost will surely outweigh any short term savings - when future wildfires inevitably occur SDG&E will be at the forefront of lawsuits. I just pray that those lawsuits are limited to environmental mis-management and financial liability for damaged property, and don't include wrongful death due to somebody needlessly losing their life because of gross mis-management and planning. This proposal should would never have been acceptable, but to be reviewing it on the heels of all the lost life and damaged property in California over the past year is simply unconceivable - think PG&E and Thousand Oaks. I beg the CPUC to require an environmental impact report (EIR) be conducted to properly assess the potential impact to our communities - both from the cumulative aesthetic impact these power lines would have in conjunction with past and future projects as well as a wildlife safety perspective.	Your preference for underground lines, request for an EIR, and concerns regarding wildfire and aesthetics are acknowledged. Please see Master Responses 4, CEQA Process; 1, Aesthetics; and 2, Wildfire.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Michael Hoslar (cont.)	Please stick to your values and consider the lives of residents in this beautiful family community when making your recommendation so that an appropriate level of due diligence is performed. With great concern, Michael Hoslar	
Beth Houser	I believe that since we are already in a high fire danger area, we need to understand what are the risk for fire. Also what do the power lines contain that have an impact on our childrens health.	Your preference for underground power lines and concerns regarding wildfire and human health are acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; and 4, CEQA Process.
Greg Houser	There are already too many power lines in this area, and the extreme fire dangers in this area should cause utmost concern in adding any more lines. The lack of roads in and out of this area has already been exposed in the last fire.	Your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire.
Phillip Hoy	we need an EIR on SDGE proposed projecr that will run through san elijo hills	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Jeff Huang	Dear CPUC commissioners, We are deeply concerned about the safety of our community and the existing and new threat caused by the power lines. For the safety of the residents, the children and the future of California, shouldn't we make it a rule that all new power lines should be buried underground? Can't we start with the one we are building? And move the existing ones down once possible? Talk about quality of life, because of the fires, not only the residents here have suffered physically and psychologically from the last fires and evacuations, now we are facing the devaluation of our homes and much higher insurance costs even if we could find that rare insurance provider who would still cover us. Let's work to bury the power lines underground now!!!! And become a hero to our community. Best regards, Jeff huang Incoming Residents of San Marcos	Your preference for underground power lines and your concerns regarding wildfire and insurance rates are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.
Wei Huang	Given the mass fire from PG&E disaster, it is better to reconsider the project. We want a safe neighborhood.	Your concerns regarding wildfire and human health are acknowledged. Please see Master Response 2, Wildfire.
Ilana Huff	Need environmental review? This is a fire hazard.	Your concerns regarding wildfire is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 2, Wildfire, and 4, CEQA Process
Ilana Huff	I am concern of the health hazard being so close to power lines. Depreciating property values and the look of them. With technology now. They should be underground. I would like to ask if the people that are for it, they would love to have the powelines in their back yard. Why should they go in ours.	Your preference for underground power lines and your concerns regarding aesthetics are acknowledged. Please see Master Response 1, Aesthetics, and 4, CEQA Process.
Bill Huffsteder	Please conduct and EIR and provide results of the test. Thanks!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Alissa Hummel	Please conduct an EIR on SDG&E's project	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Kurt Hummel	Please conduct an EIR on SDG&E's project	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Daryl Hunter	This is a follow on comment to the one I made at the San Elijo CPUC meeting at the end of April. My family and I remained concerned about the aesthetic impact of the additional towers and lines. As proposed, the new line will run right over my property and per the rendered view, the new tower and lines will be both closer and lower than the existing tower and lines. This will put the lines within our normal sight line when we are enjoying our property where as the current lines are at least somewhat above our normal sight line from the front windows - we still see them when outdoors on our patio of course. The new lines will decrease our property value for several reasons. The atheistic impact as described above, the concern about human exposure to electromagnetic field (emf) emissions, and the concern about fire hazard. The new line may also impact our ability to get fire insurance. The new line being closer will certainly increase the exposure of emf to our family. The new line runs directly over my driveways and fencing. My property is enclosed by an iron fence and there is the potential for the fence to become electrified should the line fall. These high voltage lines emit audible noise when in operation. The new line will be close enough that we will hear the noise at night when trying to sleep with the windows open. I am a licensed amateur radio operator. The line has the potential to generate significant radio frequency noise on the HF bands on which I operate. There is also a potential risk should a line fall and cross any guy wires or feed lines to my ham radio antennas and equipment. We strongly urge that an environmental impact study be conducted and that the alternate direct underground route be considered before any further consideration of this project is taken.	Your preference for underground power lines and your opposition to, and concerns regarding, the proposed project have been acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues
Dennis Hurley	Please conduct an Environmental Impact Report on SDG&E's project.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Larry Hurley	Keep everything below ground! Safety first! Come on guys. This is 2019. Texas has figured out how to do this why can't we ?	Your preference for underground power lines is acknowledged. Please see Master Response 4, CEQA Process.
Lori Hurley	Please conduct an Environmental Impact Report on SDG&E's project.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Sibil Iglesias	We need an EIR.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Henry Ingorvate	I am an original home owner from 2001& when we decided to move to Rancho Dorado there was SDGE wooden poles with three wires one house way from our property. See picture 475. Years later, SDGE removed the wooden poles & replaced them with taller steel poles with 12 wires. See picture DSC 5746. This past year our house insurence was cancelled after having the same insurance company for 28 years & no insurence claims were ever filed. The reason given was our home was too close to brush and SDGE power lines. Due to the 2007 fires caued by SDGE, the company was cancelling home owner insurence. Based on the Union Tribune article May 2, 2019, the PUC & Courts denied SDGE permission to charge the customers. The PUC should help to protect property and human life by supporting all future underground power cables.	Your preference for underground power lines and concerns regarding aesthetics, insurance, and wildfire are acknowledged. Please see Master Response 4, CEQA Process; 5, Non-CEQA Issues; 1, Aesthetics; and 2, Wildfire. See Appendix B.2 for comment attachments.
Henry Ingorvate	When SDGE removed the wooden 3wire poles and replaced then steel 12 wire poles, they didn't have to go through any approval process since they already had a power line right away. If the CPU grants SDGE permission to add another set of poles for three wires that are 69KVA, what would prevent SDGE from years later to add additional wires. All these wires from 3 to 12 wires increase the EMF, which increased health problems. 69KVA wines do not create EMF. EMF is created by the amount of electrons or current that SDGE passes through the conductor wires. Back in 2002, CPU commissioned three scientists from the Calif. Dept. of Health Services to study possible health problems from exposure to EMF. All three scientists from DHS believe that exposure to EMF can: 1. Increase risk of childhood leukemia; 2. Cause adult brain cancer; 3. Cause Gehrig's disease; 4. Cause miscarriage. The CPU has not basked up the three scientists by supporting more underground power cabling. The State of Rhode Island conducted a	Your preference for underground power lines and concerns regarding aesthetics, human health, and wildfire are acknowledged. Please see Master Responses 4, CEQA Process; 1, Aesthetics; 3, EMF and Operational Noise; and 2, Wildfire. See Appendix B.2 for comment attachments.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Henry Ingorvate (cont.)	study and indicated that at a distance of as little 25 feet, an underground transmission line can reduce EMF by more than 99 percent when compared to overhead lines. When will the CPU help the public of Calif. have the same protection as in the State of Rhode Island. We really need the CPU support to have all transmission lines underground & protect the Calif. people from EMF possible health problems and fire damage that SDGE does not want to be responsible for.	
Tanya Ingorvate	We need an EIR. Without one intelligent decisions can not be made. Disruption during construction to plant and animal life as well as people can have long term affects. Our trails and parks will be impacted. Property values will be impacted. Health of residents can be impacted with power outages and EMFs. Options are to go underground as SDG&E are doing in other local areas and PG&E is doing in Northern California. I employ you to do an EIR. Thank you	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
Tanya Ingorvate	My concern is the affects on our Open Space and the noise levels as well s the EMFs. We need an Environmental Impact Report done in order to significantly understand the the affects on the community. From my research, I believe their is significant negative impact on the direct area and surrounding area. Both people and animal life will be disrupted and affected long term in the future. Large, multi lines will increase fire danger and this area has already been denied fire insurance by many insurance companies. i.e. Triple A of Southern California. An EIR is essential! Underground lines are essential. They are being placed in Rancho Bernardo, Encinitas, and other areas near San Marcos. We deserve the same. Thank you.	Your preference for underground lines, request for an EIR, and concerns regarding open space and noise is acknowledged. Please refer to Section 3.4, Biological Resources and Section 3.13, Noise in the Draft IS/MND.
Michele Isaac	Just having moved here from Northern California, I'm awfully concerned about the impact the power lines will have on my immediate neighborhood. Here's a statement from an article about the California Camp fire. "Fire authorities have officially determined that Pacific Gas and Electric Co. was responsible for last year's deadly Camp Fire in Paradise, California. In a press release earlier today, the California Department of Forestry and Fire Protection (Cal Fire) said that after a very meticulous and thorough investigation, Cal Fire has determined that the Camp Fire was caused by electrical transmission lines owned and operated by Pacific Gas and Electricity (PG&E) located in the Pulga area. How is anyone certain that SD&E is going to professionally attend to this new power lines? Is there a better and less invasive method to provide the necessary resources they need to?	Your preference for underground power lines and your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire; and 4, CEQA Process.
Kim Isbell	Thank you for allowing comments on the proposed power lines in San Marcos. As a resident that will see these lines and be impacted by them, I am requesting an Environmental Impact Report be conducted. I believe it will find significant fire danger risk with evacuation risk. I would like to know the impact on radio frequency emissions to the health of children and adults. I would also like to know the impact of property values and subsequent tax losses. These are just a few of the impacts I foresee. Thank you	Your opposition to, and concerns regarding, the proposed project have been acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues
Kim Isbell	Please complete an EIR on TL6975. I believe there is a significant impact to the area in many ways that should prohibit above ground power lines.	Your request for an EIR and concerns regarding above ground power lines are acknowledged. Please see Master Responses 4, CEQA Process.
Mark Isbell	Hi, can you please conduct an EIR on SDG&E's project. I have concerns around the larger/additional overhead lines including potential increased fire threat, potential health impacts, lower home values, impact to the environment, etc. Could we potentially consider underground utilities to minimize the impacts. Thanks, Mark.	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues. See Appendix B.2 for comment attachments.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Irina Ivanova	Please, please consider requiring underground installation! I understand the need for improved capacity, but even the existing situation is not right. Significant fire risk (pre-, during, and post- construction), potential of downed power lines cutting off access on San Elijo Road, economic hit due to proximity to existing homes, health concerns--unproven as they may be--for several communities, even the cosmetic concerns. Now, instead of fixing all of these, the direction seems to be to make them worse. We may be a small community, but that doesn't mean we should be just trampled on. If SDG&E won't be the leader in doing the right thing, please, please, please, CPUC, you're the public commission, protect the public interest. Set an example. Keep California the state where its people's voices matter over a single entity's financial interests. Put the lines underground. Respectfully, Irina Ivanova	Your preference for underground power lines and concerns regarding aesthetics, wildfire, and human health are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; and Master Response 3, EMF and Operational Noise.
Richard Iverson	With all the negative impacts of this project that include the terrible aesthetics, the fire danger and lawsuits because of fires caused by power lines and the highly flammable natural habitat that these lines go through, why would you not in the year 2019 bury these lines? We do not want these lines to be part of our view, nor disturb the beautiful canyon in front of our house.	Your preference for underground power lines and concerns regarding aesthetics and wildfire are acknowledged. Please see Master Responses 1, Aesthetics, 2, Wildfire, and 4, CEQA Process.
Jennifer Ivy	Extremely concerned for our community's safety and well being. Requesting an EIR report.	Your concerns regarding the proposed project and your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Robert And Lisa Izenberg	May 29, 2019 California Public Utilities Commission Comment line Dear Sirs: I am writing to add our voices to the chorus of homeowners opposed to the SDG&E plan to install new 100 ft power poles in the San Elijo Hills area, Project TL 6975. We are very concerned with the overhead placement of electrical transformers, considering the recent court finding that PG&E was legally responsible for the Camp fire due to their negligence with their overhead transmission wires. In fact, PG&E was forced to seek bankruptcy protection over this finding. The fact that these new poles will be placed in protected open space, adjacent to established communities which have been evacuated due to fire twice in the past 10 years is foolish, and not a sound plan. We ask that you conduct an EIR so a thorough analysis of viable alternatives can be completed before approving SDG&E's proposed project. It probably would be more cost effective in the long run to place these power lines below ground, if they are even necessary in this area. Placing the lines underground would not impact the pristine beauty of the open space, negatively impact the wildlife and birds of prey nesting in the area, and mitigate the loss of property value overhead lines would cause. My wife and I have lived in San Elijo Hills since 2003 and we no longer are able to walk in the area with the existing steel poles. Prior to 2010 she was able to walk in the area of the wooden poles, but since the metal poles were installed, she can feel painful shocks in her reconstructed back (rods and wires T1-T10) from the wires. Her service dog has panic attacks when he is near the poles, presumably due to the sound emitted, again endangering my wife causing her to fall on repeated occasions. To get away from the poles he pulled her through a fence and down into the ravine causing injury, a 911 call and an ER visit. Once again, we are OPPOSED to the placement of the new set of steel poles and would strongly urge you to consider other options. Sincerely, Robert and Lisa Izenberg 1634 Windemere Drive San Marcos, CA 92078 Promontory Ridge Community-San Elijo Hills	Your preference for underground power lines and your opposition to, and concerns regarding, the proposed project have been acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues. For all other concerns regarding wildlife/trails refer to Section 3.4, Biological Resources in the Draft IS/MND.
Ben Jaccarino	I believe that an EIR should be conducted. There is far too much at risk to NOT conduct one. And finally, SDGE should conduct this because they (supposedly) have nothing to fear. As we've seen in other parts of California (PGE with the Camp Fire), allowing the electric companies free reign can have detrimental (and even life threatening) consequences.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Danielle Jackola	November 8, 2018 is a day I will never forget. I was sitting in a small salon in Carlsbad, CA getting my hair done and I heard a fellow patron on the phone during a devastating call. I still get chills thinking about it. She took a call and then her friendly "hi there!" changed to gasps and then sobs. It was such an unusual situation that everyone froze and stared at her wondering what was going on. She hung up the phone and shared with everyone that her best friend had called to say goodbye. This woman grew up in a small town called Paradise, CA and her friend called to explain that the town was engulfed in flames, she and her family were fleeing in their car and didn't think they would make it out. They had tried one exit route, which was blocked by fire, so they turned around and were stuck trying a different path of evacuation. There were cars everywhere in the same situation, animals were running wild trying to survive, and flames were surrounding them all. Through racked sobs she shared this story and said, "my God, my best friend is about to die." She then broke down and shared that her entire family still lived in Paradise and she hadn't spoken with them. She didn't know if they were dead or alive. Six months later I can still hear the grief and desperation in her voice. I cannot fathom receiving that phone call. I will never know the outcome, but I fear the worst. I have owned my home in the San Marcos community of San Elijo Hills for 17 years. This is a beautiful community full of families and we are in a high fire risk area. Since we have owned our home, we have experienced several area fires and evacuations. During the last fire in May of 2014 I was home with my two children and our family dog while my husband was deployed. As the flames were coming over the hills of our community from Twin Oaks Rd. we had two options for evacuation, Elfin Forest—which is an extreme fire risk area, and San Elijo Rd. The latter was the best option for thousands of residents fleeing in cars on small, congested streets. It took hours to get the residents out of our community. We were evacuated for several days and I had no idea if our house was still standing. I had countless phone calls with our insurance company during that time, and explained that I didn't know if our house was spared but I had seen news segments with a plane dropping chemicals on the community to combat the fire. I find it profoundly irresponsible that SDG&E could be allowed to add additional above ground lines, increasing our fire risk in a high fire risk area that has many residents packed into a community with limited exit routes. As PG&E is facing a class action lawsuit for the Camp Fire in Paradise, CA I don't understand how these additional above ground lines could be considered when there are alternatives. I do not want to be the one calling my loved ones to say goodbye as I am trying to flee a fire. Please, please, please think of the residents impacted by this project. I implore you to require these lines be placed underground for the safety of everyone here.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Response 4, CEQA Process and 2, Wildfire.
George Jackson	Increase in the number and volume of wires in our front yard would be significant change to our view and have a negative impact to our entire neighborhood. Using the trails and the park often, it is extremely sad that these electrical poles ruin such amazing views of the valleys and ocean, there has to be a better alternative than adding more poles and wires. Why can't all these wires be put underground? Please reconsider putting additional poles and wires in our neighborhood, thanks for your consideration!	Your concerns regarding aesthetics are acknowledged. Please see Master Response 1, Aesthetics.
Catherine Jacobs	I am opposed to this project. It may not only put our physical health in jeopardy. It will make our community, already vulnerable to wildfires, at even greater risk of a fire disaster. The power lines will also negatively impact our financial health by reducing our property values. Put these underground. Don't harm our community on your quest for profit.	Your opposition to, and concerns regarding, the proposed project have been acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues
Cathreine Jacobs	We at high risk of wildfire. The power lines will increase this risk. We may not be able to get out if a fire sweeps through here again. Please don't put our lives and homes at risk.	Your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
David Jacobs	I oppose the new power lines being put up above ground. They would be a risk to my children's health and safety and all the children in the area. The largest and deadliest fire in CA history was caused by downed power lines. Put them under ground.	Your preference for underground power lines and concerns regarding wildfire and human health are acknowledged. Please see Master Responses 2, Wildfire, and Master Response 3, EMF and Operational Noise.
Beverly Jacoby	Since my last comment I have had my house appraised for tax purposes. The appraised value has declined $40K due to the location of the existing transmission pole directly behind my house. If the SDG&E proposal goes through, my house will be virtually worthless, as no one would buy a house with TWO power lines within 100 feet of the back door.	Your concerns regarding property value are acknowledged. Please see Master Response 4, CEQA Process.
Beverly Jacoby	Please reject this project of SDG&E. The proposed second, parallel transmission line is in a dangerous fire zone. Residents here have been evacuated several times due to wildfires in the surrounding areas. There have been large transmission poles and power lines in this location for ten years now. This proposal would DOUBLE the fire danger to thousands of homes in the San Marcos/San Elijo Hills/Rancho Dorado neighborhoods. There are alternative routes SDG&E has failed to consider which would not endanger thousands of homes. Why hasn't there been an Environmental Impact study done on this proposal?	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process
Beverly Jacoby	I am a homeowner and resident in the area which would be adversely impacted by this SDG&E project. I have lived at my current address since 2002. When I moved here there were no nearby above ground power lines visible from my home. Since that time the San Diego Gas and Electric company installed a very large power transmission pole less than 100 feet from the rear of my property. (See photo attachment). Now with the above referenced project, SDG&E would install another above ground power line parallel to the existing one even closer to my home. I am objecting to this proposal for more than aesthetic reasons. One, the area in San Marcos where I live is in a high fire danger zone. In the 17 years my family and I have lived here we have been evacuated several times due to brushfires which ultimately consumed nearby houses. California exists in a year round fire season. The wildfires that destroyed entire communities this past November will come again. Above ground power lines have been cited by fire authorities as contributing to the fires up and down the state. If, as some will argue, burying power lines would be too costly for the utility companies, consider the costs of lives and property every fire season. This SDG&E project will effectively double the fire risk in our neighborhoods. I believe there are other transmission routes available in this area which do not abut existing neighborhoods, and that SDG&E has an obligation to seriously consider them. Secondly, on a personal note, I have had occasion to have my home appraised as of the June 2018 date of my husband's death. The appraisal deemed the existing power transmission pole directly behind my house to lessen the value by at lest $40,000. What another, adjacent power line would do to value ofmy home and that ofmy neighbors is unknown but sure to be extremely negative.	Your concerns regarding wildfire, alternatives, and property value are acknowledged. Please see Master Responses 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.
Reza Jalilizeinali	To Whom It May Concern, Please conduct an Environmental Impact Report (EIR). Myself and my family are concern about the Electro-Magnetic Field (EMF) impact on our health. Besides health concerns, this will impact the properties value in our community. It is important we find an alternative way and do not have these power lines goes through our community.	Your concerns regarding human health are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 3, EMF and Operational Noise; and 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Eric Jamois	Please conduct an EIR on SDG&E's project. It seems EIRs are often conducted for much smaller projects so this is highly justified. This project will degrade the natural habitat with just more construction. Highly deleterious to our environment. Just like we did over 6 years ago, people need to go solar so that a significant amount of power is generated in-situ and less demand is put on the grid. On top of that, they will save money and the environment will be spared. Eric Jamois	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process
Waldtraut Jedamski	I am a physician who lives near the power lines in the Rancho Dorado Estates on Sea Island Place in San Marcos. I bought my house prior to the present lines having been put in and find it alarming that this community is asked to have the burden of even more intrusive lines that have not been shown to be safe for the community and environment. It will have a huge negative impact on my family's life. Please conduct an EIR on SDG&E's project. This is vitally important before they proceed with this.	Your preference for underground power lines or another alternative is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.
Daniel Jenkins	Please require SDGE to conduct a full EIR on the project.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Heather Jenkins	Please require SDGE to conduct a full EIR on this project.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Sharmin Jesuthasan	Need a copy of the EIR	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Meng Jiang	Dear CPUC commissioners, We are deeply concerned about the safety of our community and the existing and new threat caused by the powerlines. CalFire investigations have concluded that the Camp fire in 2018, the deadliest fire in history, was caused by PG&E's electric powerlines[1]. Long before the conclusion was made, PG&E declared bankruptcy protection last year. It is clear now that not only the town is destroyed, but there will have no money to rebuild. The whole community is completely ruined. Before the Camp fire, CalFire had concluded that 12 of the Northern California wildfires in 2017 were also caused by PG&E powerlines[2]. How many of such tragedies need to happen before people realize that the safest place for powerlines is under the ground?	Your preference for underground power lines and your concerns regarding wildfire and insurance rates are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.
Jin	Dear CPUC committee members, Please conduct Environmental Impact Report for SDGE TL6975 69kV Project. Our San Elijo Community residents have serious concerns about SDGE above ground powerline proposal because 1. Significant fire risk. Our community is located on the Hills, which are fully covered with the bushes and the trees. It has about 3000 houses, two elementary schools, one middle school and one high school but only one exit route. Our community has been considered as a high fire risk zone even without these powerlines. Actually, we have been through fire threat in the past and also power blackout by SDGE during hot and windy days. Due to global warming, Santa Ana winds became stronger in the past few years and for sure it will last longer and occur more frequent year after year. Catastrophic camp fire caused by PG&E electrical fire transmission last year is a warning call. Neither CPUC or SDGE or we want this happen again. It is really about people lives and their homes!!!! 2. Negative impact on property values 3. Significantly increased homeowner insurance cost. Some insurance companies have already declined to insure the neighborhood homes due to these powerline poles. 4. EMF, more powerlines more radiation emission which cause health hazard to people. 5. Community fear and anxiety by seeing these giant powerline poles over their heads every day. Why not consider alternative underground powerlines proposal which solve all above issues and put everybody at ease, in the long run it is worth every penny. Best regards, Jin	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, human health, insurance, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Mark Johnson	Please prepare an EIR so viable alternatives can be thoroughly considered.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Rebecca Jones	My request is that consideration is given to a full environmental impact report. Last night the San Marcos City Council took formal action to submit comments to bolster this request for your requiring a full EIR. IN 2014 my home was in the path of the Cocos fire, though I don't live in the path of this project, I'm concerned with them being in a high fire zone. I don't agree with a safety strategy of shutting down power lines during high wind events, these lines should be installed underground, it doesn't make sense to me to allow new lines in a high fire hazard zone. With all of the data that we have, we know that undergrounding, though pricey, is a safe alternative to above ground, older technology.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process.
Marcy Jubach	I request that a EIR report be done for our community	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Nancy Kawano	I object to the additional above ground power lines for safety reasons. I am disabled and extremely concerned about my safety should there be a wildfire caused or exacerbated by these power lines. There is only one road out of San Elijo, and last time we were evacuated due to a fire, it took several hours to get out of the community. I am also concerned about the decrease in the value of my home and potential increase in homeowners insurance. Please do not allow this project to move forward.	Your preference for underground power lines and concerns regarding wildfire, evacuation routes, insurance, and property values are acknowledged. Please see Master Responses 2, Wildfire; and 5, Non-CEQA Issues.
Katie Jo Keeling	Please conduct an EIR on SDG&E's project. I am very concerned about the impact to my neighborhood, children's health, and fire safety.	Your concerns regarding wildfire and human health are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process
Tamara Kelley	Must do an Environmental Impact Assessment… Don't build.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Barry Kent	Please have SDGE conduct an Environmental Impact Report (EIR) on proposed additional power line poles (TL6975 69kV project).	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Christine Kerschbaum	As a resident of the community with many many children, I am highly concerned about the existing power line and very worried about adding another. Children have much smaller organisms and the electromagnetic field does influence their growth, health and overall well being.	Your concerns regarding human health are acknowledged. Please see Master Responses 3, EMF and Operational Noise.
Christine Kerschbaum	I am very concerned about the location of the power line going through all the dry vegetation in the hills. See the Paradise fire was caused by power line and we only had the 2014 fire where we were all evacuated. We don't want to become another paradise. Let's learn from these mistakes. Wouldn't a subterranean power line be much safer? Avoid the risk of elimination SEH due to fire where every house is a $1M? Could that justify a subterranean power line?	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process.
Scott Kevan	I don't understand how this project can move forward without a thorough Environmental Impact Report. I am most concerned about the increased risk of wildfires due to the above ground power lines. Above ground lines also me intermittent power outages during periods of high wind with is a danger to our senior population.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
Katherine Kidder	More power lines in our area is not the answer. Our area is prone to wildfires and these lines will only cause more. Residents are trapped when fires rip through here due to poor road planning… are you really willing to increase fire chances, thus increasing the risk for casualties? Imagine the blowback that will bring!	Your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Maureen Kim	As a resident of San Elijo Hills and a mother of two young boys, I am strongly opposed to the power lines that are being discussed. The wildfire danger is already EXTREMELY high and the power lines would only add to this. Please respect and honor our concerns but not approving this unnecessary project. I fully believe there is an alternative way to get the necessary power to the developing community's without putting ours in danger.	Your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire
Janice King	I want an EIR on TL6975	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Ted King	Please do not proceed further until and EIR is undertaken and other alternatives are considered. While this may be SDG&E's least cost method of achieving its goal, it is NOT the best alternative for our community. Thank you.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process
Michael Kircher	I want an EIR	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Yelena Klinova	I am against this project because it disturbs the aesthetics and worry about the electromagnetic field impact on my kids.	Your concerns regarding aesthetics and EMF are acknowledged. Please see Master Responses 1, Aesthetics and 3, EMF and Operational Noise.
Janet Klitzner	I'd like to see an Environmental Impact Report.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Ed And Mary Klosterman	My husband and I would like to voice our concern and opposition to the SDG&E San Marcos to Escondido Tie Line 6975 69kV Project. Our neighborhood will be impacted by this project. We left a home in East Lake, California years ago because of similar power lines. The buzzing sound from these power lines were 24/7. We did not sleep well and we believe the high emf's are hazardous to our health, especially children's health. These power lines will negatively effect the home sales in our neighborhood. Families with children will have the same health concerns, and would not be interested in buying homes near these power lines. Please do not allow these power lines to be built near our homes. We live on Sequoia St. in San Marcos, Ca.	Your opposition to the proposed project and concerns regarding noise, human health, and property values are acknowledged. Please see Master Reponses 3, EMF and Operational Noise and 5, Non-CEQA Issues.
Stacey Knapek	I would like an EIR (Environmental Impact Report).	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Linda Koch	The power lines strung across towers are unsightly and dangerous. We know that power lines cause fires and fires burn homes in urban areas. Lives and property are destroyed in the process. The Commission's legal responsibility is to safeguard the community. For our safety and quality of life, these power lines should be buried as they are in Carlsbad and other areas with population density, housing type and vegetation similar to that in San Marcos and other communities impacted by this decision. Any intelligent person can see that burying the lines is safer, less intrusive and decrease the negative impact on property values than the towers that now exist. Do the right thing! Bury the power lines!	Your preference for underground power lines and your opposition to, and concerns regarding, the proposed project have been acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues
Robert Koch	This is a major increase in the presence of high tension lines in the north San Diego county area. Because human, wildlife, and vegetation have changed drastically during the period since the present lines were originally installed, the last EIR is no longer relevant to the present, near-term, and long-term situation. Especially relevant is the devastating outcome of the Paradise wildfire caused by issues with power lines. There the mitigation's being implemented is underground installation. North county has many conditions that resemble those Paradise and these must be considered in a new EIR. It would be grossly irresponsible of the Commission to make a decision on this issue without having these new circumstances taken under consideration. Safety, livelihood, and quality of life for the residence hang in the balance.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process
Melisa Korry	This is not safe for our homes or families. I live close to the existing lines and I couldn't even Imagine living near bigger and more powerful lines. We want real information on the danger of these lines. They cannot sacrifice our neighborhood for their greed! We must stop this!	Your opposition to the proposed project and preference for underground power lines or another alternative is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Bonnie Kraemer	I want an Environment Impact Report on TL 6975	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Michael Krehan	I live in one of the homes closest to the power lines in all of Rancho Dorado. The existing structures are already a nuisance - my home is facing west, and the view overlooking the canyon and sunsets is severely impacted by the towers. However, I have grave concerns over TL6975. The viewshed would be impaired even further. The trails that my kids often bike on would see additional obstacles and hazards. This region is already officially designated as a very high fire hazard zone by the county, and the construction work would risk catastrophic fires, as caused by SDG&E in San Diego in the past. I'm further concerned that the new lines would impact the appeal and resale value of the homes. Considering that there are alternatives that SDG&E has chosen not to pursue, I would strongly urge the CPUC to at least conduct an EIR, and look into the other possibilities that have been brought up. I would even prefer a rate hike to fund underground lines over seeing the construction of the new tie line.	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.
Andrea Kriegler	I respectfully request that the proposed power lines be placed underground for safety issues. In this modern time, there shouldn't be any reason why power lines need to be above ground. This area has a history of wildfires and it's concerning to me that more above ground power lines are proposed. For safety's sake, please spend the extra money to place them underground so that there aren't issues in the future. Thank you.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
Stephanie Krueger	SDG&E must be required to prepare an Environmental Impact Report (EIR) before the dangerous power line is approved.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Mary Kyne	This proposed project will affect so many people and have an impact on many aspects of life. Please prepare an EIR so viable alternatives can be thoroughly considered.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Jean-Pierre Labarrie	This is for Project TL6975 69kV. Your link on your website for this is not working to “Leave Comments” online. Please fix. I would like to comment that I Oppose this project, as a Homeowner, in my community. I prefer they drill underground.	Your opposition to the proposed project, and preference for underground power lines are acknowledged.
Jp Labarrie	I disagree with this project. Go underground!	Your preference for underground power lines or another alternative is acknowledged. Please see Master Response 4, CEQA Process.
Robert Ladue	We really do not need more poles when SDGE can easily put them underground like they did in Escondido. We do not live in a society where we need to try to save a little money and take the easy route, when we have a much better option available. Studies show putting the wires underground is a much safer option as well.	Your preference for underground power lines is acknowledged. Please see Master Response 4, CEQA Process.
Carolyn Lagroux	I have lived at 1206 white sands drive since December 2000.the view was magnificent with beautiful sunsets on the ocean.this changed in2010.the wooden pole with 3 wires couldbarely beseen.i came home from errands one day to a monster metal pole right in front of my family room and kitchen window.then the wires arrived and have annoyingly buzzed ever since God knows what that does to our health.my husband 4 years later developed leukemia known to be related to being too close to electric fields for long periods of time,he worked from home and had maximum exposure.last year he died.now you have the gall to say you areputting double the poles and wires even closer to my house.not only is this not what I bought but I am now without my husband and with a huge drop in property valueand scareing my daughter who lives at home into fearing that she could loose her mother also.we also know for sure thst one fire resulted from these wires,thankfully the firestation was on top of it.so now we have more to fear for our lives not to mention the environment.you should spend 24 hours here and decide how you would feel if this was happening to your familylives and quality of life far outweighs the extra cost of putting these wires underground. sincerely Carolyn lagroux. 1206 white sands drive, san marcos 92078	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, human health, operational noise, and property value are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Carolyn Lagroux	I live directly in front of the electricity. Not only is it 75 feet away, unsightly, and will definitely reduce the value of my house more than the first ones. But I am gravely concerned about the health of my family and the fire hazard.	Your concerns regarding aesthetics, property value, human health, and wildfire are acknowledged. Please see Master Responses 1, Aesthetics; 5, Non-CEQA Issues; 3, EMF and Operational Noise; and 2, Wildfire.
Chantelle Lagroux	The electricity is 75ft from my house. I don't want to die of cancer. I am also concerned of the fire hazard.	Your concern for human health and wildfire are acknowledged. Please see Master Responses 3, EMF and Operational Noise and 2, Wildfire.
J. Lambert	I live in a neighborhood that is DEEPLY affected by these proposed new wire lines! You should know that these lines cross near the kids play area near Simmons Park in west San Marcos. Thee proposed wires GREATLY affects property values. A RE broker tells me it lowers our home value by $65k. It is also dangerous how close these new wires are to many families in the area. For the SD Gas & Electric to tell us that it has little affect is a lie. IF they put underground wires in instead the distance would be a more direct and shorter distance from teh map I saw at the meeting. Not to mention the fire danger! By SDG&E spending more money it would actually save them money in the long run. There will be countless lawsuits if there is a fire / any fire (like ther was previously). This even dispels the cost difference (between above ground vs. underground) that will be at risk for them considering the risk that with these INTENSE wires there will be added electricity exposure to MANY citizens of San Marcos.Why does SDG&E do underground wires in Carlsbad, and Poway and not in San Marcos? A stern vote AGAINST these new wires from a tax paying and voting citizen of San Marcos!	Your opposition to the proposed project, preference for underground power lines, and concerns regarding human health, property values, and wildfire are acknowledged. Please see Master Responses 4, CEQA Process; 3, EMF and Operational Noise; 5, Non-CEQA Issues; and 2, Wildfire.
Melissa Lance	Please conduct an EIR on SDG&E's project!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Phyllis Landi	Please do an EIR. Our Rancho Dorado neighborhood is already negatively impacted by the current power line.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Richard Landi	I am very concerned about this project. We know fires in northern CA were caused by overhead lines. To add more overhead lines is unconscionable. Please have SDG&E do an EIR (environmental impact report). I am requesting this so that SDG&E will look at alternatives such as underground and will consider the wild fire risk. Approximately two or three years ago we had fires in Carlsbad which were very serious. I could see the smoke and flames from my back yard. We don't want another incident like that. I believe risk to life and the cost of replacing homes should trump any potential increase in cost to run wires underground. In addition underground should eliminate risk associated with electromagnetic waves from above.	Your preference for underground power lines and concerns regarding wildfire and human health are acknowledged. Please see Master Responses 2, Wildfire, and Master Response 3, EMF and Operational Noise
Christine Lang	I am a resident of San Marcos, specifically San Elijo Hills. I request an Environmental Impact Report be completed on TL6975.	Your request for an EIR is acknowledged.
Jamie Lang	I would like an EIR for the proposed powerlines that will run through San Elijo Hills. Thank you.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Scott Lang	I am a resident of San Elijo Hills in San Marcos and I want an EIR on TL6975.	Your request for an EIR is acknowledged.
Lauren Lanni	I am requesting an environmental safety report.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Michael Lapkin	I am writing to submit my objection to the proposed changes in the TL6975 project, specifically, 1) the new poles erected on Segment 2 will be 50' closer to my house and 90' to 105' high, and will impact my view and property value. 2) the new poles erected on Segment 3 will also be taller (113.3') and will affect the aesthetic value of the San Elijo Hills neighborhood. 3) the increased lines on both segment 2 and 3 will double our exposure to fire hazard, in what has already been determined to be a HIGH RISK FIRE area. 4) our neighborhood will be surrounded on two sides by double the amount of EMF. 5) there does not appear to be any consideration for the burying of our local transmission lines, for all of the reasons stated above. 6) the addition of capacity requirements for new areas, and the correction of current violations should NOT create impact to our neighborhood. These are the responsibility of SDG&E. If there are corrections or new lines required, they should be addressed with minimal impact to our neighborhood. Please include me on future correspondence.	Your opposition to the proposed project and concerns regarding aesthetics, property values, wildfire, human health, and alternatives are acknowledged. Please see Master Responses 4, CEQA Process; 1, Aesthetics; 5, Non-CEQA Issues; 2, Wildfire; and 3, EMF and Operational Noise.
Do Laraway	An EIR is absolutely necessary before any decisions should be made concerning adding another run of power lines through San Elijo Hills and Rancho Dorado. Not only do the existing power lines pose a fire hazard but the proposed additional lines would increase the risk SIGNIFICANTLY. More lines mean more possibility of downed lines. When we moved to Rancho Dorado in 2001 there were NO steel poles. The huge steel poles and lines are eyesores to existing homeowners and change the feeling of the community from rural open space to cluttered industrial, they also present an impediment when attempting to sell a home here. The property values are impacted by the existence and visibility of these poles and lines as the unobstructed views are no longer present. The walking trails buzz with noise from the lines so the trails are not enjoyable to use. These same trails were one of the selling points that the original builder presented when we looked at this community. The poles also infringe on the native landscape which homeowners are prohibited from touching yet SDGE installed HUGE poles in the areas. The existing poles has SIGNIFICANTLY impacted this community and the proposed additions would further detrimentally impact this community.	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, human health, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.
Marc Larochelle	Hello, We are the original owners here in Rancho Dorado where our backyard overlooks the canyon facing North. When we first moved in (in 2002) and for several years after, we enjoyed the scenic views comforted with the fact that we knew there would be no additional houses to built behind us. Little did we know that years later in 2010, GIANT power lines would be constructed forever destroying that view. I remember very specifically a neighbor coming over shortly after these power lines were built saying. "It looks like our neighborhood is now a scene from a Godzilla movie." That statement really summed it up for me because these power lines really do take away from the neighborhood we once had. In addition, I've heard first-hand from neighbors who have recently sold their house that many people will not purchase a house near or around power lines and it is impacting housing values as a result. If there's anything that can be done to avoid putting up even MORE power lines or better yet, remove/move the ones already in place, that would be a worthy goal and one the current homeowners in this neighborhood would greatly appreciate and benefit from. Included here is a before and after picture set from our backyard. Thank you for your consideration, Marc Larochelle Please redact my personal contact information from my comment prior to publication.	Your preference for underground power lines and concerns regarding aesthetics and property values are acknowledged. Please see Master Responses 1, Aesthetics; and 5, Non-CEQA Issues. See Appendix B.2 for comment attachments.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Violet Le	Why don't we put power lines underground? Underground power lines don't sway in the wind, don't cause wildfires, and seem to be an ideal way to prevent wildfires in a place like SEH. True, they are expensive to build esp. the digging part but consider they have smaller voltage drops, low chances of developing faults and have low maintenance costs and significantly reduce the chances of wildfire in such a population dense area, don't you think it totally worth the investment?	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
Greg Le Beau	I've lived in Rancho Dorado since 2001 and have loved living in this development. At that time, the powerlines going across Coast Avenue had wooden poles, and while they were noticeable, they weren't too crazy. When the wooden poles were replaced by the larger metal poles, they became much more noticeable. Even friends and family made comments when driving by -- they would ask if those poles had always been there. I'm very worried that if this project goes through and SDG&E expands the number poles and lines, it will further (negatively) impact the aesthetics of our neighborhood, as well as property values. Subsequently, I am requesting on EIR on TL6975.	Your concerns regarding aesthetics and property values are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 1, Aesthetics; 4, CEQA Process; and 5, Non-CEQA Issues.
Greg Le Beau	I want to add that as part of the request to conduct an EIR, I would like to see other alternatives explored -- especially undergrounding, to reduce the impact on aesthetics and property values, as well as the impact on the environment -- before approving SDG&E's project.	Your preference for underground power lines and your concerns regarding aesthetics, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 4, CEQA Process; and 5, Non-CEQA Issues.
Jen Le Beau	I am writing to let you know that I am vehemently against this project as it will greatly negatively impact the Aesthetic of our community. I have lived here since before 2010 and the cumulative impact is outrageous as this is the second major increase in the size and number of transmission lines since 2009.	Your concern regarding aesthetics is acknowledged. Please see Master Response 1, Aesthetics.
Jen Le Beau	I forgot to mention that the project would surely negatively affect property values, increase the dangers associated with increased Wildfires of recent this causing Increasing the cost of Homeowners insurance. Lastly, I have very strong concerns with the Biological impacts, Noise, etc.	Your concern for property values, wildfire, insurance, noise, and biological resources are acknowledged. Please see Master Responses 5, Non-CEQA Issues; 2, Wildfire; 3, EMF and Operational Noise. For all other concerns refer to section 3.4, Biological Resources and 3.13, Noise of the Draft IS/MND.
Leslie Lebel	Please stop the SDGE power line TL6975 69kv project from San Marcos to Escondido. This power line will have many negative effects for the community including: aesthetics, decrease in property values, wildfire hazard and noise. Please put them underground instead.	Your preference for underground power lines and your opposition to, and concerns regarding, the proposed project have been acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues
Cheyenne Lee	Dear CPUC, We live in Carlsbad but belong to San Marcos School District. My children go to San Elijo Middle School everyday. We take San Elijo Road getting into the center of San Elijo every day to drop off and pick up my children in SEMS. The road is now more and more crowded and jammed during the drop off/pick up time. I cannot imagine how the school and kids get evacuated fast enough if there is any fire hazard. That makes me worry about my children's safety. San Elijo Hill has become the most dangerous fire zone since 2007 wildfire and 2014 Coco fire. Massive power outage for every dry and windy season due to the power pools and surrounding bushes. I am asking CPUC to consider the safety and environment protection of our homes and school. Please conduct an EIR on SDG&E's TL6975 project. Thank you.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire
John Lee	I believe an EIR is in order and so request.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Katryna Leisz	No new above ground power lines in San Elijo!	Your preference for underground power lines is acknowledged. Please see Master Response 4, CEQA Process
Joseph Lena	I live in Sagewood in San Elijo Hills. You should conduct an EIR before anything happens on this project.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Michael Lena	I demand that an Environmental Impact Report be performed on this project. My home faces the existing power lines. I am in direct opposition to the installation of further power lines which would negatively affect my home's value (we paid a $50,000 lot premium for the view of our home). Additionally, evacuations from our neighborhood due to fires have been difficult even though we left earlier than the majority of our neighbors. Any fire started by these power lines would cause a disaster from which people would not have time to escape. I believe there are many factors which have not been explored sufficiently prior to any approval of this project. Although going underground may cost more in the beginning, in the long run, it will be less costly if we experience a fire in magnitude even close to that suffered by the residents of Paradise CA. I demand that an EIR be done prior to any further progress.	Your preference for underground power lines and your concerns regarding wildfire, evacuation routes, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.
Mikey Lena	I have lived in San Elijo Hills since I was two. I have played a lot on the trails and hiked with my dog. I am a sustainability student at SDSU now and I'm worried that new power lines will affect the wildlife, how the trails look, the possibility of cancer and damage to homes and people if there is an earthquake or fire. The statements of SDGE regarding how they will eliminate these problems make no sense. An Environmental Impact Report is necessary before anything goes further.	Your concerns regarding aesthetics, wildfire, and human health are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process.
Tiffany Lena	I live on Sagewood Way and my home faces the existing power lines and thus, the area where additional power lines are proposed. The existing power lines were put up surreptiously by SDGE. There was no notice except on the trails and the signs were not in plain sight. Now SDGE is trying to put MORE power lines in. The "mitigation" plans SDGE has proposed are not viable or rational. I demand that an EIR be performed before anything further happens on this project. Your Mission Statement includes protecting the citizens of California. Protect us. Tiffany Lena The Law Office of Tiffany Lena	Your preference for underground power lines or another alternative is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.
Chieh-Jou Leslie	high risk of fire	Your concerns regarding wildfire is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 2, Wildfire, and 4, CEQA Process
Dylan Leslie	The power lines will create more risk of fires and are dangerous to the wildlife.	Your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire and Section 3.4, Biological Resources in the Draft IS/MND.
Heather Leslie	This will make property values plummet. Bury the power lines	Your preference for underground power lines and your concern regarding property values are acknowledged. Please Master Responses 4, CEQA Process and 5, Non-CEQA Issues.
Linda Leslie	Please think about putting power lines underground. They are dangerous concerning a very high fire danger. They are also unsightly and a huge danger to wildlife in the area. They also make our property values go down. Thank you!	Your preference for underground power lines and your concerns regarding wildfire and property values are acknowledged. Your request for an EIR is also acknowledged. Please Master Responses 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Tim Leslie	I am concerned about the fire danger with these power lines. A plan to bury the proposed new lines needs to be addressed.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire
Mary Lester	The Public Draft Initial Study/Mitigated Negative Declaration of this proposed project is completely inadequate. It down played or did not address at all the significant, negative impacts on residents living under or near Segment 2 where numerous 100+ foot towers would be erected - namely, health, extreme fire danger, property value decline, and visual pollution! An in depth Environmental Impact Report must be required so the public can see the magnitude of the potential, significant negative impacts.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Adriene Leung	I want the power lines to be placed underground because of wildfire concernes, house value and health risks.	Your preference for underground power lines and your concerns regarding wildfire, human health, and property value are acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.
Luis Leung	I'm for underground power lines because they are unlikely to start brush fires, they are also potentially less hazardous to humans and animals and they do not affect home values adversely.	Your preference for underground power lines and concerns regarding wildfire and human health are acknowledged. Please see Master Responses 2, Wildfire, and Master Response 3, EMF and Operational Noise
James Levin	Please conduct an EIR on this project. It's a reasonable request being made by the residents that will be affected by this project.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Cassidy Lewis	I would like to see an environmental impact report. We have lived in our home for 10 years and this proposed project is going to risk our local environment, our property values, and our families health.	Your concerns regarding the proposed project have been acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.
Chelsea Lewis	I have lived in San Elijo Hills for 10 years and request that you prepare an EIR so that alternatives such as undergrounding can be considered. This would significantly reduce the effects on the environment and is worth the additional cost to not increase our wildfire risk. In addition, undergrounding would not destroy the aesthetics of our beautiful community resulting in millions of dollars lost in property values.	Your concerns regarding aesthetics, wildfire, and property values are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.
Dianne Lewis	The community of San Elijo Hills and deserves full consideration before installation of more powerlines. A comprehensive EIR is essential with factors such as 3 large schools, a high fire risk area, and limited evacuate routes to be considered.	Your concerns regarding wildfire is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 2, Wildfire; 3, and 4, CEQA Process.
Katie L'heureux	No power lines. They put out so many EMF's which are unhealthy. They are an eye sore which lowers home values and most important the fire danger that it could cause is something to be concerned about.	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, human health, and property value are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Michelle And Hong-Shen Li	Please conduct an EIR on SDG&E's project.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Bin Liang	Adding more power polls not only create fire risk, but also health risk. It will be hard to find a insrance Company to insure our house, decrease our house value. Ultimately, it will affect overall City of San Marcos image, push away more mid class moving out of city.	Please see Master Responses 2, Wildfire and 5, Non-CEQA issues.
Dennis Lint	SDG&E has stated that burying the Power Lines vs. erecting towers is cost prohibitive. They also admitted that underground power lines were the only option which eliminates the fire hazard. I believe that their cost analysis is inaccurate for the following reasons: 1. Prevention costs are the most effective use of project costs. When considering the lifetime financial impact of a project identifying and associating these costs to a project is called "the cost of quality ". This is a widely used methodology currently used in today's industry. SDG&E's proposal to mitigate the fire threat is identified as maintaining a non-sustainable and ineffective process limiting potential fire hazards through the process of daily inspections and vegetation growth control. This will not work. The overhead wires will be there indefinitely, never relieving SDG&E from this costly burden. In engineering terms this is referred to as fixating on the symptom while not addressing the "root cause" (removing the overhead wires from the proximity of the vegetation). 2. The costs associated with the increased insurance costs now being brought to light by PG&E's financial liability for the damages caused by the Camp Fire. These much higher costs should be used in SDG&E's "Cost of Quality" analysis for this project. 3. Elimination of any health related lawsuit costs brought against SDG&E for EMF proximity to residents. Regardless of if the claims are real or not, costs will be incurred by SDG&E to fight these claims. 4. Other costs which will be incurred, and passed through to customers, (a) additional burden to the California Firefighters, (b) negative property value impact, and (c) decrease in property tax revenues due to suppressed property values. When all of the above points are correctly considered, the "win-win" scenario is underground power lines. SDG&E will win by implementing the most cost effective (Life of Project) solution, reduced risk to shareholders (liability issues), and by treating their customers in a sound, fair, and ethical manner.	Your request for undergrounding and concerns regarding wildfire, EMF, and property value are acknowledged. Please see Master Response 4, CEQA Process; 3, EMF and Operational Noise; 5, Non-CEQA Issues; and 2, Wildfire.
Pamela Lint	I want an EIR on TL6975". Please do not proceed without this report.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
James Linton	Please care for the lives of our community and have an independent review selected by the City of San Marcos and not SDG&E for environmental, fire safety and health safety prior to making any decisions. We Trust you to do the right thing, James	Your concerns regarding human health and wildfire are acknowledged. Please see Master Responses 2, Wildfire; and 3, EMF and Operational Noise.
Rubing Liu	Please conduct an EIR review.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Yujun Liu	There will be noticeable humming noise coming from the power lines which is not acceptable for residents living near the power lines. The power lines will destroy the aesthetics of the neighborhood and impact the enjoyment of the trails that the neighborhood is famous for.	Your concerns regarding aesthetics and operational noise have been acknowledged. Please see Master Responses 1, Aesthetics; and 3, EMF and Operational Noise.
Valerie Livesay	SDG&E must be required to prepare an Environmental Impact Report (EIR) before the dangerous power line is approved.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Rebecca Livingood	I do not support this project and would vote to have the power lines installed underground as I have 3 young children who live and go to school in San Marcos at Double Peak. I do not want them growing up around another set of high tension wires that can cause adverse effects on their growth and development.	Your preference for underground power lines and concerns regarding human health are acknowledged. Please see Master Response 3, EMF and Operational Noise.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Pamel Llanos	No power lines!	Your preference for underground power lines is acknowledged. Please see Master Response 4, CEQA Process
Maryann Lopez	Please prepare an EIR so alternatives such as undergrounding can be considered that will significantly reduce the effects on the environment. It is worth the additional cost to not increase our wildfire risk and environmental damage.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process
Susan Lowe	We want an Environmental Impact Report. The safety of our San Elijo Hills community should be a high priority.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Francis Ludwig	I would like to see an environmental impact study conducted regarding the project to install above ground telephone poles. The fact that there had been such a backlash against this project, should be an indication that you have failed to consider the impact to residents and their respective communities.	Your preference for underground power lines, and request for an EIR, is acknowledged. Please see Master Response 4, CEQA Process
Andrea Lukowiak	Please reconsider building above ground power lines through San Elijo Hills. Residents are very concerned about fires danger, property values, and aesthetics. Please do a study regarding putting the lines underground. Undoubtedly this will be more experience than the above group option, but the residents affected believe the benefits will far outweigh the extra costs. Thank you very much.	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, and property values are acknowledged. Your request for an EIR is also acknowledged. Please Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.
Angela Luque	My name is Angela Luque and I live in Rancho Dorado. My community is adjacent to San Marcos Blvd (just south). I strongly request that an Environmental Impact Report be conducted so less impactful routes are studied. I will be most impacted by Segment 1 which is going to replace the existing wooden poles for steel poles (twice as high) as the existing ones. Many homes in my community have yards that backup against the existing poles. The community is on a slope below San Marcos blvd (about 100 feet down slope) so the visual impact is pronounced The photos in the Mitigated Negative Declaration report only shows views from San Marcos Blvd. to the High School and commercial businesses but fails to show the visual impact from the homes looking up at the poles. This will greatly affect our property values of our homes. I request other routes be considered such as routing them on the side of the street closer to the business park that has businesses sitting further away from the poles. I will also be impacted by segment 2 which will add the additional adjacent power lines. This will increase the fire risk in our community trails filled with brush and natural habitat. This will also make it tough to find homeowners insurance. As many of my neighbors, I request that the underground option be considered. Mostly in light of the Northern California fires that show PG&E equipment was at fault. It appears to make more business as well as public safety sense to underground the poles. Below is a picture showing how close the poles are from the homes in my community	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, human health, insurance, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues. See Appendix B.2 for comment attachments.
Erick Luque	My name is Erick Luque and I live in Rancho Dorado. My community is adjacent to San Marcos Blvd (just south). I strongly request that an Environmental Impact Report be conducted so less impactful routes are studied. I will be most impacted by Segment 1 which is going to replace the existing wooden poles for steel poles (twice as high) as the existing ones. Many homes in my community have yards that backup against the existing poles. The community is on a slope below San Marcos blvd (about 100 feet down slope) so the visual impact is pronounced The photos in the Mitigated Negative Declaration report only shows views from San Marcos Blvd. to the High School and commercial businesses but fails to show the visual impact from the homes looking up at the poles. This will greatly affect our property values of our homes. I request other routes be considered such as routing them on the side of the street closer to the business park that has businesses sitting further away from the poles.	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, insurance, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues. See Appendix B.2 for comment attachments.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Erick Luque (cont.)	I will also be impacted by segment 2 which will add the additional adjacent power lines. This will increase the fire risk in our community trails filled with brush and natural habitat. This will also make it tough to find homeowners insurance. As many of my neighbors, I request that the underground option be considered. Mostly in light of the Northern California fires that show PG&E equipment was at fault. It appears to make more business as well as public safety sense to undergound the poles. Attached is a picture showing how close the poles are from the homes in my community	
Birgit Lynn	After attending the community meeting I believe SDG&E needs to conduct an environmental impact report. We live in a high fire area and having lived through the evacuation in 2014, the proposed changes and additions to the power lines will cause unnecessary risk to further endanger our area with an increased risk of fires. I am in favor of underground utilities. It would not only be aesthetically pleasing to our neighborhood but also would be a much safer alternative. Thank you, I am hopeful that you will not just consider the monetary cost but more importantly the impact of the human cost in lives next time we have to evacuate due to fires.	Your preference for underground power lines is acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process.
Yvette Lyons	To whom is may concern: As a resident of Carlsbad on the border of San Marcos and Vista, I am opposed to the SDGE TL6975 69kV Project (Project). As it is we have so may concerns for the health and safety for our residents as well as our environment. I want my voice added to all those who oppose this project. Sincerely, Yvette Lyons, Ph.D.	Your opposition to the proposed project is acknowledged, as are your concerns regarding human health and safety.
Jiyue Ma	Please do NOT put up more above ground powerlines to endanger our families and community with even worse fire hazards. Please bury all the powerlines underground.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process
Li Ma	Dear Sir or Madam, My comments would cover the following points! - Wildfire risk due to additional above ground power lines - Power outages - Evacuation routes - Declining property values - Impact on scenic and hiking trails As a SEH residence, I strongly opposed this ridiculous plan, as it puts all the SEH residences in extremely high risk of wild fire. We are already in dangerous. Adding more powerlines will make it worse. With more housing built here, San elijo road is already getting more and more crowed. We don't want to die in sitting in the traffic during wild fire. More housing+ crowd road+ more wild fire with adding more power lines = DEATH!!!! AS a mom of 4 kids, we love the community. But there are power lines crossed our schools and affecting our kids' health, putting them in dangerous! We also use a lot our hiking trails! We must stand up and voice for ourselves! I love to see city developed well and increase the need for power lines, BUT All power lines should go underground, this is the world trend, DO NOT go against the trend. To save money now will cost you more money in the future. Be smart! Thank, Li Ma	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, human health, and property value are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues
Ray And Sherry Macias	We do not want large power-lines erected in front of the Laurels Neighborhood. This is our neighborhood. We believe this will reduce the value of the homes in our area. It's very ugly. There's a chance there are health concerns. There must be a better way. We adamantly oppose this.	Your opposition to the proposed project and concerns regarding aesthetics, property value, human health, and alternatives are acknowledged. Please see Master Response 4, CEQA Process; 5, Non-CEQA Issues; 1, Aesthetics; and 3, EMF and Operational Noise.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Regina Malm	I want a environmental impact report!!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Richard Manley	When we first moved into our home on 1200 White Sands Drive we had an old fashioned brown telephone pole. It was not a perfect situation, but it was vastly better than what we ended up with after a rather deceptive push by SDGE to install new poles that they claimed (in a letter) would not be too far off from what we originally started with. I included several images and invite you to consider if you would you permit such an unaesthetic monstrosity to enter into (and grow) in your neighborhood? Would you welcome the huge loss in your own property values due to the altered aesthetics? Would you question the increased wildfire risk these changes bring to an already arid open space wilderness location as it exists and can be seen in the images below? Recently, we have been surrounded by wildfires on either side of us. Wild fires are costly and hazardous. Would you want the added risk for yourself or your families? Additionally, would you think twice about raised EMF's (this will surly bring) if you were expecting a baby or had a young child? An SDGE inspector has confirmed an already higher EMF level is being emitted from the back of our home. Corporations should act responsibly toward the environment and the communities they serve. In this case since SDGE is not doing so voluntarily the PUC needs to step in and protect the interest and wellbeing of citizens. While it is understandable that SDGE is in business to serve customers, it becomes a disservice when done to do so without first exploring every alternative avenue. The future is in under grounding lines and SDGE has admitted as much. An EIR at this point should be mandatory. Please have SDGE revisit the 5.4 mile underground route as opposed to the 12 mile monstrosity. The long term benefit will mitigate the cost. The SDGE representatives have expressed a rational for not going underground based on their cost alone—not ours. These add on poles dug into protected habitat are environmentally irresponsible, shortsighted, put an unfair burden on homeowners in the communities where they intend to install them, and must be revisited by the PUC and altered to serve the people they claim to be serving. This is where you can help us and them to move forward the right way.	Your request for an EIR, preference for underground power lines, and concerns regarding aesthetics, wildfire, EMFs, alternatives, wildlife, and property value are acknowledged. Please see Master Responses 4, CEQA Process; 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; and 5, Non-CEQA Issues. For all other concerns regarding biological resources and/or wildlife, refer to Section 3.4, Biological Resources in the Draft IS/MND.
Nathalie Marois	Please conduct an EIR on SDG&E's project!!!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Clint Marsh	EIR! This is a horrible solution for residents of the area. Please do not add power poles to my neighborhood. Protect my family and children from the potential danger. Please.	Your concerns regarding the proposed project and your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Clint Marsh	PLEASE do not put the power lines by our home in San Elijo HIlls.	Your opposition to the proposed project and preference for underground power lines or another alternative is acknowledged. Please see Master Response 4, CEQA Process.
Derek Marsh	PLEASE don't put the power lines by our home in San Elijo HIlls.	Your opposition to the proposed project has been acknowledged.
Jennifer Martin	As a parent and long time resident of the community of San Elijo Hills I implore you to modernize! My family was evacuated during the Cocos fire. We know first hand how strong the threat of wildfire is to this community. Put the new electric utility lines underground. It's the responsible choice. It's the SAFE choice for the future of our children.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
Kenneth Martin	We have been living in San Elijo Hills for over 12 years and greatly disapprove of the plan. Please conduct an EIR on SDG&E's project. Sincerely, Ken martin	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Shelly Martin	The project that SDG&E proposes is very concerning to me, as I live in a community affected by the proposed power lines. I would understand if this plan had been submitted when we purchased our home in 2010, however, to be blindsided by the project is a very unfair move.	Your concerns and statements are acknowledged.
Bettina Martini	I'd like an EIR done	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Boris Mathiszik	NO POWER LINE!!!	Your preference for underground power lines is acknowledged. Please see Master Response 4, CEQA Process
Colin Mathiszik	NO POWER LINE!!!	Your preference for underground power lines is acknowledged. Please see Master Response 4, CEQA Process
Cameron Matthews	In the Public Draft IS/MND, I see no mention of an analysis of an underground/trenching solution vice overhead. I am concerned with the risks of an overhead solution and want an alternative solution proposed and evaluated (with public review) before an overhead solution is accepted.	Your preference for underground power lines or another alternative is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.
Stacy Matthews	My name is Stacy Matthews and I have lived in San Elijo Hills for 19+ years and in that time the power lines / towers / poles have been increased and have had a significant impact on the quality of the aesthetics of our community. It is especially evident as one drives into the community traveling eastbound on San Elijo Road in to the community of San Elijo Hills - segment 2 (see picture attached - view from opposite direction). The entanglement of power lines are not what we expected when we moved into this community and it is an eye sore on the feeling of the community and seems like an out dated way of running power above ground thru one of the largest fire hazard areas of north county San Diego (rural areas of San Marcos and neighboring communities). We would like the CPUC to approve and direct the SDGE to do a more in depth EIR to take this into consideration. Thank you, Stacy Matthews	Your concerns regarding aesthetics and wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; and 4, CEQA Process. See Appendix B.2 for comment attachments.
Stacy Matthews	Attention CPUC, I have lived in San Elijo Hills, San Marcos CA since 2000 and my home is next to power towers #83 in Segment 3 and I have several concerns. 1. I believe the Evironmental assessement that was done does not take into consideration the actual impacts on our community. I feel that the likelyhood of fire effecting the power lines behind my home and the lines in our area in general is extremely serious and the cost of downed / loss of above ground power and the potential damage has not been fully articulated or assessed. I beleive a more in depth E.I.R. is necessary to assess the dangers of fire and wind to the power lines and cost to SDGE and the cities when those lines or power is down or causes damages to individuals or our community as a result. 2. Since moving to the area in 2000, I have noticed a marked increase in the size and number of new poles and lines, mainly in segment 2 and feel this has severely impacted the quality of aethetics of our community as well as for the residents near the proposed taller / larger poles. Driving into our community now looks like an entanglement of power lines / poles and is not what was present when we decided to move to the community of San Eliho Hills. 3. I am very concerned about the EMF output of the existing power lines behind my home along segment 3 and it was not clear at all in the current environmental assessement what the increase in EMF output there will be and the potential heallth risks to people living as close to the lines as we do. There are young families with little children living very close to the existing towers and with new, higher power expected, there must be greater impact to health. 4. We hear the sound of the power lines at night and wonder what kind if impact the increased electrical power will have. 5. My other concern is the fact that we have been dropped by two insurance companies for being in a	Your preference for underground power lines and concerns regarding wildfire, human health, operational noise, and insurance are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; and 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Stacy Matthews (cont.)	severe fire impacted area (segment 3 is in the most impacted fire area that effects our City and neighboring cities). I have lived thru three fires and been evacuated three times when high winds we blowing the lines near our home in segment 3 and fire was eminent. In my opinion, the segment 3 above ground lines are at most risk and impact from fire and this should be more thoroughly documented in an Ervironmental Impact Report. Sincerely, Stacy Matthews 1740 Kenwood Place San Marcos CA 92078	
Thomas Matthews	My name is Thomas Matthews. I live at 1740 Kenwood Place next to segment 3 powerline improvement. My concerns are that the increased towers and line are a threat to the visual aesthetic of our community, as well as a health hazard. More than that, we have lived through three fire that has threatened San Elijo Hills and my fear is the "improvement" are an additional threat of contributing to or being an accelerant to, and fire that may start. We've seen this danger and if a fire affected this line and caused them to drop, the contributing factor could decimate our community. I aslo and very concerned about how the incerased EMFs will threaten our health. On a final note, these towers and lines are ugly and unneccesary, lowering our property vales and making the life we invested in nearly twenty-years ago less desireable. Please take this into consideration and demand a deeper EIP Study. Our very ives may depend on it.	Your concerns regarding aesthetics, wildfire, and human health are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process
Brittany Mayer	I need the EIR, please send. Thank you.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Lynn Mayers	I am a homeowner in Rancho Dorado and concerned about the negative aesthetics of the large ugly power poles and their impact to the property values of our neighborhood. SDG&E is undergrounding power lines in the Rancho Bernardo area. Per their project manager, their reasons include " better aesthetics minimizing environmental impacts and future maintenance." So, SDG&E admits that their power poles and lines have a negative impact on surrounding neighborhoods. These power lines in the Rancho Dorado neighborhood need to be placed underground. I would like to request that CPUC directs SDG&E to perform an EIR exploring alternatives to this horrible project.	Your preference for underground power lines or another alternative is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.
Rob Mayers	It's absurd that SDG&E is proposing a second set of additional huge power poles alongside the current huge transmission lines in San Marcos which would be a fire risk rather than placing these underground. The County of San Diego's Natural Hazard report lists this area as a Very High Fire Hazard zone) I am also concerned about the negative aesthetics of the large ugly power poles and their impact to the property values of our neighborhood. SDG&E is undergrounding power lines in the Rancho Bernardo area. Per their project manager, their reasons include " better aesthetics minimizing environmental impacts and future maintenance." So, SDG&E admits that their power poles and lines have a negative impact on surrounding neighborhoods. These power lines in the Rancho Dorado neighborhood need to be placed underground. I would like to request that CPUC directs SDG&E to perform an EIR exploring alternatives to this horrible project.	Your preference for underground power lines, alternatives, request for EIR, and concerns regarding wildfire, aesthetics, and property values. Please see Master Responses 4, CEQA Process; 2, Wildfire; 1, Aesthetics; and 5, Non-CEQA Issues.
Robert Mayers	I am a concerned resident and homeowner of the Rancho Dorado neighborhood in San Marcos, where SDG&E is proposing a second set of additional huge power poles alongside the current huge transmission lines which would be even 30-50 feet closer to our homes. I am concerned about the fire risk, as the County of San Diego's Natural Hazard report lists this area as a Very High Fire Hazard zone. I would like to request that CPUC directs SDG&E to perform an EIR exploring alternatives to this horrible project.	Your concerns regarding wildfire is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 2, Wildfire, and 4, CEQA Process

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Calille Maynard	I live in Rancho Dorado and the current powerlines run right outside my house. I can't imagine additional powerlines running through a canyon that is already a fire hazard being a safe idea. Since there is an option of running them under ground it needs to be properly pursued. We are requesting the Environmental impact report be done before any decisions are made.	Your concerns regarding wildfire is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 2, Wildfire, and 4, CEQA Process
Melodie Mcalpin	This project could be disastrous for our community. There's no reason for above ground when this can be done below ground with less risk	Your opposition to the proposed project and preference for underground power lines or another alternative is acknowledged. Please see Master Response 4, CEQA Process.
Sean Mccaffery	Great to see expansion in our Country. However this should be done in a measured manner that takes the environment as well as personal well being in to account. Given all risks in fire hazards and the fact that the Country has recently rated our neighborhood of Rancho Dorado a wild fire risk zone 6, this has already impacted our insurance policies (only limited insurance companies insure at a higher cost - my policy went up by $800 per year), as well as reduction of property prices which directly impact my family. An alternative would be to place underground so that nature and reduction of a potential fire hazard could be avoided. Let's please make the right choice looking at long term considerations and not the fastest one. This would be a refreshing change	Your concerns regarding wildfire, insurance, and property value are acknowledged. Please see Master Response 2, Wildfire; and 5; Non-CEQA Issues.
Dan Mccarthy	Several years ago SDG&E had an opportunity to do the right thing and bury the power lines rather than remove the wood poles in favor of the steel poles. After the catastrophic Camp Fire that caused PG&E to file for bankruptcy one would think that consideration would be given to going underground with the existing lines. In stead SDG&E wants to hang more lines to the detriment of our wild life, property values and our views. I would ask SDG&E to reconsider this project.	Your preference for underground power lines and concerns regarding aesthetics, wildfire, and property values are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire, and 5, Non-CEQA Issues.
Carrie Mccluskey	I want an EIR on TL6975	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Charles Mcdonald	Please conduct an EIR on SDG&E's project	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Craig McDowell	According to 01_Appendix_3_PEA_SDGE_TL6975.pdf, this plan is running a second set of lines directly behind my house where SDGE has already replaced the smaller wooden poles with giant metal towers since I've lived in the home. The proposed new lines would be even closer to the house than the current towers which are already extremely close to the property. When I moved in, the realtors stated the home was a bit harder to sell because of the existing small wooden poles that were there in 2009 when I bought the home. because even those wooden poles were visible from the street in front of the home and from the back yard. Since the new towers went up, the whole skyline behind the home is power lines and poles which is only going to make that situation considerable worse. Not to mention the new high transmission lines makes noise at night due to the buzzing when it's humid and adding a second set even close is going to make using the backyard less appealing from a sound standpoint and tons of ugly high power lines blanketing the rear skyline. I've attached a Google Maps PDF of how the current high power transmission lines look behind the house right now. I can't even imagine how ugly and unappealing another set of those transmission lines will be and even closer than the current ones. We'll likely take a large hit when trying to sell the home. I do not want more transmission lines behind my house. -Craig	Your opposition to the proposed project and concerns regarding aesthetics, noise, and property values are acknowledged. Please see Master Responses 1, Aesthetics; 3, EMF and Operational Noise; and 5, Non-CEQA Issues. See Appendix B.2 for comment attachments.
Krista Mcfadden	Having been born and raised in Encinitas- I watched it go from sleepy Beach town with so much character to being destroyed by out of control development. We made our family's home in San Elijo Hills 16 years ago to get back to nature and beauty and a more personable community. I am adamantly opposed to the above ground power lines being place in this area which not only atrocious to look at but puts my family's safety and health at risk! Please send me an EIR on TL6975. Thank you and please take this into serious consideration for those who have proudly made SEH their home!	Your preference for underground power lines and concerns regarding human health and safety are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire, Master Response 3, EMF and Operational Noise; and 4, CCEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Lia Mcguinness	A new above ground, steel transmission pole system should not be approved because of the negative impact on the environmental aesthetics that the City of San Marcos Master Plan worked so hard to preserve in this area. The installation of steel poles to replace wood poles done about 5-8 years ago (can't recall date) was a serious detriment to the community's open space and views. Adding a second system like this would seriously damage the community's key attributes of open space and views, and contradicts the City's efforts to preserve the natural beauty of its city. Alternative methods to preserve the City's natural attributes, such as below ground, should be considered	Please see Master Responses 1, Aesthetics; 4, CEQA Process; and 5, Non-CEQA Issues.
Allan Mckendrick	Please conduct an EIR on SDG&E's project, it is to important to all of us who live in Rancho Dorado	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Rita Mckendrick	Please conduct an EIR on SDG&E's project, it is very important to all of us living in Rancho Dorado and surrounding area's.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Nicole Mckenzie	Prepare an EIR so alternatives such as undergrounding can be considered that will significantly reduce the effects on the environment. It is worth the additional cost to not increase our wildfire risk, or to not destroy the aesthetics of our beautiful neighborhood, or to not cause millions of dollars to be lost in property values.	Your preference for underground power lines and concerns regarding wildfire, aesthetics, and property values are acknowledged. Please see Master Responses 1, Aesthetics, 2, Wildfires, 5, Non-CEQA Issues. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.
Michael Mckittrick	Please conduct an EIR on this SDG&E project	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Adam Mcmahon	To whom it may concern, I currently live across from the power lines already established here in San Elijo and it's a constant source of ire for us. They are not only unsightly, they are considered a health hazard and detract from the property value. We've had several potential buyers comment about them and have decided against our home when it was for sale because of them. With the ability to bury the lines underground, I don't understand why these monstrosities continue to pop up inside of neighborhoods? There should be a law creating a minimal distance between communities and power lines considering the data on potential health risk. Please reconsider and take this as my vote against new power lines going in.	Your opposition to the proposed project, preference for undergrounding, and concerns regarding aesthetics, human health, and property value are acknowledged. Please see Master Responses 4, CEQA Process; 1, Aesthetics; 3, EMF and Operational Noise; and 5, Non-CEQA Issues.
Jennifer Mcmahon	I would like an EIR report please.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Stacey Mcmahon	I've been a homeowner in SEH for for over 13 years and lived in the immediate vicinity since 1992. I am outraged of the plan to add more power lines. I currently have lines that run directly in front of my house and know first hand how it affects my property value. We've tried to sell our home a few times and one of the issues that always comes up is the fear of the lines. It's not a coincidence that my home value is almost $100k less than smaller less upgraded homes that do not have a view of the lines. Adding more would be a terrible dis-service to our community. I've been evacuated 7 times for wild fires and my understanding is that the power lines would increase our risk of fire. SEH does not have the infrastructure to support mass evacuations and you would be increasing our safety risks exponentially. During a recent high wind alert the lines were shut down and power cut to our area because we were told there was a severe risk of then sparking fires. Now you are looking to add more? This is madness! SEH home owners pay an exorbitant amount of property tax and one of the highest Mello-Roos taxes in the county of San Diego. It is not right that you would endanger our safety and health while also diminishing our homes value with this project when there is another readily available solution. please do the right thing!	Your opposition to the proposed project and concerns regarding property value, wildfire, and human health are acknowledged. Please see Master Responses 5, Non-CEQA Issues; 2, Wildfire; and 3, EMF and Operational Noise.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
John Mcrandal	I urge the CPUC to consider alternatives this project, and would ask that SDG&E be mandated to install any new power lines underground. At the very minimum, please ensure an Environmental Impact Report (EIR) be conducted so that any viable alternatives can be considered. I am concerned about the damage done to property values by installing large above-ground structures that create poor aethestics, but I am even more concerned about the harmful effects that arise from the health & safety concerns that above-ground power lines pose. Just 6 weeks after my home was built our community was evacuated because of the local fires in 2014. Ingress/egress is very difficult in this community and it poses a great risk to our residents, especially in emergencies like fires. Tragically, we've seen in Paradise, CA the devastating effects of utility companies' above-ground power lines and the CPUC MUST ACT RESPONSIBLY AND APPROPRIATELY BY EVALUATING ALL ALTERNATIVES TO WHAT THIS PROJECT PROPOSES. WE PLEAD WITH YOU TO HEAR OUR RESIDENTS' CONCERNS!	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, human health, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.
Kimberlee Mctigue	Please e-mail me an Environmental Impact Report regarding CPUC SDG&E San Marcos to Escondido TL6975 69kv Project. Thanks, Kim	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process
Payal Mehta	Want an Environmental impact report on this project.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process
Jackie Mellor	I want an EIR	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Jeannine Melville	Please stop the addition of above ground power lines in our community of San Elijo Hills.	Your opposition to the proposed project and preference for underground power lines or another alternative is acknowledged. Please see Master Response 4, CEQA Process
Yuki Mese	How a PUBLIC utility company can unilaterally make a decision that could adversely impact the lives of so many is beyond me. I urge you to please conduct an EIR so a thorough analysis of viable alternatives can be completed before approving SDG&E's proposed project. Thank you.	Your preference for underground power lines or another alternative is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.
Cheryl Meyer	Please complete an EIR.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Cheryl Meyer	We love where we live, and we will fight to maintain our quality of life here. Please conduct an EIR.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Michael Meyer	My name is Michael Meyer and my residence is located approximately 70 feet from pole 67 in segment 2 of the proposed project. I have several concerns about the addition of another transmission line in this area when there appear to be viable alternatives that will only be seriously considered unless an EIR is prepared. The addition of this transmission line does increase fire risk due to it being a smaller transmission line with conductors closer to the ground than the existing transmission line. How does the potential property damage that could result from such a fire compare to the cost of unexplored alternatives that do not have this increased risk? Please prepare an EIR. The addition of this transmission line is to be sited in an area where many small children reside including my own children ages 2 and 7. The department of education would not allow a new school to be located where my residence is sited due to the proximity of the proposed transmission line. Is the safety of my children of less importance at their place of residence than where they are educated? If there are alternatives that exist without this issue why are they not being explored? Please prepare an EIR. The addition of this transmission line will also have short and long-term effects as it relates to the construction in the area directly behind my residence. In Figure 1, below, the pins labeled “permanent disruption 3” and “permanent disruption 4” and the two unlabeled pins identify the proposed area of	Your preference for alternatives, request for an EIR, and concerns regarding wildfire, dust, noise, and aesthetics are acknowledged. Please see Master Responses 4, CEQA Process; 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise and Sections 3.3, Air Quality and 3.13, Noise in the Draft IS/MND. See Appendix B.2 for comment attachments.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Michael Meyer (cont.)	construction. This is only 60 to 70 feet from the residence so it is clear there will be substantial noise generated at the residence during construction. While I do see mitigation measures identified to partially address this such as “relocation”, how does this compare to the unexplored alternatives which might not affect any individuals to such an extent? Please prepare an EIR. We also have a koi pond located at the pin labeled “pole 67 view 1” in Figure 1. What mitigation measures are going to be in place to make sure the herbicides used to denude the construction area do not harm our fish which are sensitive to the herbicides identified? The prevailing winds typically are from the direction of the construction site to our residence. The long-term effects to the areas where construction will occur have not been specifically identified. It is unclear as to what other issues we many being dealing with long term such as dust and the aesthetic changes from chaparral to dirt. How do these changes compare to the long-term effects of the unexplored alternatives? Please prepare an EIR. The last area of concern is related to incremental aesthetic changes due to both the existing and proposed transmission line. The videos Time lapse video 1 and Time lapse video 2 show the incremental changes that have occurred since 2001 when we moved into our current residence. The approximate view points for those videos correspond to pins “pole 67 view 1” and “pole 67 view 2” in Figure 1. The photo Sunset View 1, is the current sunset view. Based on the proposed location of pole, there will now be an additional transmission pole obscuring the sunset. Prior to the installation of the existing pole in the spring of 2010, this was not obscured by any transmission pole. How do these aesthetic changes compare to the unexplored alternatives? Please prepare an EIR. Thank you.	
Troy Meyer	Conduct an EIR so a thorough analysis of viable alternatives can be completed before approving SDG&E's proposed project	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Daixiong Miao	Giving how dry southern California climate can be, the power lines will be a great fire hazard. You should be buried down the ground and any increase in cost can can be accommodated by increasing the utility rate. I don't mind paying more for electricity. Having exposed power lines so close to the neighborhood is not acceptable.	Your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire
Jackie Mifune	I am highly against having more power lines built above ground in our community. It is a fire hazard and very unsafe. These power lines should be made underground. Its also a health hazard to live close to power lines and will devalue our homes and our great community.	Your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire
Yoshi Mifune	I'm highly opposed to putting in power lines above ground in San Elijo Hills. This is an extreme fire hazard & it's very inconvenient to have your power shut off during the winds because of fire hazards for above ground lines. This can be avoided if we put them underground instead. It's also an environmental hazard & will drive down the price of our homes. Please reconsider & put these lines underground!!!	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process.
Arthur Miguel	I want an environmental impact report	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Joan Miguel	I'd like an Environmental Impact Report	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Jeffrey Millard	I am writing to encourage a full environmental impact report be conducted! I have lived in this neighborhood in this home for 17 years. When they were I was appalled at how much larger the steel poles were than the oirginal wooden ones. I walk on the trails that run under these poles nearly everyday. Aesthetically, the impair an otherwise pleasant hiking trail. I am also concerned about the increased risk of wildfires. Power lines have been the cause of several devastating fires. According to the NY Times (March 18, 2019), "Five of the 10 most destructive fires in California since 2015 have been linked to PG&E's electrical network". A full environment assessment report should be conducted and include an analysis of these risks. Thanks you!	Your concerns regarding wildfire is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 2, Wildfire, and 4, CEQA Process

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Leslie Minger	The project to add overhead power lines in high fire risk areas is irresponsible. The area has experienced multiple years with devastating fires. Evacuations of impacted areas are difficult and take a long time. Adding overhead power lines to an overflowing tinder box has the potential for a catastrophic outcome including loss of life and property. Home insurance companies have begun to cancel policies and/or raise rates due to the high fire hazard that already exists. Above ground power lines are turned off during high winds a fire prevention method. The utility company is clearly aware of the fire hazard. Additionally, shutting off power lines is more an inconvenience to residents and businesses that rely on power. It is insanity to add additional above ground lines. Building these lines underground is the only logical answer.	Your preference for underground power lines and your concern regarding wildfire, and insurance are acknowledged. Please see Master Responses 2, Wildfire; and 5, Non-CEQA Issues.
Mahendra Misra	I am against this project of running the overland lines in the existing corridor by installing additional towers. When I look out my backyard, it is an ugly sight as it is to see 13 HT wires running across and to add one additional set is going to make it look even worse and not to mention its effect on the property value. In addition, overland wires create fire hazard, the valley is full of foliage that can burn easily and compromise our property (see attached photographs) during strong Santa Ana winds. A thorough environmental study needs to be carried out including the fire hazard and effect on property values and undergrounding needs to be considered seriously. I can't imagine you are ignoring the short direct underground run in favor of overland wires.	Your preference for underground power lines and your opposition to, and concerns regarding aesthetics, property value, and wildfire are acknowledged. Please see Master Response 4, CEQA Process; 5, Non-CEQA Issues; 1, Aesthetics; and 2, Wildfire. See Appendix B.2 for comment attachments.
Peg Mitchell	It is imperative to prepare an EIR. In these times of exacerbation of wildfires due to climate change, under grounding these lines should be the FIRST consideration. I have had to evacuate San Elijo Hills twice due to fires, one of them burning right up to the top of Double Peak. SDG&E has already wasted millions trying to get out of passing on the last major wildfire costs to us ratepayers. PG&E is declaring bankruptcy due to fires. Why in light of these events would you not REQUIRE under grounding? Please complete the EIR.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process
Daniela Moehlecke	I want an EIR on TL6975. Power lines caused California deadliest fire in 2018. We can't allow more over head power lines. We're talking about lives, families, homes. Easy for them to file bankruptcy after ruining thousands of lives and destroying homes!	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2 Wildfire, and 4, CEQA Process.
Eduardo Moehlecke	Please conduct an EIR on this SDG&E's project! Electrical power lines are the main caused of wild fires. The existing and proposed additional power lines above ground will significantly increase the risk of fire on a area that is already considered a high fire hazards area. Insurance companies have already declined coverage for some of the homes in the area due to such risks. The proposed TL6975 69kV project posses serious risks to the health and safety of the many residents in the area and should not be approved specially since underground alternatives are much safer and beneficial to the community.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process
Jen Molander	I urge the PUC to have an Environment Impact Report done for this project, a underground system should absolutely be thoroughly explored. We live in technological booming age and there's no reason to put any additional wires above ground, in fact they should put the existing ones underground while they are in there doing the additional set. The fact that the PUC hasn't explored that option because SDGE didn't put it in the proposal is ridiculous. When I bought my house I could only find one insurance company that would insure us because we live on the canyon and in a high fire danger zone. Adding another set of above ground poles will just increase the probability of fire. It is from an aesthetic point a major eye sore from my backyard and the appraiser has already said it we'll lose some $ on the house if we sold and with double poles, it would be quite significant. Since the pole will be lower than the existing ones that would put 12 wires instead of 6 wires across my entire view besides the giant pole. I have attached the view of the pole from my backyard. I urge you to have an EIR done so at least if we lose it will be because all of the options were explored. Thank you.	Your request for an EIR, preference for underground power lines, and concerns regarding other alternatives, insurance, wildfire, aesthetics, and property values are acknowledged. Please see Master Responses 4, CEQA Process; 5, Non-CEQA Issues; 1, Aesthetics; and 2, Wildfire. See Appendix B.2 for comment attachments.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Kara Molesworth	Please conduct an EIR on TL6975!!!! My family owns a home in one of the areas affected by the proposed project. My husband is a cancer survivor. Once someone you love goes through something as terrible as cancer, your views on taking risks with health change. I don't want above ground electrical lines anywhere near my family. I would love for the ones that are already in the community to be put underground. But, to be thinking about adding more, when there are other options, is outrageous. Our community is made up of families and children. Please put our health over the bottom line/$. Please conduct an EIR on TL6975. Thank you!	Your preference for underground power lines and concerns regarding human health are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 3, EMF and Operational Noise and 4, CEQA Process
Kara Molesworth	Please conduct an EIR on TL6975. We live in this community and we are very concerned about the fire risks that the above ground lines bring. We were here for the last fire evacuation and it was terrifying having only one way in and out of our community. These lines will increase the risk and put thousands of families in danger. This is not the place for above ground lines! Please conduct the EIR!	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process.
Jessica Monahan	I want to express my objection to the proposed above ground power lines. In light of the high risk of fires and difficulty evacuating this community, I recommend lines underground or in a less high risk area.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 2, Wildfire; 3, and 4, CEQA Process.
Jim Moore	This is not acceptable. Any sort of changing that is done should be to moving the power lines under ground only. I am shocked that this is even being considered. No expanded areas!	Your opposition to the proposed project and preference for underground power lines or another alternative is acknowledged. Please see Master Response 4, CEQA Process.
Lee Moore	Above ground power lines are dangerous. They should all be underground in areas at high risk for fire. Don't add more, Burt the ones that are already there. Please conduct an Environmental Impact study to look into putting these lines underground.	Your preference for underground power lines or another alternative is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process
Mette Moore	I am writing as a concerned resident in San Marcos, specifically San Elijo neighborhood, to urge the city to require any new power lines to be underground vs. adding more above ground lines. After watching the Camp Fire destroy an entire town due to a spark from a power line, I don't understand how it would even be considered a valid option to add above ground lines. In fact, we should be burying existing lines instead. For anyone in San Elijo during the 2014 evacuations, it's not hard to imagine the carnage that would have resulted if we were under the conditions of the Camp Fire last year, where the residents of Paradise had only minutes to evacuate. In San Elijo, it was a parking lot trying to get out. It's very scary to think what could have happened while hundreds (thousands?) of us sat there like sitting ducks. Following the 2014 fires it was also more difficult to get home owners insurance due to fire risk. The city has already put us at risk by continually approving new housing projects with no improvements to infrastructure. If it took an hour plus to get out in 2014, I can't imagine how much longer it will take to get everyone out if we had to evacuate again. Please don't add even more fire risk for us. I will admit that I'm additionally concerned with decreased property values that will affect our community, but safety is far and away my main concern. Please at least require an environmental assessment to evaluate the possibility of underground lines. From what I understand, running them underground could even provide a more direct route. This is in addition to reducing fire risk, reducing EMFs, reducing noise, preserving property values and enjoyment of our scenic trails. Please put our safety and quality of life ahead of corporate interest.	Your preference for underground power lines and concerns regarding wildfire, insurance, property values, EMFs, noise, and scenic trails are acknowledged. Please see Master Responses 4, CEQA Process; 2, Wildfire; 3, EMF and Operational Noise; and 5, Non-CEQA Issues.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Sherrill Moore	I am participating in this public forum process because of the serious, possibly destructive/catastrophic outcomes of this proposed project. I, among others, request/support/demand an Environmental Impact Report be completed prior to any change, addition or modification of towers/equipment in SEH. SDG&E has a history of euipment starting fires resulting in massive destruction and impacting lives. My questions 1. who decided these new towers should be located in SEH. 2. what areas will they serve and who will benefit from these new towers. 3. why SEH - who decided 4. where on this location and who approved it - we already have many towers in our community (approx 15-20) some are wood and some metal - why do we need more here. Concerns: my neighbors and I were evaluated in 2007 and 2014 due to wildfires. Accompanying these mandatory evacuations is the inability to quickly evacuate because possible egress raods were closed due to fire; there was only one road outlined with family cars waiting to escape. With even more housing and a second school, increasing the number of people and structures what provisions are included to address evacuations.	Your request for an EIR and concerns regarding safety, wildfire, and evacuation routes are acknowledged. Please see Master Response 2, Wildfire.
Amira Morcos	We moved to the San Elijo Hills four years ago due to the beauty, excellent school system and valuation in the different neighborhoods. This initiative creates health problems, higher fire danger and a reduction in the valuation of the homes. Our health and that of our children is paramount and should be that to SDG&E. What is the value of human life, one would think it would be invaluable. The higher chance of fires is something that we were told could be mitigated by 'daily check of the areas where the poles are'. This would need more than an army of people; why not use the cost of the army plus into putting wires underground? The idea that each pole will be checked daily is hugely unrealistic; one has to ask if it's being done now with the poles already in place. The San Elijo Hills Sagewood neighborhood has one street out. We missed the last evacuation but what we've heard is completely scary. There is of course more people in the area than there was then so the question has to be asked, how does SDG&E expect to alleviate this? All of the above results in a reduction of the our home values; this is a huge problem for us, the city and the state. The loss of home values is a huge problem for us, it reduces the revenue base of the city as well as the state which will further effect the residents in the form of higher taxes. So we will get hit over and over from this one action. We used to live in the Bay Area in a development about the age of the San Elijo Hills. We've never seen such ugly things as these poles nor did we have to worry about our health and that of our children. All power and telecom power went underground. We don't understand why SDG&E can't do what other utility companies have done in this state. We live in one of the most technologically advanced states in the union and yet the area looks like a third world country. Why is that? Instead of charging more to put up ugliness and health hazards, please use the money that you're going to charge to an approach that mitigates hazards and still provides the power that is needed. There is a lot of focus on protecting the environment but not nearly enough on protecting the lives of the humans that pay for the environment. It's time for SDG&E and the CPUC to elevate the value of human life.	Your opposition to, and concerns regarding, the proposed project have been acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues
Ash Morcos	we signed the closing documents there was no mention of a possibility of a project of building electric/cable towers in our neighborhood by SDG&E. We owned multiple homes in various areas of California and other states and the power lines were always underground. We chose those homes in the areas that did not have those towers built for obvious health risk and fire risk reasons. We paid a large sum of money to live here in San Marcos (San Elijo Hills) area. We are paying a large amount of property taxes as well. When the values of homes drop in the area the tax revenues for the county, city will also drop. The street we live on have at least forty children of young age that play and go to the schools in the area, aside from the huge number of children that live in the San Elijo/Sagewood community. I don't need to mention that there are studies that provide ample evidence that young children's health, as well as adults of various ages is affected by such above ground electric power poles for the transmission of electricity. I also, don't need to mention that these power lines increase the risk of fire (i,e; wild fires). San Elijo Hills was planned as a cul-de-sac community. In case of a fire, which I hear happened in 2014, there are hardly any roads that could handle evacuating residents, school children, parents, senior citizens and the	Your preference for underground power lines and your concerns regarding wildfire, evacuation routes, and human health have been acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; and 4, CEQA Issues.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Ash Morcos (cont.)	handicapped without injury and havoc. I did not see an EIR submitted with the study conducted by the CPUC. Such report I'm sure would change the decision of installing those horrendous electrical poles/towers. California is well known for wild fires due to years of drought and dry vegetation during the spring and summer months as well as drought winter years. The above ground power lines are archaic and even third world countries don't install them in the 21st century. I could go on and on and go into costs and unrealized costs including future litigation costs I will refrain from going into these issues at this time. It is very sad that SDG&E did not take into account the humanity or inhumanity to even propose such a project. I ask the powers that be to reconsider the installation of those power poles/towers and select another alternative, such as deep underground installation. Thanks, Ash	
Ash Morcos	It's absolutely ludicrous to request life and safety in the place we live, bought and we pay high taxes for. We need an EIR and to install the wires deep underground.	Your preference for underground power lines, and request for an EIR, is acknowledged. Please see Master Response 4, CEQA Process
Dina Morcos	I didn't think that we live in a Socialist Country. I'm a tax payer and resident that is demanding that this project be looked at in detail however long it might take. There are Environmental, social, health and human impacts that ate associated with this proposal negatively. I can't believe that this is going on at this day and age. It's dumb and dumber to think people would agree to such a proposal. It's demeaning and insulting to weigh the value of life against dollars. I ask the CPUC to conduct an environmental study that is honest and submit the report to the residents, edge, the mayors, the city council and the governor. I ask the CPUC to object with this proposal and suggest an under ground wires/transmitters. I ask the CPUC to objectively look at this proposal not considering the estimated cost for the project but also the future costs of human health and legal costs. I ask the CPUC to suggest that current poles be dug underground. I ask the CPUC to take the opinion of the Fire Departments. I ask the CPUC to value human life higher than their own jobs and money they earn Thanks	Your preference for underground power lines and your opposition to, and concerns regarding, the proposed project have been acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues
Monica Morcos	I look out my window from my bedroom at an ugly electric pole. I hear this will be even higher and might have higher power running through it. Even worse more poles/towers. Are you kidding me?? Not only is it ugly, also, this is bad for my health and well being. I sleep across from that. I ask you to remove these poles and get your selves into the 21st century. Burry it deep underground please. Unless you want to pay for my medical bills and purchase me a house somewhere else where you don't have a decision over my life.	Your preference for underground power lines and your concerns regarding aesthetics, EMF, and operational noise are acknowledged. Please see Master Responses 1, Aesthetics and 3, EMF and Operational Noise.
Carlo Morehead	I want an Eir on TL6975	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Jeff Morris	I want an EIR!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Kevin Morris	Has an environmental impact report been done? I bought in this area because of the open areas and nature. Will this impact the local environment? Will the lines present any electromagnetic hazard to residents? Will there be any fire hazards, especially considering the recent Camp Fire report? There needs to be an environmental impact review done, and consideration of the current infrastructure and population density taken into account. This seems rushed.	Your concerns regarding the open spaces, local environment, and electromagnetic and wildfire hazards are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; and 3, EMF and Operational Noise. Your concerns regarding the current infrastructure and population density are also acknowledged, as well as your request for an EIR. Please see Master Responses 4, CEQA Process; and 5, Non-CEQA Issues.
Natalie Morris	I want EIR!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
C. Moser	Our family does not want above ground power poles. We are concerned about the environmental impact to our community, as well as the health of all residents. Upon moving into this neighborhood, we specifically chose a home that was NOT near the metal poles due to health issues. Now, we have to be concerned about this new project which will impact residents. Please reconsider this project and consider the health of all residents.	Your preference for underground power lines and your concern regarding human health have been acknowledged. Please see Master Responses 3, EMF and Operational Noise; and 4, CEQA Process.
Debbie Moshenrose	I want an environmental impact report before you add anymore over head power towers in Carlsbad! Thank you for your consideration of this matter!	Your preference for underground power lines or another alternative is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.
Angie Mosteller	Please do not add more above ground power lines to our beautiful community. Please prepare an EIR so alternatives such as undergrounding can be considered that will significantly reduce the effects on the environment. It is worth the additional cost to not increase our wildfire risk, or to not destroy the aesthetics of our beautiful neighborhood, or to not cause millions of dollars to be lost in property values.	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, and property values are acknowledged. Please Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.
Cheryl Moulton	Please please please have an EIR done so SDG&E and the members of the community can better understand the options we SEH homeowners believe the cost to install underground lines is clearly worth the incremental benefits with respect to the safety of our residents and the aesthetics of our beautiful town.	Your concerns regarding aesthetics are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 1, Aesthetics, and 4, CEQA Process
Edward Mowry	Major Points CPUC SDG&E Power Lines Impacting San Elijo Hills. Proposed power lines above ground through San Elijo Hills: Three Significant Impacts, which require, if corroborated as significant, and EIR (Environmental Impact Report): 1- 1- Extreme fire hazard: indisputable. At best, turning off our power when high winds are present produces a significant safety risk by impeding communications and egress, in case of fire. We have had fires as recently as five years ago, and without timely help from DC 8 air-drops of fire retardant, the fires might have destroyed our community. There are only two routes out of San Elijo Hills, and the fire of five years ago closed Twin Oaks into San Marcos, with a 2 hour wait to exit San Elijo Hills through the Town Square. Underground electric cable eliminates this very significant fire hazard. 2- EMF: Increased exposure is associated with leukemia and other pathologies. EMF is markedly decreased by burying electric cable underground. “FOR IMMEDIATE RELEASE An international panel of experts convened by the National Institute of Environmental Health Sciences reported to the institute today that electric and magnetic fields like those surrounding electric power lines should be regarded as a "possible human carcinogen. The epidemiological studies showed a slight increase in childhood leukemia risk from power line/residential exposures and an increase in chronic leukemia risk in adults in electricity-intensive industries.” 3. Aesthetics: Above ground power lines raise fire insurance costs or potentially result in fire insurance cancellation for homeowners. This negatively affects our home prices, not to mention that above ground electric wires are an eyesore.The above risks are anything but mitigated by above ground additional power lines. The risks stated above are markedly significant and should require an EIR, thus requiring the CPUC to consider the proposal, suggested but not acted upon by S D G & E, to	Your request for an EIR, preference for underground power lines, and concerns regarding wildfire, EMF, and aesthetics are acknowledged. Please see Master Responses 4, CEQA Process; 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Edward Mowry (cont.)	place new electric cables underground. Brought up at the meeting, construction projects for housing at Creek Side and toward Escondido, between the two substations in the proposal, will produce less mitigation difficulty, as well as a shorter direct line for the cables.	
Maureen Mowry	I just returned from a community meeting where we discussed the SDG&E San Marcos to Escondido Tie Line 6975 69kV Project, and I was deeply angered to find out that SDG&E has not considered putting these electrical wires underground, and instead have gone ahead with their proposal to run huge electrical poles and wires through San Elijo Hills. My husband and I moved to our current home in San Elijo Hills in November of 2001. One of the attributes of San Elijo Hills is that all the existing telephone and electrical wires are underground. In 2009 and 2010, SDG&E installed large electrical towers and wires along San Elijo Road. None of the citizens of San Elijo Hills were notified regarding this project. I am a native Californian, and I have watched over the years as the number of wildfires have increased. My husband and I have experienced numerous wildfires and evacuations since we moved here in 2001. The last fire in 2014 didn't reach our home because a DC 10 dumped its retardant just over our hill but our egress through Twin Oaks Road was cut off because of that fire, and we had only one way out. Why is this important? The recent wildfires in Northern California and Paradise, California point to above ground electrical lines as a source for these fires. Pacific Gas and Electric is now facing potential bankruptcy as a result of these findings. Homeowners in San Elijo Hills are facing problems getting fire insurance and reduced property values as a result of these electrical poles and wires placed behind some of our homes. The above mentioned plan would exacerbate these problems by placing more poles and wires in our community. One woman who spoke today mentioned that her house is worth $40,000 less because of the electrical pole placed just behind her back yard in 2009, and this plan would add more poles next to that existing one. In addition to above ground poles and wires as additional fire hazards, there is the asthetics of our neighborhood. As I mentioned above, all of our phone and electric wires are currently below ground. Why hasn't SDG&E done a study of the feasibility of underground installation. Why are we just hearing about this now? In conclusion, I ask that there be an Environmental Impact Report immediately done that addresses our concerns and a relook at placing these wires underground. Instead of running wires underground 5 miles to connect the power stations, SDG&E proposes to run them 12 miles above ground through our community. This project should not go through as presently projected. The members of San Elijo Community request that this project, which affects us personally, be placed underground.	Your request for an EIR, preference for underground power lines, and concerns regarding wildfire, insurance, property values, and aesthetics are acknowledged. Please see Master Response 4, CEQA Process; 2, Wildfire; 5, Non-CEQA Issues; and 1, Aesthetics.
Wei Mu	As a more than 9-year resident at San Elijo community, I and my family have always enjoyed living in this community. It's a Safe, tight and clean community. But if SDGE started building up more electrical power poles on the ground in our community, it will not be safe for my family and all the residents any more. It will be highly fire hazard and life-threatening. It's also impacting our health for exposing to these power lines. It's not just me but it's for our next generations. We are putting them in a very harmful way to live. Lots of insurance companies already refuse to provide home Insurance's for us because of these hazards, because they know it's high risk area. Also, the Paradise town was wiped out by the deadliest fire in the history due to power lines. So many innocent lives lost and people became homeless. Please, don't let another tragedy happen and let our children grow up be happy and healthy. Let those power lines be buried underground.	Your concerns regarding wildfire and human health are acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process.
Jeff Mucha	Please reconsider the route that the TL6975 will take through the San Elijo Hills and Rancho Dorado communities. If they must be installed, can these lines be installed underground through our communities? thank you.	Your preference for underground power lines is acknowledged. Please see Master Response 4, CEQA Process
Jennean Munro	I would like an EIR report	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Louanne Murawski	I am concerned about the impact the New proposed power lines will have on our beautiful community. I feel that below ground lines would be a much better option.	Your preference for underground power lines and concerns regarding aesthetics and wildfire are acknowledged. Please see Master Responses 1, Aesthetics and 4, CEQA Process.
Dennis Murphy	I do not have a view of the existing power lines you plan to build next to. However, I am against the visual blight of the power lines currently visible. All above ground lines should be buried for long term visual aesthetic's, safety concerns, and future property values. There will never be a time where it is less expensive to bury cables. Let's don't go back to a time where all power cables were installed above ground because we all know they are still there.	Your preference for underground power lines and concerns regarding aesthetics and property values are acknowledged. Please see Master Responses 1, Aesthetics; 4, CEQA Process; and 5, Non-CEQA Issues.
Lance Murray	Please conduct an EIR on SDG&E's project In San Elijo Hills, San Marcos.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Cristie Muscavitch	I strongly oppose the new power line plans through our community. I am a mother of two babies and do not want additional health risks associated with running more high voltage power lines through my neighborhood.	Your opposition to the proposed project and your concern regarding human health are acknowledged. Please see Master Response 3, EMF and Operational Noise.
Jeremy Nalwalker	As a San Elijo Hills home owner, it is extremely important to me and my family that you prepare an EIR so safer alternatives may examined. I do not want any more wild fire danger in my community than we already face. Please bury the power lines.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
Amber Narancich	I would like to request an EIR please.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Arman Nasseri	No power line	Your preference for underground power lines is acknowledged. Please see Master Response 4, CEQA Process
Shole Nasseri	no more power line	Your opposition to the proposed project and preference for underground power lines or another alternative is acknowledged. Please see Master Response 4, CEQA Process
Iliya Nechev	I am appalled at SDG&E's decision to expand the electrical lines by building new poles. Yes, they are an eyesore. But the real problem is that they are unsafe. Over and over and over again it's been shown that these power lines are the cause of huge fires. I live in San Elijo Hills, a community that could suffer catastrophic loss of life and property damage due to its unique location. If those power lines are indeed so badly needed they can be put underground. The same way every other civilized country does it.	Your preference for underground power lines and your concerns regarding wildfire and aesthetics area acknowledged. Please see Master Responses 4, CEQA Process; 2, Wildfire; and 1, Aesthetics.
Elizabeth Negri	Please provide an EIR on TL6975	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Charles Nelson	Have SDG&E, their insurer, or the PUC not learned from the numerous destructive fires which were the direct result of faulty overhead powerlines…the horse and buggy method of carrying electricity? How many people must lose their homes, their livelihoods, their life belongings, their lives before SDG&E changes its power delivering model and move such lines underground? And while they are at it…move the present lines underground along with the new ones…no matter the cost. What has been the cost to the people who lost everything due to the utility companies digging in their heels? Come on…what century are we in?	Your preference for underground power lines and your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire; and 4, CEQA Process. See Appendix B.2 for comment attachments.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Hope Nelson	Please direct SDG&E to perform an EIR to explore alternatives on TL6975 One would think we have learned a lesson after the devasting fires of the last few years. Adding additional power poles and lines creates added risk of fire. This is unacceptable in residential areas which will face gridlock if/when emergency evacuation is necessary. Please consider using the underground direct 5.4 mile route from substation to substation instead of overheading along a circuitous 12-plus mile route in sensitive communities and conservation areas	Your preference for underground power lines and concerns regarding wildfire and evacuation routes are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process. For all other concerns regarding wildlife refer to Section 3.4, Biological Resources in the Draft IS/MND.
Steve Nelson	This is in reference to TL6975, Our house sits directly behind where these towers will go, I would like you to request a EIR, Rancho Bernardo just got SDGE to remove these 200 foot towers. Lets get SDGE to put these underground and make it safe for all. I rather my rates go up $25 a month then heave a health and fire hazard in the canyon behind my house. Which many have lost insurance due to the fire hazard.These new towers will definitely not help that for others.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
Steven Nelson	Please put these under ground, There is enough evidence to support, These are not healthy to have so close to people.Please protect the people of our town and make them go underground	Your opposition to the proposed project and preference for underground power lines or another alternative is acknowledged. Your concern for human health is also acknowledged. Please see Master Responses 3, EMF and Operational Noise; and 4, CEQA Process.
Laura Ngo	I want an EIR. No more above ground Power Lines in San Elijo Hills.	Your preference for underground power lines or another alternative is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.
Melissa Nicolas	Dear CPUC, As a homeowner in San Elijo Hills (SEH) for the last 17 years, I am extremely concerned about the numerous negative effects adding another set of above ground power lines will have on our community and all of San Marcos. One of my biggest concerns is the increased risk of wildfires these power lines will bring. We already live in an extremely high wildfire prone area. So much so that we can barely find a company that will provide homeowner's insurance to protect us in case of a fire. Since living in San Elijo, we have been evacuated twice (October 2007 & May 2014) due to wildfires in the area, and we know that a major cause of wildfires is due to above ground power lines. We know this because we were affected by the preemptive power outage during the last Santa Ana wind event (November 2018). The power was shut off because SDG&E knew the high risk of fire due to downed power lines during high wind events, but yet more power lines will be added to an already high-risk fire area? So as a preventative measure our power will be shut off to decrease the risk? No, to decrease the risk other options must be looked at. We can't continue to decrease the risk after the fact with power outages and power line maintenance, all of which can not be relied on and have disruptive consequences for home owners in the area. Shutting off the power every time there are high winds completely puts the community in chaos, with traffic lights out, no power for refrigerators, freezers and lighting at night and more importantly no power for medical devices. Maintaining power lines by regular maintenance with helicopters adds a huge expense and disruption to daily life. Many of these powerlines are nearly in homeowner's backyards, and we don't need helicopters flying over our houses any more than we already do. I do not believe we can rely on SDG&E to properly maintain the power lines to prevent more fire risk. We need to be proactive and not mitigate the risk but eliminate it with other solutions such as undergrounding the power lines. Having a wildfire near your area is bad enough but having one close enough where you have to evacuate in SEH is a nightmare. I fear that if the fire is close enough to our home, we will not be able to evacuate. I've seen first hand the traffic situation when one traffic light is out in our town, so I can only imagine how bad it will be when full neighborhoods are trying to get out. If a fire starts due to one of the current power lines going down, it is very close to our home and very close to the one way out of SEH. If any roads get	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, insurance, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Melissa Nicolas (cont.)	shut down due to the fire then no one will be able to get out in time. SEH got a big taste of this during the May 2014 fire evacuation where residents spent hours trying to evacuate. There are other reasons, not just wildfires, that adding new powerlines will have a negative effect on our communities. I know that the power lines will decrease our property values. I have neighbors that have recently reappraised the value of their home and their home value has decrease by tens of thousands of dollars due to existence of the current power lines. These current power lines were not there when we moved in to SEH. When we moved in there were wooden power line poles, not nearly the size and unsightliness of the steel ones that exist currently. Imagine the decrease in value and aesthetics of our community if more power lines are added. Every time I enter SEH or walk the trails, I see these huge monstrosities that with this project with only get worse. I am a proud homeowner in SEH and proud community member of San Marcos. I have seen this city grow immensely in the many years we have been residents. I want to know that the city and neighborhood we chose to live in and continue to stay in is safe for myself and my family. Therefore, I urge you to look for a much better solution and consider other options along with researching more the effects adding more power lines will have on the communities surrounding them. I expect that more be done to protect our communities and consider their wellbeing by conducting analysis and research on other options. I am outraged that this has not already been done due to the huge negative impact this project will have. Therefore, I demand that the CPUPC conducts an Environmental Impact Report (EIR) and consider other options other than the above ground power lines being proposed. Melissa Nicolas 1547 Crescent Place San Marcos, CA 92078	
Jeanette Nolten-Horne	I want the report.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Aimee Norton	NO more power lines please and we need an EIR!!!!	Your preference for underground power lines or another alternative is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.
Cynthia Nosewicz	Myself and my family of 6 have been residents of San Elijo Hills for 9 years. As I'm sure every other resident of SEH has commented, this community has outgrown it's original plan. Our concern is the issue of fires completely devastating our area with little time for an escape with the many thousands of residents here in SEH. The infrastructure is not ideal for a quick and safe exit since more houses have been added since we moved in 9 years ago. Fire insurance policies are being canceled neighbors are informing us, and now additional power lines which could cause massive destruction in dry high winds, a very common occurrence here in SEH. Already our wildlife population has taken a hit because of excessive growth. Please consider burying these high ems lines. We want a safe community to reside in, not one that we have to worry every time the Santa Anas blow. Our youth deserve a healthy environment to study and play. Your public duty is to have an environmental study performed revealing the direct impact this project will have on our community and others in this project zone.	Your preference for underground power lines and your opposition to, and concerns regarding, the proposed project have been acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues. For all other concerns regarding wildlife/trails refer to Section 3.4, Biological Resources in the Draft IS/MND.
Jennifer Novak	Adding these would have aesthetic impact on our community AGAIN! We have been here since 2006 and have already lost property value because of it! So the cumulative impact because this is the second major increase in the size and number of transmission lines since 2009. With the addition of more equals more Loss in Property values; Wildfire dangers; Homeowners insurance, Biological impacts, Noise, etc.	Your concerns regarding property values are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; and 5, Non-CEQA Issues.
William Novak	For the sake of my family and friends through the neighborhood, please do not add Power Poles and Lines.	Your opposition to the proposed project and preference for underground power lines or another alternative is acknowledged.
Barbara Nyegaard	Please conduct an EIR on SDG&E's project. We do not want 100 foot poles in our community.	Your preference for underground power lines or another alternative is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Alisa Oblander	To Whom it May Concern, I live in Rancho Dorado, on a street where the row of power lines runs directly across the street from my house. I understand that the power is needed for the area but the towers and lines are extremely large and unsightly and they buzz. This lowers the value of our homes and makes it hard to sleep at night in the bedrooms at the front of the house hearing the noise. There is a beautiful park in the neighborhood and the awful power lines run right through part of it and we worry about fires starting from the brush in the park if the lines ever give off a spark. Since our neighborhood is already badly affected by the existing lines, it is preferable that new lines are installed elsewhere, as all of the above mentioned concerns will dramatically increase. Or at the very least, the lines are put underground. (which eliminates the unsightlyness and hopefully the buzzing noise) but won't do anything about the fire concern. The attached photo is from my front door with a power line directly in view. And up my street. Not pleasant and only to be made worse by more towers. Thank you for hearing the concerns. Regards, Alisa Oblander	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, operational noise, and property value are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues. See Appendix B.2 for comment attachments.
Carissa Odonnell	I would like to request an Environmental Impact Report to be done before approving the proposed SDG&E Project to replace, extend and double up on above ground power lines between San Marcos and Escondido. A thorough investigation into the different options for these power lines has not been done and since these proposed power lines will be going through an area that has a high risk of fires, I believe it is imperative that all options are considered. I have lived in San Elijo Hills for 15 years now and have been through 2 evacuations during this time due to fires that have threatened the area. It is scary and the traffic just getting to San Elijo Road from my house just off Questhaven is an absolute nightmare. It is not organized. People are in a panic, they don't listen to the order that communities are to leave to lessen traffic. They are just thinking about getting their own family out of there ASAP. It takes hours. To add to our risk of fires in our community by doubling the amount of lines coming through here and, in some cases, putting them even closer to homes, is absurd. They need to come up with a better solution. And turning off the power every time it's windy is not a good solution. There are many other reasons I don't think this proposal is a good idea, but in order to really know and understand the pros and cons of this proposal compared to other options, like underground power lines, an EIR needs to be done. Please don't let SDG&E just push this through without everyone doing their due diligence before making the decision that will affect the tens of thousands of people that call these communities home.	Your preference for underground power lines and concerns regarding wildfire and evacuation routes are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process
Michelle O'neill	If SDGE installs these new power lines as they wish, it will threaten the homes and lives of thousands. Southern California is already a high fire risk area, why would SDGE want to increase that risk? Due to recent California wildfires we are already having a harder time finding homeowners insurance or are paying significantly higher rates. I imagine that if these new towers were going right behind the homes of the executives pushing to place the new towers above ground, it wouldn't happen because they KNOW the cheaper option is not safe. SDGE needs to do the right thing and dig the new lines underground, or don't add anymore lines at all!!	Your preference for underground power lines and your concerns regarding wildfire and insurance are acknowledged. Please see Master Responses 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.
Kimberly Orellana	I would like an EIR please.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Mike Ortmeier	Please conduct an EIR on SDG&E's project	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Stacy Osborne	I've lived in the Rancho Carrillo for almost 13 years and one of the reasons I bought in this area is because of the open recreational area. With these new power lines our lovely trails will have more urban garbage. The new electric poles are at the least an eye sore and bring the value of all our homes in the area down. I know we have existing power lines but the thought of more is ridiculous. The lines need to be moved underground. SDG&E is going to need to think ahead and plan for the development in this are and bite the bullet and do it right. Don't pass the buck to the residents and make them lose equity in their homes.	Your concerns regarding aesthetics and property values are acknowledged. Please see Master Response 1, Aesthetics; and 4, CEQA Process.
Peter Osullivan	Adding power lines above ground pushes the cost to the affected neighborhoods in the form of decreased values for the homes. The right thing to do is allow ALL ratepayers to share the cost burden by providing underground construction. I understand the desire to reduce costs on the project - but the cost burden is clearly and unfairly taxing those homes and neighbors near the lines. While I am on the top of the hill - neighborhood values have a ripple affect, and we will have a reduction in our home value as a result. Let the shareholders or ratepayers share the impact - not our neighborhood. Thank you.	Your statement regarding property values, and your preference for underground power lines is acknowledged.
Andrew Otool	If there is a wildfire it will most likely travel from the east towards the west. In San Elijo Hills, there is only 1 evacuation route westbound. The high power lines being proposed would cross the evacuation route. In a high temperature fire, there is a risk that those high voltage power lines could fall and block the only evacuation route. Due to that risk, I request the CPUC to conduct a full Environmental Impact Report	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process
Alina O'tool	I strongly oppose the additional power lines that are to run through San Elijo Hills. The power lines should be underground in a wildfire area.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
Alina O'tool	We need an Environmental Impact Report for this project. Wildfires are a very significant risk in our community; we lived through a lot of them and we don't have enough evacuation routes. The risk of wildfires is growing with climate change and SDG&E knows it. Their adaptation strategy of turning off our power during strong wind has a huge negative impact on our community. SDG&E needs to adapt to the future and put electric lines underground. CPUC should defend the public interest, not SDG&E, and not put our lives in danger.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
John Overton	It's time to make public safety a priority and bury these powerlines. Start planning to bury all of them to keep us safe from fire and uninterrupted power supply.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process.
Karen Overton	We cannot afford any more aboveground power lines in San Elijo Hills! We live in the Acacia Neighborhood of SEH. We are on the same grid as an Elfin Forest section that has aboveground lines. Therefore, for safety of the residents, our power is shut off during high-risk hours/days. We understand the necessity because of recent discoveries of the risks; however, it is a huge impact on quality of life. Now that we know the high risk of aboveground wires, do the responsible thing and go underground. We know more now, so we change our thinking and ways of doing things. Second to high risk, these unsightly lines take down property values and present a health risk for residents of homes in proximity. I have seen firsthand that resales near SDG&E power lines take MUCH longer to resell. Thank you for your support in keeping SEH a quality and safe place to live!	underground, aesthetics, EMF,
Denise Owens	I oppose above ground power lines in San Elijo Hills.	Your preference for underground power lines is acknowledged. Please see Master Response 4, CEQA Process

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Susan Pack	We need an EIR before going forward with SDG&Es plan please. You have the power to do the right thing. Thank you, SFPack	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Kimberly Packard	We need an environmental impact report!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Susie Pagan	I would like an EIR (Environmental Impact Report. The health and safety of our community depend on it!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Freddi Pakier	Prepare an EIR so alternatives such as undergrounding can be considered that will significantly reduce the effects on the environment. It is worth the additional cost to not increase our wildfire risk, or to not destroy the aesthetics of our beautiful neighborhood, or to not cause millions of dollars to be lost in property values.	Your preference for underground power lines and concerns regarding wildfire, aesthetics, and property values are acknowledged. Please see Master Responses 1, Aesthetics, 2, Wildfires, 5, Non-CEQA Issues. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.
Freddi Pakier	Prepare an EIR so alternatives such as undergrounding can be considered that will significantly reduce the effects on the environment. It is worth the additional cost to not increase our wildfire risk, or to not destroy the aesthetics of our beautiful neighborhood, or to not cause millions of dollars to be lost in property values.	Your request for an EIR, preference for underground power lines and concerns regarding wildfire, aesthetics, and property values area acknowledged. Please see Master Responses 4, CEQA Process; 1, Aesthetics; 2, Wildfire; and 5, Non-CEQA Issues.
Jason Pang	I would strongly suggest an EIR so we can discuss other options. Overhead powerlines are not a sustainable solution for the future with the projected population growth in our state. Thank you, Jason Pang	Your preference for underground power lines, and request for an EIR, is acknowledged. Please see Master Response 4, CEQA Process
Camille Parsons	I'd like an EIR please.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Theresa Pasarnikar	I strongly disapprove of this project. After the wild fires we have had in these areas and the limited exits out of this community, it's a recipe for disaster. This area is densely populated, not to mention 2 public schools sit in the middle of the community with the 3rd at the top of the road. I cannon imagine evacuating these areas during a fire. Find another route!	Your opposition to the proposed project and your concern regarding wildfire and evacuation routes are acknowledged. Please see Master Response 2, Wildfire.
Diptesh Patel	This is the EXACT OPPOSITE of what we need to do to help every human, plant and animal. C'mon California…lead the way!	Your opposition to the proposed project is acknowledged.
Karla Patino	I am requesting that the above project be completed via underground means. My community would be very negatively impacted by the potential of fire/ aesthetics/ power outages during high winds and potential loss of life and property. There is not one resident that supports this project and it is our community / families and lives that this impacts.	Your preference for underground power lines and concerns regarding wildfire, aesthetics, power outages, and property value are acknowledged. Please see Master Responses 4, CEQA Process; 2, Wildfire; 1, Aesthetics; and 5, Non-CEQA Issues.
Andrew Patron	DO NOT install the above ground powerlines proposed construction by San Diego Gas and Electric's (SDG&E) San Marcos to Escondido TL6975 69kV Project. These powerlines would be a significant safety concern since most of the north and east county wildfires are caused by SDG&E's powerlines and their inability to properly maintain the infrastucture. They wouyld provide an unneccesary environmental impact through one of the few remaining natural corridors in north county. They would have a dramtic negative impact on the property values in San Elijo Hills and surrounding areas (and I promise you I will be more than willing to sign on to a class action lawsuit against SDG&E as well as anyone else involved if these do go through). There are shorter routes through with the powerlines could be routed and underground installation is an even better option. DO NOT PROCEED with the planned above ground route!!!! Sincerely, Andrew P Patron, Ph.D.	Your opposition to the proposed project and concerns regarding wildfire, wildlife, and property values. Please see Master Responses 2, Wildfire; and 5, Non-CEQA Issues. For concerns regarding natural corridors and wildlife refer to Section 3., Biological Resources in the Draft IS/MND.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Erika Patron	San Elijo is being bombarded by negative impacts. The decision makers simply don't live here and authentically don't care. This community has seen exponential growth and no infrastructure to support an evacuation. This community has seen two evacuations. The last evacuation took over 1 hour and 45 min to get to the Rancho Santa Fe rd. Just yesterday, a investigation found that PG&E are fully responsible for causing the fire in Paradise. People died, homes were lost, animals destroyed, hope is gone. Now SDG&E wants to increase our already unstable situation in San Marcos. They don't care about the welfare of the community because they don't live here. They care only about money, they don't listen about putting the lines underground. They don't want to acknowledge the medical issues that arise from electrical wires. They don't acknowledge that if there are high winds the grids get shut down. What about those with medical issues that rely on that grid. Athletically it is appalling, and disgusting to look at. I am a realtor; the property values will be destroyed. You will ruin a reputable master community of a tight community. I am disappointed about the plans. Consider putting underground. Save us from fire, from shutting down during wind, keep our kids safe from any future medical issues.	Your preference for underground power lines and concerns regarding wildfire, human health, aesthetics, and property values are acknowledged. Please see Master Responses 4, CEQA Process; 2, Wildfire; 3, EMF and Operational Noise; 1, Aesthetics; and 5, Non-CEQA Issues.
Erika Patron	San Elijo is being bombarded by negative impacts. The decision makers simply don't live here and authentically don't care. This community has seen exponential growth and no infrastructure to support an evacuation. This community has seen two evacuations. The last evacuation took over 1 hour and 45 min to get to the rancho Santa Fe rd. Just yesterday, a investigation found that PG&E are fully responsible for causing the fire in Paradise. People died, homes were lost, animals destroyed, hope is gone. Now SDG&E wants to increase our already unstable situation in San Marcos. They don't care about the welfare of the community because they don't live here. They care only about money, they don't listen about putting the lines underground. They don't want to acknowledge the medical issues that arise from electrical wires. They don't acknowledge that if there are high winds the grids get shut down. What about those with medical issues that rely on that grid. Athletically it is appalling, and disgusting to look at. I am a realtor; the property values will be destroyed. You will ruin a reputable master community of a tight community. I am disappointed about the plans. Consider putting underground. Save us from fire, from shutting down during wind, keep our kids safe from any future medical issues.	Your preference for underground power lines and concerns regarding wildfire and human health are acknowledged. Please see Master Responses 4, CEQA Process; 2, Wildfire; and 3, EMF and Operational Noise.
Barbara Sue Paxton	Please do an EIR!!!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Nigel Paxton	Please complete an EIR!! It seems SDGE wants to go the cheapest route and not the correct route, not only for the environment but for our property values and aesthetic impact on our community. Not to mention this is the second major increase in the size and number of transmission lines since 2009, leads to an increase in wildfire dangers (did you forget what happened in Northern CA??). Do the RIGHT thing!	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.
Domenica Pearl	Requesting an Environmental Impact Report.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Marc Pearson	I would like an EIR on the TL6975 69kV Project. The impact of downed power lines during a wind event causing wildfires is a real problem in CA. Thank You	Your concerns regarding wildfire is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 2, Wildfire; 3, and 4, CEQA Process.
Andrea Peddycord	We need an EIR for San elijo hills	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Cindy Penn	Dear CPUC commissioners, We are deeply concerned about the safety of our community and the existing and new threat caused by the power lines. Cal Fire investigations have concluded that the Camp fire in 2018, the deadliest fire in history, was caused by PG&E's electric power lines[1]. Long before the conclusion was made, PG&E declared bankruptcy protection last year. It is clear now that not only the town is destroyed, but there will have no money to	Your preference for underground power lines and your concerns regarding wildfire and insurance rates are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Cindy Penn (cont.)	rebuild. The whole community is completely ruined. Before the Camp fire, Cal Fire had concluded that 12 of the Northern California wild fires in 2017 were also caused by PG&E power lines[2]. How many of such tragedies need to happen before people realize that the safest place for power lines is under the ground? For the safety of the residents, the children and the future of California, shouldn't we make it a rule that all new power lines should be buried underground? Can't we start with the one we are building? And move the existing ones down once possible? In case SDG&E is arguing the alternative remedies, such as power blackout during hot and windy days. Last year, SDG&E blacked out the power two times with each lasting for a day or two. While this may be manageable for once or twice a year, it is clear that such incidents are on the rise. As the progression of global warming, the dry hot winds from the desert is certain to be stronger, last longer, and occur more frequent year after year. Soon we are going to expect week-long blackouts[3]. When will we say enough is enough? Shouldn't we act now before it is too late? Before more people loss their homes or even their life's? You have the power to stop this madness, please help us to do the right thing, so we, and you, can sleep better at night knowing you've done ther right thing!!! And talk about quality of life, because of the fires, not only the residents here have suffered physically and psychologically from the last fires and evacuations, now we are facing the devaluation of our homes and much higher insurance costs even if we could find that rare insurance provider who would still cover us. Let's work to bury the power lines underground now!!!! And become a hero to our community, and other communities around California by becoming an advocate for the right ways in building new powerlines-only build down underground!!! Best regards, Residents of San Elijah Hills Comumunity References: [1] https://www.nytimes.com/2019/05/15/business/pge-fire.html [2] https://sf.curbed.com/2018/6/8/17443508/santa-rose-napa-fire-wildfire-pge-report-findings [3] https://www.bloomberg.com/news/articles/2019-05-12/california-may-go-dark-this-summer-and-most-aren-t-ready	
Colleen & Tom Penn	Please conduct an EIR on SDG&E's project. When we first moved here our view from our backyard was beautiful with the ocean off to the west. Now you can see the large power lines that have since been put in. We do not need or want any further big projects in our neighborhood	Your concerns regarding aesthetics are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics. See Appendix B.2 for comment attachments.
Lauren Perez	We are fearful of the additional poles due to the health risks and environmental impacts. Please leave our beautiful town as is. No more poles!	Your opposition to the proposed project and preference for underground power lines or another alternative is acknowledged. Please see Master Response 4, CEQA Process.
Oscar Perez	These lines will put our families and the local environment at risk. Please no more power lines/poles.	Your opposition to the proposed project and preference for underground power lines or another alternative is acknowledged. Please see Master Response 4, CEQA Process.
Fred Pfister	There is no reason these lines cannot be undergrounded other than the choice of SDGE, who has a very suspect history with power lines. Please do a fully analysis and let's underground the lines.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Dave Phan	I would like to raise my concern with this new power line project. I have two children in my family and we live in rancho Dorado neighborhood. There is a lot of study indicating that power line can cause cancer and major health concern. As a parent, the last thing we want to do is to put our kids at risk and my kids can potentially get really sick because of the location of the home. I would really like cpuc to reconsider the decision, this will have a major impact on a lot of family, please consider to put thos powerline under ground	Your preference for underground power lines and concerns regarding human health are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 3, EMF and Operational Noise and 4, CEQA Process

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Ed Philbrick	The safety, visual and environmental impact is not a good prudent choice for my community and real estate values. The draw to this area is a safe community with vistas. All powerlines need to be undergrounded for fire safety.	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, and human health and safety are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; and 4, CEQA Process.
Tiffany Phillip	I'm currently renting in San Elijo Hills and we are looking to buy in the next year. Living near or under the power lines is an absolute deal breaker. We will never buy a home next to the power lines. This is a hazard to everyone living near SEH. Underground lines are the best option for our health and wildfire safety.	Your preference for underground power lines and concerns regarding wildfire and human health are acknowledged. Please see Master Responses 2, Wildfire, and Master Response 3, EMF and Operational Noise
Gregory Phillips	My wife and I moved to the Rancho Dorado neighborhood of San Marcos in 2006. Two of the issues we had to deal with in deciding to make that move were directly related to the power lines running behind our property: (1) the negative aesthetic impact of the lines and the (then) wooden poles supporting those lines, and (2) the increased wildfire risk inherent in their presence. Both of these issues were worsened in 2010 with an upgrade that included massive steel poles. The proposed plan takes yet another step in the wrong direction. If we were facing the same decision today that we were facing in 2006, we would probably choose to look elsewhere. We think it is critical that an Environmental Impact Report be conducted for this project.	Your preference for underground power lines and concerns regarding aesthetics and wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; and 4, CEQA Process.
Paulo Pinto	Please conduct an EIR on SDG&E's project.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Alexander Pistone	Please prepare an EIR so viable alternatives can be thoroughly considered.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Justin Pitcairn	Please conduct an EIR on SDG&E's project Hello, I am simple writing to express my frustration with the lack of common sense in regards to this project. I am requesting an EIR on the SDG&E's project. I have lived in San Elijo Hills at my current home since 2005. From my backyard I can now visible see Fourteen(14) Power Poles. The landscape behind my house has drastically changed since the wooden poles where replaced. My homeowners insurance continues to rise because of the fire danger and I have looked into other insurance companies and they simple do not cover my area because of the dense vegetation behind my house. The addition of more poles will only add to the visual unsightliness of San Marcos as well as create more chances for preventable fires. I would also like to comment that the addition of a 60' higher power pole running down the San Marcos blvd. corridor is going to be unsightly and again for the life of me I can't understand why the city is not putting a complete stop to this nonsense. We should be beautifying the city, not adding to the overall unsightliness. The City of San Diego is currently spending Millions to remove power lines and bury them underground within the La Jolla/Bird Rock area and here we are looking to add Poles. I am 100% against this project. Photograph 1 - Power Lines - Panorama showing 14 Power Poles visible from my backyard. One power line cuts right through the horizon line leading out to the Pacific Ocean and San Clemente Island visible on a clear day. Yes this impacts my life!!!! Photograph 2 - Power Lines II - shows 6 Power Poles visible while sitting in my backyard. The Real Concern is not the visible detraction but the lack of exit points in San Elijo Hills when there is a fire. 5 years ago during that fire we only had one exit point and that was San Elijo Road West bound towards the ocean. It took hours to exit because it is a 2 lane road. Honestly we should be requiring SDG&E to remove the existing poles and put them underground. Listening to the local radio stations we are inundated with adds telling us to prepare for the brown outs. SDG&E knows it's going to happen. So why aren't we doing anything about this.	Your preference for underground power lines and your opposition to, and concerns regarding, the proposed project have been acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Justin Pitcairn (cont.)	Stop the insanity and use common sense!!! Thanks Justin Pitcairn	
Dmitry Pokholok	I am against this project, I am concerned about the electromagnetic field impact on our kids.	Your concerns regarding EMF are acknowledged. Please see Master Response 3, EMF and Operational Noise.
Alexa Poole	Please prepare an EIR so viable alternatives can be thoroughly considered"	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
David Porter	I am concerned about additional power line and poles being considered in the San Elijo area. I am concerned withe the impact to property values in the area. Power lines are a blight on the natural landscape. In addition to the aesthetics, which has been damaged already by power lines in the area, I am concerned about potential wildfire risks. I would request that am environmental impact study be conducted to evaluate alternatives (i.e., underground routing) that to significantly reduce the effects on the environment. It is worth the additional cost to not increase our wildfire risk, or to not destroy the aesthetics and to preclude the loss millions of dollars to be lost in property values."	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, and property value are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.
Robin Porter	Please prepare an EIR so viable alternatives can be thoroughly considered.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Ramona Powell	Please do not allow the additional power lines to run through San Elijo Hills! In the last fire and evacuation in 2014, prior to the additional condos, shops, homes, K-8 and 700 home master plan Rancho Tesoro were built (!!!), my daughter and I were caught in bumper to bumper evacuation traffic on San Elijo road, with fire quickly raging up double peak. We were genuinely afraid for our lives and since then many many people have been added to this community. These power lines will be devastating to our community and will create a fire risk that may cost many lives. This is not the right community as it has not had a well thought out infrastructure for all the population to begin with. These power lines present a huge liability to whoever decides to build them and will ultimately prove to be the undoing of the power company when a lawsuit similar to the ones PGE is facing, happens.	Your opposition to the proposed project and concerns regarding wildfire are acknowledged. Please see Master Responses 4, CEQA Process and 2, Wildfire.
Brent Presley	Myself and my family are requesting a Environmental Impact Report for the proposed TL6975 project. This is a high-risk fire zone and we would like to see these power lines put below-ground, not above ground. Sincerely, Brent Presley, M.D., Ph.D.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process
Jaime Presley	Please do an EIR. We do not need more overhead power lines! These are a huge fire risk, for San Elijo Hills. There is no way that during a fire, we could safely and quickly evacuate all the residents. Not only would these power lines lower home values, but safety must be of utmost concern. This area is a huge fire risk, overhead power lines would increase an already high risk.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process
Donna Priano-English	There needs to be an Environmental Impact Report. Consider the safety of your residents	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Kathleen And Jeff Primes	As residents of San Elijo Hills in San Marcos, we are requesting that the California Public Utilities Commission (CPUC) prepare an Environmental Impact Report (EIR) for the SDG&E TL6975 project.	Your request for an EIR is acknowledged.
Sandra Primosch	I would like to comment of the TL6975 project. The draft IS/MND report submitted to the CPUC is incomplete and inadequate. The report claims that the addition of the new line would not have significant aesthetic impact. What the report fails to consider is the accumulated impact to the aesthetics of past projects and this one. Nineteen years ago when we moved into our community only a single set of wooden poles and transmission lines were installed. These poles were about half the height on the	Your preference for underground power lines and your concerns regarding aesthetics are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 1, Aesthetics, and 4, CEQA Process

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Sandra Primosch (cont.)	current lines. About 10 years later the current hugemongous towers were erected. That has drastically changed the look of the neighborhood. The current proposal would add yet another set of towers and lines. The report submitted to CPUC does not address the cumulative significant effect of both projects. A full Environmental Impact Report (EIR) needs to be completed to accurately capture the accumulated effect of all these towers on the aesthetics of the community. An EIR will show that the accumulated effect of all the tower will have a significant aesthetic impact and will need to be mitigated. The best way to mitigate the significant aesthetic impact will be to underground the proposed transmission lines. SDG&E researched and developed a plan to underground but did not submit that possibility in their report to the CPUC because their initial report did not take into consideration the need to mitigate because they incorrectly did not find a significant aesthetic impact. For the PUC to simply accept the incomplete IS/MND draft is not in the best interest of the customers of SDG&E and residents affected by this project. Please do not allow this project to proceed without an EIR which addresses the aesthetics	
Tom Primosch	CPUC, I am writing this comment to express my concerns over the proposed TL6975 project. The proposal by SDG&E does not properly address the significance of wildfires risk from the proposed power lines. The route for the proposed powers lines is a significant risk for wildfire. The line would run through areas of brush and vegetation that have burned before. The area near White Sands Drive had a previous fire sparked by a Mylar ballon. The area in San Elijo was completely evacuated in the most recent fire in that area. The recent tragedy in Paradise, CA shows that overhead power lines cause risk of significant fires and great loss of property and life. There is no way the risk can be mitigated. SDG&E did not submit a shorter underground route for consideration by CPUC due to what they claim is its cost. The paradise fire and the PG&E bankruptcy shows that a single fire event sparked by overhead power lines will be much larger financial impact than the installation cost of undergrounding the powelines. A recent article in LA Times has showed that PG&E will be under grounding the power lines in Paradise (https://www.latimes.com/local/lanow/la-me-ln-pge-to-build-underground-power-lines-20190523-story.html). PG&E has realized the risk is significant in fire prone areas. Without an EIR (Environmental Impact Report) there will be no consideration of any undergrounding of these 69 kV transmission lines. Given the guilt electrical providers have in recent wildfire losses to property and life, not seriously considering undergrounding, let alone not considering it at all, which is the current situation if the CPUC just approves the draft IS/MND is not in the best interest of SDG&E's customers. I ask that CPUC demand an EIR be completed so the risk of wildfire danger can be properly gauged. Tom Primosch	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
Anthony R Proni	Please conduct an EIR on SDG&E's project	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
David Proulx	Please prepare an EIR so viable alternatives can be thoroughly considered	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Mckayla Proulx	Please prepare an EIR so viable alternatives can be thoroughly considered	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Carre Provance	Our neighborhood is concentrated with little options for evacuation. I am very concerned that additional power lines could contribute to potential wildfires among other reasons. During the last fire it was beyond challenging to leave my community before the additional housing was even built. Thank you. Carre Provance	Your concerns regarding wildfire and evacuation routes are acknowledged. Please see Master Response 2, Wildfire.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Greg Provance	Hello. I would like to express my deep concern for this project. I am a homeowner in San Marcos and have been since 2009. In my time as a resident, this would mark the second major increase in the size and number of transmission lines in our area. In addition to this, my neighbors and I have serious concerns over wildfires, decreasing property values and the aesthetic impact on our community, which is part of what makes San Elijo Hills a sought-after environment. PLEASE vote NO on this irresponsible legislation.	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.
Stephanie Purvis	I would like to see an environmental impact report regarding the proposed above ground power lines in San Elijo Hills.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Dana Pustinger	As residents of San Marcos since 2005, we ask the CPUC to deny any permit to build overhead transmission lines in San Elijo Hills in San Marcos, California or at the minimum to require a full Environmental Impact Report before any decision is made. If above power lines are placed as proposed by the SDG&E, property values will decrease in San Elijo Hills. No one can deny that the towers and lines are ugly and dangerous. So, what does that mean for the City of San Marcos? A loss of property values in San Elijo Hills (SEH) one of the highest valued areas in the City of San Marcos, means LOWER PROPERTY TAX revenue for City Government. The City of San Diego has adopted a Utilities Undergrounding Program with target dates for SDG&E to move transmission lines underground. Their official Plan expects to complete the process by 2022. Why then is SDG&E opposing underground lines and inflating the costs of underground verses above ground? Why should new transmission lines ever be permitted to be above ground in populated areas. The proposed new lines will run through heavy brush and ground cover of nearly 2,000 acres posing a substantial risk of fire to the approximately 10,000 people living in the area. We have experienced two devastating fire evacuations, in 2007 and 2014. Those fires cost millions of dollars in damage. The Cocos fire evacuation offers a snapshot of the problem since the fires engulfed San Elijo Road to the east meaning that the only escape route was to the west. Even using all the lanes in both directions, it took my family over four hours to Rancho Santa Fe Road from Questhaven. The wildfire risks now are no less than they were in 2007. Cal Fire's Official Wildland Fire Hazard Severity Zone map has not been officially updated since 2007. No update is expected for years. However, the 2007 map shows San Elijo Hills completely surrounded by the Highest Risk fire areas. Buildout of SEH has only added more housing units. (See: http://www.fire.ca.gov/…/fhsz…/FHSZ/san_diego/San_Marcos.pdf) Couple that with the other developments in the area and you have more people and more cars with no more evacuation routes. Traffic from nearby communities will be using San Elijo Blvd./Twin Oaks Valley Road to escape fires. Consider the limited fire evacuation routes available to developments such as Tesoro, Oak Creek Ranch, Elfin Forest and the Harmony Grove Villages (HGV). For example, The HGV project has led to litigation by Elfin Forest and Harmony Grove residents over the lack of adequate fire escape routes and high density, over 800 housing units. Residents threatened by fire in HGV are likely to use Harmony Grove Rd. which flows into Elfin Forest Road and out to already crowded San Elijo Blvd., packed with SEH residents also trying to evacuate SEH. Driving from SEH to HGV on a normal day takes over 15 minutes, traveling 7.4 miles through dense brush and undergrowth on a winding road in an Extremely High Fire Area. Most single-family homes in SEH are constructed with 2-3 car garages, so estimating 2 cars per household that's at least 7,000 cars in the community. San Elijo Road with an average daily traffic count of approximately 22,500 cars per day in 2018 and estimated to grow to approximately 32,000 cars per day by 2020 (according to Newmark, Knight, Frank, Developers of SEH Retail Center) demonstrates that this road, the primary evacuation route for SEH is already crowded with commuters, who will likely be using the road during an evacuation as well. When you add this flow to the downstream cars from neighboring communities, any evacuation will be very time consuming and probably lead to panic in the community. SDG&E estimates that their project will be complete in 2021. If vehicle use of San Elijo Blvd. continues at the current rate of increase the number of cars using the road then will near 41,000. This is folly and likely to lead to a disaster such as the Paradise fire of 2018, where 85 people died of a population of approximately 26,000, and thousands of homes burned. Their town had two evacuation	Your preference for underground power lines, request for an EIR, and concerns regarding wildfire. property values, and insurance are acknowledged. Please see Master Responses 4, CEQA Process; 5, Non-CEQA Issues; and 2, Wildfire.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Dana Pustinger (cont.)	routes. We also have two routes, San Elijo Blvd./Twin Oaks Valley Rd. and Elfin Forest Rd./Harmony Grove. History tells us that the fires are likely come from either south or east of SEH. In Reality there is Only One Escape Route from SHE; San Elijo Rd. to the West! The total population of persons using that route at buildout of all adjacent communities will be approximately 26,000, about the same as Paradise, CA. At a similar death rate, are we willing to take 85 lives to let SDG&E save a little money? At the very minimum there should be a reality based full Environmental Impact Report (EIR) be prepared before the PUC considers approving SDG&E's plan. Don't count on SDG&E to help pay for these costs, they will just follow PG&E and declare bankruptcy. Please make SDG&E accountable for what they propose. Find a route for these lines, away from populated and high-risk fire areas, or mandate that SDG&E put these lines underground.	
Lisa Rababy	Please do not increase the chances of even more wildfires and poor health for the residents of this area. With weather changes and increased rain, we are now at even a greater risk of devestating fires. All we can do to reduce that risk is worth the intitial cost as it would greatly lessen repair and rebuilding from fires. Not only do fires take homes and lives from people, but release dangerous toxins into the air we breathe and the water we drink. Put a stop to this now. Thank uou	Your concerns regarding wildfire and human health are acknowledged. Please see Master Response 2, Wildfire.
Narissa Ramachandran	1. More haste = less speed. Evaluate and plan. It's only a matter of time before there is some kind of class action brought against your company. 2. Plan for the long term instead of the immediate future. The horizon might tend to look a bit different. 3. Do the right thing, it'll be ok. Best, Narissa	Your opposition to the proposed project is acknowledged.
Angela Rankin	I want the EIR aka Environmental impact report	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Mark Rasmussen	Bury the lines.You KNOW the right thing to do	Your preference for underground power lines or another alternative is acknowledged. Please see Master Response 4, CEQA Process
Mary Rasmussen	Bury the lines,before you bury the people. Do it now don't wait until its mandated and you take another 50 years	Your preference for underground power lines or another alternative is acknowledged. Please see Master Response 4, CEQA Process
Greg Rassatt	TL6975 We purchased our home on White Sands Drive in 2002. At that time the small wooden power line poles installed in the canyon behind our home were barely visible. In 2010, however, a huge set of metal power line poles replaced these small wooden poles hence negatively changing the aesthetic view of our backyard forever. We had no opportunity to comment on these huge poles prior to 2010. Instead our property value was diminished and the chance of fire increased. The new proposal from SDG&E is totally unacceptable. We Demand an Environmental Impact Report (EIR) be conducted. We need an in-depth analysis of legitimate alternative routes such as a direct 5.25-mile underground route rather than the proposed 12 mile circuitous above-ground route. In addition to an EIR we want SDG&E to bury the existing power line poles installed in 2010 that are currently behind our home. Overall our concerns include: — Wildfire risk due to additional above ground power lines — Power outages — Evacuation routes — Declining property values due to these huge poles in the vicinity of our home — Impact on scenic and hiking trails — Impact on homeowners insurance — EMFs due to above ground lines in vicinity of our home	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, human health, insurance, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Greg Rassatt (cont.)	— Noise — Aesthetics In summary, please re-evaluate the impact of above ground power lines from the perspective of what happened in the fires in Northern California. Conduct an EIR to do the right thing. Last, bury the power lines installed in 2010. Thank you Greg Rassatt	
Heidi Rassatt	My husband and I purchased our home on White Sands Drive in 2002. At that time the small wooden power line poles installed in the canyon behind our home were barely visible. In 2010, however, a huge set of metal power line poles replaced these small wooden poles hence negatively changing the aesthetic view of our backyard forever. We had no opportunity to comment on these huge poles prior to 2010. Instead our property value was diminished and the chance of fire increased. The new proposal from SDG&E is totally unacceptable. We Demand an Environmental Impact Report (EIR) be conducted. We need an in-depth analysis of legitimate alternative routes such as a direct 5.25-mile underground route rather than the proposed 12 mile circuitous above-ground route. In addition to an EIR we want SDG&E to bury the existing power line poles installed in 2010 that are currently behind our home. Thank you Heidi Rassatt	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.
Darla Reagin	"I want an EIR on TL6975"!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Andrea Rebis	Please stop the power lines !!! Huge negative impact in our Community!!!!!	Your opposition to the proposed project and preference for underground power lines or another alternative is acknowledged. Please see Master Response 4, CEQA Process.
Jeff Rector	The conclusion of the Draft Initial Study that there will be no significant impacts because of the mitigation measures taken by the applicant is unsupported by the facts considered and unfairly ignores the concerns of nearly all San Elijo Hills community residents about the negative impact on views. This community was built to have a rural feel and we have maintained that. These massive new power lines are of questionable value to north county ratepayers who prefer distributed renewable energy to energy produced by centralized fossil fuel plants, but they significantly negatively affect views and well preserved natural characteristics of the community. A more thorough environmental review that listens to our concerns about views and explores practical mitigation measures that address visual impact must be made as a condition to environmental approvals.	Your preference for alternatives and concerns regarding aesthetics and community character are acknowledged. Please see Master Responses 1, Aesthetics and 5, Non-CEQA Issues.
Nancy Reed	A full EIR is necessary to asses this huge projects affects.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Lindsay Reese	If we add power lines to this area, which is already a high fire zone, they should go underground. There are only 2 insurance companies that will insure us (homeowners) because of the high fire zone, one is USAA for military only. So that leaves us with one. SDGE turns off our power for a day at a time because of danger when high winds - so put these underground! Don't add more above ground and still cut power, we all know they will. Make SDGE invest the money to make our power supply safe. After all we pay some of the highest rates in the country for our power. They can afford it. Don't let them shift the cost on to home owners (via higher insurance premiums or worse yet our homes burning down). This doesn't even take into account the decrease to our property values from these ugly power lines or the health costs.	Your preference for underground power lines and concerns regarding wildfire, insurance, property value, aesthetics, and human health are acknowledged. Please see Master Responses 4, CEQA Process; 2, Wildfire; 5, Non-CEQA Issues; 1, Aesthetics; and 3, EMF and Operational Noise.
Dami Rejda	I want an EIR on TL6975	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Ginger Relyea	No above ground powerlines in our community. We are paying a premium in property taxes in order to keep our community attractive/appealing, healthy and safe. This project will impact health and resale values. No above ground powerlines!	Your preference for underground power lines and concerns regarding aesthetics, human health, and property values are acknowledged. Please see Master Responses 1, Aesthetics; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.
Suzy Reschke	Please conduct an EIR on SDG&E's project.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Racheal Rhoades	The power lines should be put underground. They should not be draped across our beautiful landscape. It's not only an eye sore if the lines were to be put up, but could effect our community in multiple negative ways- drop in housing prices, health hazard.	Your opposition to, and concerns regarding, the proposed project have been acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues
Jeff Riba	Please conduct an EIR. I request these lines to be buried underground	Your preference for underground power lines or another alternative is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.
Tommy Rice	I moved into this neighborhood a little over a year ago now. While I did not like the look of the power lines right outside my house we decided the house and area were too nice to pass up. We hear the humming from the current power lines now, I can't imagine what it would be like if the amount lines were to double. We are requesting that you conduct an EIR to explore alternative solutions and do not ignore the cumulative impact of adding these power lines. Please reconsider this and protect our community.	Your concerns regarding aesthetics are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 1, Aesthetics, and 4, CEQA Process.
Douglas Richards	From the Washington Post: "Fire officials concluded Wednesday that equipment operated by Pacific Gas & Electric Co. caused the most destructive wildfire in California's history, increasing pressure on a utility company already facing billions in liability claims." This will be in your future if you add aboveground power lines. We need you to bury these lines, and are willing to pay more for you to do it. We're trapped up her on San Elijo Hills, with only one route out of here. A fire will wipe out hundreds of millions of luxury homes and kill any number of people. Instead of adding lines, you should bury the ones already here, but that's a topic for another time. In short, the lines will be ugly, will lower property values, will generate radiation, and most critically, will represent an added fire hazard. Given there are very limited ways to evacuate San Elijo by car, this is alarming. Basically, we're all fish in a barrel and SDG&E wants to throw a plugged-in toaster into the water. During a recent meeting, passionate, emotional residents had the following things they touched upon: - Homes that have burned down due to transformer sparks - Homes that are virtually unsalable because giant Godzilla tripods appeared just outside of the owner's yard one day - Inability to get fire insurance - Destruction of views, resulting in reduced home value - Increased radiation (including near schools) - Panicked evacuations during previous fire emergencies that clogged roads and caused absolute standstills and this was before the massive increase in population density we've experienced in the area - Cost savings to SDG&E to bury the lines now, and avoid the pricey lawsuits sure to come when we all get wiped out, and the few survivors sue the power company. (A little morbid, and horrific, but an actual argument that was made at least twice).	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, human health, insurance, and property value are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Kelly Richards	We don't need more above ground utility lines to increase fire danger and lower property values. SDGE can put lines underground but they seem to be looking at the bottom line for them…cost. They don't live here so why bother to consider the community. Please listen to the people who live here. Request an EIR to investigate the undergrounding of utility lines.	Your concerns regarding wildfire and property values are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 5, Non-CEQA Issues.
Stephanie Richards	I want an EIR on TL6975	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Adam Riffe	Please consider performing an EIR to minimize the impact on my neighborhood. The proposal as it is currently designed will have a lasting negative impact on Property Values, availability of affordable homeowners insurance and multiple markets, due to increased fire danger risk, and potential health concerns for residents of our community.	Your preference for underground power lines and your concerns regarding wildfire, human health, insurance, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.
Carol Riffe	Please do an EIR (environmental impact report). We have so many beautiful wildlife here. Please do an EMF testing and reports that can impact our small children I heard that there's an underground project in Rancho Bernardo. Why can't we do the same here, where sdg&e is converting above ground lines to underground. We were here for the cocos fire 4 yrs ago. I had to pack my 3 yo child, dog, and our belongings and sit in 90 min traffic just to get out of san elijo hills. We've lived in san marcos for 10 years now. Our hard earned money, value of our home and property will be impacted. This area was so beautiful when we moved here.	Your request for an EIR, preference for underground power lines, and concerns regarding wildlife, human health, wildfire, and property values are acknowledged. Please see Master Responses 4, CEQA Process; 2, Wildfire; 3, EMF and Operational Noise; and 5, Non-CEQA Issues. For all other concerns regarding wildlife refer to Section 3.4, Biological Resources in the Draft IS/MND.
Gary Riley	More of these posts seem a bad idea. Please do an Environmental Impact study at least. I already live fairly close to the current polls. I do not need more. There are other options. Please explore those more and let them be scene by the public side by side.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process
Amy Riviere	As residents in the San Elijo community, we need an EIR before the new power lines are approved. We believe above ground power lines will impact the safety of the community and impact the value of our homes.	Your preference for underground power lines or another alternative is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process
Kristi Roehm	As a homeowner in San Elijo Hills, I deserve a copy of the EIR. Our safety is being jeopardized	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Maureen Rogow	I would like an environmental impact report to be completed, as well as a fire/escape assessment for our neighborhood of San Elijo Hills.	Your concerns regarding wildfire and human safety are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire, and 4, CEQA Process.
Scott Rogow	I would like a complete environmental impact report completed on this power line proposal.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
William Rohr	I am concerned about additional overhead power lines in our community, with the potential negative impact on on our lives, reduced home prices and the overall look of power lines as you enter Our community. Under ground lines would not impact the visual landscape. Please conduct an EIR on SDG&E project! Thank you for the opportunity to comment on this project and it's impact on our community! Bill Rohr	Your preference for underground power lines and your concerns regarding aesthetics are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 1, Aesthetics, and 4, CEQA Process
Jim Rooks	A thorough study ("EIR") related to the potential health hazards for those living near the new proposed power lines needs to be done before proceeding with this project.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Donna Rosenstock	I urge you to bury all future and existing power lines between San Marcos to Escondidio. We have learned the cost to life and wellness of overhead lines is not worth a few dollars in savings. We must bury the lines to prevent wildfires, EMF emissions that affect humans and animals, etc. Not to mention their ugliness and devaluation to property values. No one wants to live near these lines. We don't even want to walk under them. The emmissions are so powerful they make our auto radio hum when we pass under them. The CPUC needs to be strong and insist safety come before profit.	Your preference for underground power lines and your opposition to, and concerns regarding, the proposed project have been acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues
Susanne Rossler	I am originally from Europe where power lines are underground. Not only does this not impact the views, but it is healthier for the people living nearby. We, as residents of the community, ask you to please mandate an environmental impact statement - thank you!	Your preference for underground power lines and your concerns regarding aesthetics and human health are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 1, Aesthetics; 3, EMF and Operational Noise; and 4, CEQA Process.
Steven Rotz	Please conduct an EIR on SDG&E's project.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Jennifer Russel	As a 18 year resident of San Elijo Hills I urge you to conduct an EIR on SDG&E project. We have already evacuated twice and the force with which the Santa Ana's blow through our community is reckless and without warning. In fact, we had to replace a fence with a solid wall within two years because the strength of the winds kept blowing the fence down.	Your request for an EIR and concerns regarding wildfire are acknowledged. Please see Master Responses 4, CEQA Process and 2, Wildfire.
Charles Russell	Please have SDG&E place the power lines under ground! These lines during an earthquake would block our only access out of our community. By adding new lines in the already fire prone area, will increase our inability to leave safely and will cause human elimination due to the fire valley corridor that in gulfs our community. Place these lines underground our roadways. Thanks	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process
Jon Ruth	These power lines belong under ground! Please do not ruin our neighborhood!	Your preference for underground power lines is acknowledged. Please see Master Response 4, CEQA Process.
Kristin Salazar	The TL6975 69kV project MUST NOT MOVE FORWARD. I have lived in San Diego my whole life, 46 years. I have lived in San Elijo Hills for 19 years and have been evacuated twice. The first time was in the middle of the night, we had no time to pack up, we grabbed our three kids, 3 dogs and left not knowing if we would ever see our house again. The second time was in the late afternoon. We had heard it was taking people over two hours to go just a few miles so we waited it out at home. We made the choice that we would rather plunge into our neighbors pool and hopefully survive then be trapped in our car with no where to go while fire burned us alive. Yes, that is our sad reality. After about 3 hours the roads cleared and we were able to leave. The towers that were built just a few years ago are directly behind our house, we had no say at the time. They have already decreased our home value, become a hideous eye sore and have create an added fire hazard, endangering the lives of all of us who live here. Let's not forget the health risks involved. A Environmental Impact Report for this project MUST HAPPEN! The risk of wildfires is growing with climate change and SDG&E knows it. Their climate adaptation strategy (UCSD Climate Summit) of turning off our power during strong wind has a huge negative impact on our community and is not sufficient; power lines can cause fires even without Santa Ana winds. SDG&E needs to adapt to the changing environment and put electric lines underground. CPUC should defend the public interest, not SDG&E's. If CPUC approves the current project you are setting up this community for a huge disaster. PEOPLE'S LIVES MATTER	Your preference for underground power lines and your opposition to, and concerns regarding, the proposed project have been acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues
Ray Salazar	Please prepare an EIR so viable alternatives can be thoroughly considered.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Kimberly Salpietra	How about an EIR before proceeding. We have many homes and much wildlife that could be very negatively impacted.	Your concerns regarding wildfire is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 2, Wildfire, and 4, CEQA Process. For all other concerns regarding wildlife refer to Section 3.4, Biological Resources in the Draft IS/MND.
Richard Salpietra	Please prepare an EIR so viable alternatives can be thoroughly considered	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Jamie Salter	I lost my home of 18 years in the 2003 Cedar Fire. Since that time, we've evacuated our other homes 3 times. While I learned resiliency from our experience, the loss is still there and will also be. All of my childhood memories - photos before digital backup, family heirlooms, my yearbooks/Letterman jacket, our pet were all lost… The fact that CPUC and SDG&E are considering adding an additional fire-danger to our special community is heartbreaking. I have turned my personal loss into a "pay it forward" experience where we volunteer to help others that have recently experienced loss. We've helped nearly 3000 fire victims of the Witch Creek Fire, Thomas Fire, Lilac Fire, Sonoma Fire, and Woolsey Fire… Please don't increase fire danger in my community. Instead, I encourage you to find a way to also help keep others safe from fire danger. https://www.facebook.com/OutOfTheAshesBox/	Your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire. See Appendix B.2 for comment attachments.
Steven Salter	With the changing climate and fire season moving from a short period of time in the late fall to a year round concern, more high voltage, above-ground power lines should not even be an option. It is flat out neglectful to add additional lines within such close proximity to residential communities. Rather than investing in updating current hardware and expanding above-ground power lines, SDG&E should be exploring the feasibility of changing the existing above-ground lines to underground and while doing-so, they can add a new line underground at the same time. We all know that the areas surrounding San Elijo Hills are vulnerable to fire and that SDG&E has previously been found responsible for wildfires related to high winds and failure to cut power. Please do not allow this project to move forward.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
Albert Daniel Sanchez	As a resident impacted by this project I demand an environmental impact report be completed to evaluate the negative impact on my community.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Christine Sanchez	We do not want anymore power lines in our neighborhood especially above ground. We are afraid for our families, we are afraid for our neighbors, we are afraid for our children. Enough is enough! PLEASE STOP - NO MORE POWER LINES IN OUR NEIGHBORHOODS! Do the RIGHT thing!	Your opposition to the proposed project and preference for underground power lines or another alternative is acknowledged. Please see Master Response 4, CEQA Process.
Denise Sanchez	As an impacted resident from the proposed CPUC power lines that will run through San Elijo Hills, I am requesting a Environmental Impact Report be fully completed. Failure to do so would be a reckless omission by any decision making body that would consider the proposed powerlines and disregard the health, safety and environmental impacts on the residents & ecological community surrounding the proposed locations.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Gerald Sanchez	I failed to mention in my last submission that I would like to have an EIR completed to force consideration of more favorable options. Jerry	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Gerald Sanchez	I am very concerned with above ground lines being installed in a fire prone area of San Diego County. We experienced the 2003 and 2007 fires when living in Rancho Penasquitos. We were evacuated during the 2007 fire. Following the 2007 fire our USAA house insurance was dropped. The ONLY organization we could find to insure us was Lloyd's of London - a very expensive policy. We eventually regained USAA insurance with a lot of work on our part. USAA was the only company willing to reconsider their position of not insuring our area of town. All other companies we contacted were not willing to reconsider their new policy. San Elijo Hills (SEH) is well documented as being a fire prone area. Installing lines could not only increase the risk of fire, it could decrease house value and limit insurance options. From a novice's point of view, why can't SDGE coordinate their project with other San Marcos projects and put their lines underground? Especially since they recently reported record profits? I strongly feel that SDGE is taking the easy way out while on the backs of SEH residents and their future.	Your preference for underground power lines and concerns regarding wildfire, insurance, and property value are acknowledged. Please see Master Responses 4, CEQA Process; 2, Wildfire; and 5, Non-CEQA Issues.
Vicki Sanchez	Please require an EIR so alternative solutions can be honestly evaluated. Adding more power poles in a fire prone region is not a good idea from any perspective. Doing so will hurt residents, the San Elijo Hills community, and the city of San Marcos. All of this to make SDGE's project easier and more profitable for the shareholders. Not good!	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process
Justin Sautner	My name is Justin Sauter. Two years ago, we purchased our family home in the Laurels neighborhood of San Marcos, California. We have two young children, Luca [4] and Everett [2], with plans to expand our family in the next year. This email is in regards to the CPUC's plan to approve SDG&E's 12 mile circuitous route of above ground steel transmission poles. I am writing to express our major concerns, as well as my neighbors, over this project. We live directly off of San Marcos Blvd. (approx. 1 mile West of San Marcos High School). This line literally runs directly behind our backyard and neighborhood park/green space. The installment of this line presents serious issues with fire hazards (open-space), EMF exposure, a decrease in property (re-sale value), not to mention the aesthetics. Having to look at these enormous, ugly structures impeding our line of sight from every angle of our house (both inside and out) and backyard is a tremendous cause of anxiety and stress for our community. It has been brought to our attention that there are alternative routes, including a direct 5.25 mile underground route, that are not been considered due to cost. This is extremely upsetting (but not surprising) knowing that big corporate executives are willing to sacrifice a community's health, safety, and well-being to save a few dollars instead of doing the right thing. I want to VERY be clear. We are 100% against the installment of SDG&E's 12 mile circuitous route of above ground steel transmission poles. Although, the current lines in place come with concerns of their own, they are nowhere near as obtrusive and hazardous. Had we known two years ago, we would NOT have made a huge life decision to purchase our family home along steel powerlines. In 2019, above ground power lines should never be an option, especially in hugely populated areas such as North County, San Diego. I will be attending both the hearings scheduled on April 30th as well as the San Marcos City Council Meeting on May 14 to fight this atrocity.	Your preference for an underground power line and concerns regarding wildfire, EMF, property value, and aesthetics are acknowledged. Please see Master Responses 4, CEQA Process; 2, Wildfire; 3, EMF and Operational Noise; 5, Non-CEQA Issues; and 1, Aesthetics.
Steve Schick	We are opposed to adding new high voltage lines through our neighborhood. It is astounding that, after the Paradise disaster and the immense liability facing PG&E that this is even a question. Here you have a community of high-valued homes in an area that has restricted egress and entrance. Adding more electrical lines through the area should be resisted at all costs. In addition, there should be a plan to address the existing lines and either re-routing them through the infrastructure work San Marcos is doing or bury them.	Your preference for underground power lines is acknowledged. Please see Master Response 4, CEQA Process
Pamela Schiewe	Please prepare an EIR so viable alternatives can be thoroughly considered. Thank you!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Amy Schlegel	I attended the public information event regarding this proposal, and I strongly disagreed with the assessment. These power lines already have an aesthetic impact on my community, and additional power lines will only make this situation worse. This impacts property values in our community. In addition, the recent fires in Northern California were caused by power lines. There is proof that there is a clear fire danger. Or neighborhood is surrounded by brush, and we have already been evacuated twice due to fires. In addition, there are Santa Ana wind events at least twice every year, a huge power line fire risk. These lines are directly under dry brush. I urge you to complete an EIR for this project. These power lines must be placed underground. Thank you!	Your preference for underground power lines and concerns regarding aesthetics, wildfire, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.
Lydia Schnitta	I am concerned about the fire hazard of having above ground power lines running through our neighborhood.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire
Chris Schofield	Please conduct an EIR!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Nancy Schofield	Please prepare an EIR so alternatives such as undergrounding can be considered which will significantly reduce the effects on the environment. It is worth the additional cost to not increase our wildfire risk, to not destroy the aesthetics of our beautiful neighborhood, and to not cause millions of dollars to be lost in property values.	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, and property values are acknowledged. Your request for an EIR is also acknowledged. Please Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.
Blake Schollaert	I want an EIR on TL6975	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Melissa Schollaert	I want an EIR on TL6975	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Spencer Schreckengaust	Please conduct an EIR on SDG&E's project.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Laura Schryver	Please prepare an EIR so viable alternatives can be thoroughly considered.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Erika Schultz	The 12 mile power line route that would potentially go through San Elijo/ San Marcos would: -increase potential wildfire concerns - Create unnecessary health risks for our children due to increased EMFs along the 12 mile route - Decrease our property values (some more than others but we will ALL be impacted) - Negatively impact habitat for some of our local sensitive species - Negatively impact the aesthetic nature of our homes and community - Potentially impact cultural resources buried along the route	Your concerns regarding wildfire, human health, property values, sensitive species, aesthetics, and cultural resources are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; and 5, Non-CEQA Issues. For all other sensitive species and cultural resources concerns please refer to Section 3.4, Biological Resources and 3.5, Cultural Resources.
Gwen Schvimmer	Above ground power lines increase the risk of danger and death from electrical fires. Please put the wires underground.	Thank you, your preference for underground power lines is acknowledged. Please see Master Response 2, Wildfire.
Deborah Schwend	"Please prepare an EIR so viable alternatives can be thoroughly considered". My concerns are health related as well as wild fire danger issues.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Kurt Schwend	The purpose of this document is to request that a full Environmental Impact Report (EIR) be completed in relation to this project. The reason I believe this is necessary is that the Public Draft Initial Study is fatally flawed in that the evaluators failed to interview key stake holders in this project, greatly underestimated the aesthetic impact and risk of these new poles and wires, failed to adequately address long term fire risks caused by this project, and failed to address the public safety risk of this project. Due to the failure to adequately evaluate these risks, those involved in preparing this study also failed to propose effective mitigation. As a homeowner directly impacted by this project it seems to me that no real effort was made to truly evaluate the risks in this project. As a Project Management Professional I can attest that it is the responsibility of the Project Manager to clearly and completely outline all risks associated with a project, and the team involved in this project has not done so. The first step in a project like this should have been to interview a representative sample of all stakeholders. It is clear that homeowners affected by this project are key stakeholders, and no homeowners were interviewed. As a result, the evaluators significantly underestimated the visual, financial, and physical impact of this project. The photo right shows the current power pole as seen looking east on San Marcos Blvd, just east of White Sands. As you can see, the existing pole sits in a narrow alley of dirt approximately 5 feet wide, bounded on the left (north) by the sidewalk, and bounded on the right (south) by a wall. The only viable place to put the new poles is further south on the other side of the wall. This second image shows the view from my backyard looking up at the same power pole and section of wall. As is shown, the hill is very steep with limited vegetation. The current pole is somewhat obscured by the wall, and the palm. The natural wood of the pole blends with the trees and makes it less obtrusive. Just to be clear, I am not complaining about the existing pole, it was there when I moved in and I accept it as such, though it's obvious that removing the pole and power lines would improve the aesthetics of my yard. The third image is a projection of what the new pole would look like. Since there is no room north of the wall, the new poles would have to be installed south of the wall, or inside my and/or my neighbor's yard. Not only would this have an enormous negative impact on my view, it would move the power lines significantly and dangerously closer to a number of houses. It would significantly reduce property values in the neighborhood, and make it nearly impossible to sell the homes. For many of us, our homes represent a retirement investment and having these power poles in our backyards, with power lines running over our roofs, would render our homes worthless, and wipe out this portion of our retirement savings. In the PDIS, in section 3.1.C, the team evaluating this project listed the aesthetic impact of this project as "Less than Significant" and the proposed mitigation as "None Required". As clearly demonstrated above the aesthetic impact of this project for homeowners along San Marcos Blvd should have been listed as "Significant" with required mitigation. Two options for mitigation would be 1) reroute the lines to avoid homes (perhaps through the business area north of San Marcos Blvd, or 2) run the lines underground. I believe that a full EIR would confirm these statements and require that mitigation be implemented. An EIR would also provide a full evaluation of health risks to homeowners caused by moving multiple high voltage power lines significantly closer to residences. My final request in respect to having a large, metal power pole in my backyard is this. If you would not want it in your backyard, you should not put it in mine. I understand that public need can sometimes outweigh individual needs, but when a viable alternative exists, every effort should be made to protect the physical, and financial security of the public. The second flaw in this study is that it fails to adequately address the long term fire risk posed by these expanded lines. As has been demonstrated recently in California, wildfires pose significant risk to life and property. These new and expanded lines significantly increase the risk of a wildfire caused by wind driven debris, earthquake, material failure, and many other potential sources of power line induced sparks or fire. The study acknowledges the risk, but only proposes short term mitigation during construction. It leaves unanswered questions of long term risk, and therefore fails to propose effective long term risk mitigation. Again, rerouting the lines away from residences and natural areas, or running the lines underground are two possible solutions that were not proposed.	Your request for an EIR and concerns regarding aesthetics, wildfire, EMF and safety are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues. See Appendix B.2 for comment attachments.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Kurt Schwend (cont.)	The third flaw in the study is that it fails to adequately address risks to public health and safety caused by the lines. In addition to the risks to homeowners caused by high voltage lines moving significantly closer to residential structures, the proposed new and upgraded lines run past San Marcos High School potentially blocking the exit. If a line were to come down, due to winds, auto accident, earthquake or other cause, it would effectively trap students on the campus. There are also areas of San Elijo Hills that could have their only exit blocked. If a line were to go down, blocking the exit, and starting a wildfire these residents would be unable to evacuate and significant loss of life could result. A full EIR would identify and fully evaluate both the risk, and potential mitigation. Thank you for the opportunity to comment on this project. While I understand that SDG&E and the PUC have identified a legitimate need to upgrade services in this area, I would submit that this proposal is not the best answer for SDG&E or the public, and that the PDIS/MND is incomplete at best, and purposely misleading at worst. The PUC's mission statement includes a commitment to safety, this proposal is not safe. The PUC's vision statements include their commitment to place the public interest above personal interest. As proposed, this project has a huge negative impact on the public. I urge the PUC to require SDG&E to complete a full EIR. I also urge SDG&E and the PUC to completely evaluate the risk and impact to residents (men, women, and children) in this area and to not put incremental profits or expediency ahead of public safety and welfare.	
James Sciumbato	Why isn't the PUC INSISTING ON AN environmental impact report for this project?..?	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process
Bruce Scxhryver	Above ground electric transmission lines are a primary cause of wildfire as evidenced in the Camp fire that took so many lives and devastated Northern California last year. Burying the lines underground is safer, reduces maintenance, eliminates the potential for arcing lines in vegetation areas and is environmentally sound. Please advise SDG&E that undergrounding is the only way this will be approved. Thank you.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process
Andi Selitsch	Power lines should go underground due to fire safety, safety of our food as you turn the power off when there are high wind warnings and health issues due to them being in close proximity of all of us. This is an obvious financial decision and should not be used as a shortcut due to time and cost. Please consider putting them underground and make the correct ethical decision for us citizens. Thank you.	Your preference for underground power lines and concerns regarding wildfire and human health are acknowledged. Please see Master Responses 2, Wildfire, and Master Response 3, EMF and Operational Noise
Eve Sepulveda	We are concerned with fire danger surrounding our community, as well as lowering the value of our properties and increasing our fire insurance. Please conduct an EIR on SDG&E's project. Please have them look into the option of underground lines. It might save our homes and lives. Please see attachment for additional comments. Thank you, Eve and Homero Sepulveda Wildfire hazard map – exactly where they will be running these additional lines. No lines should be put through this area. They should be safely underground. We can't afford 14 hour blackouts every time there is a Santa Ana wind. It is dangerous that our street lights are out and it takes hours to get in our out of this area. Imagine if there was a fire. We would be trapped for hours.	Your concerns regarding wildfire and insurance are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire; 4, CEQA Proces; and 5, Non-CEQA Issues. See Appendix B.2 for comment attachments.
Lisa Serhan	NO MORE ABOVE GROUND POWER LINES. UNDERGROUND ONLY IN SAN ELIJO HILLS	Your opposition to the proposed project and preference for underground power lines or another alternative is acknowledged. Please see Master Response 4, CEQA Process

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Kayl Seymour	We are concerned as a family about the dangers that additional above ground power lines will bring to an already prone fire zone. We've had wildfires close and now the insurance companies are increasing rates because we are now considered to be in an increased fire risk area. Above ground downed power lines add additional unwarranted risks when they could be placed underground. Also, the additional above ground power lines will decrease our property values in our neighborhood. As a homeowner here there would be significant impact on both lowering home values, increasing danger and both endangering and destructing our environment. Not to mention the risks that being in a seismic zone create with the above ground power lines. Lastly, and equally important is the obstruction to our recreation area and proximity to our children's play areas and structures. Please place any new power lines underground. I believe there are government subsidies to help offset the costs. Thanks, Kayl Seymour	Your opposition to, and concerns regarding, the proposed project have been acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues
Mihir Shah	Need a Environmental impact report for the power lines.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Kay Shamran	Beside the major issue of fire hazard that the residents of San Marcos face, and should be a sufficient reason for not continuing with this debate, I would like to respectfuly ask from any decision making member of CPUC to provide a copy of a single study evaluating the long term and cumulative impact of EMF on our environment and health. How do we now that current "safe amount of exposure" to such field will not change in the near future as our understanding and knowlegde increases. How could we make sure doubling the amount of EMF by installing those monster poles would be safe?. As an example in medical field, more than a decade ago a bloodLlead level of 10 micro mole/L was abnormal, now that level has dropped to 4, when in reality we should have "zero" Lead in our body. How do we know the impact of that level in long term ? I guess only time, and continued investigation will clarify that. So please as a resident of San Marcos I encourage you to look into alternatives for this project and I thank you in advance for your wise consideration!	Your concerns regarding EMF and human health are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 3, EMF and Operational Noise and 4, CEQA Process.
Yuxing Shan	Please stop building more powerlines and bury them underground, for our safety and fire reasons. Thank you!	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process
Nicholas Sheive	I have lived in Rancho Dorado since 2001. The power poles running through our neighborhood along Palomar Airport Rd/San Marcos Blvd have impacted my family and I. The buzzing sound on foggy days produces a LOT of noise pollution, the poles and lines increase fire danger, the views we had facing west were blocked by larger poles and more lines and the new plan under TL6975 will worsen all of these things. It is not right to continue to cause harm to the taxpaying citizens of San Marcos with lower home values, harmed views, and increased fire risk. I implore you to prepare an EIR so alternatives such as undergrounding can be considered that will significantly reduce the effects on the environment. It is worth the additional cost to not increase our wildfire risk, or to not destroy the aesthetics of our beautiful neighborhood, or to not cause millions of dollars to be lost in property values. The cost to underground may be higher, but the costs for this project will be passed along to the SDG&E customer either way and believe due to all the reasons above, it would be better to pay a few extra bucks a month for decades to come (these things are usually financed over many decades I believe). Please do the EIR now and ensure the RIGHT project is approved, not just the one SDG&E wants to do. Shouldn't the utilities be here to serve its rate payers anyway? Thank you.	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, operational noise, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Nicole Sheive	As a long time owner in Rancho Dorado in San Marcos, I have seen the effects of the already large electric poles and lines have running through my neighborhood. Enough is enough. Prepare an EIR so alternatives such as undergrounding can be considered that will significantly reduce the effects on the environment. It is worth the additional cost to not increase our wildfire risk, or to not destroy the aesthetics of our beautiful neighborhood, or to not cause millions of dollars to be lost in property values. Don't believe SDG&E when they say undergrounding is cost prohibitive. You do realize that the costs for any upgrades will be passed on to us, the rate payers already, so what is a few more dollars a month over what, 50 years? Keep things safe, stop ruining our views and home values, and don't give into the big utility. Thank you.	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues
Todd Sheive	I vehemently oppose this project. This project will cause harm to the surrounding environment and walking trails, cause additional fire risk as well as decrease home values, increase noise pollution (the static sound you hear from electrical lines especially in moist or foggy air which we get a lot) and create horrible lines of sight to our beautiful West Coast. I strongly demand that an EIR is conducted to make sure that the correct path for this line is chosen. From my understanding reading the documents on this project, there is an option for much of this new line to be put underground but that this was never truly looked into by SDG&E. I am sure that is because SDG&E feels going underground is more expensive, however, the cost of all of this will be passed on to us, the consumers, either way so I would much rather pay a few extra dollars a month for underground lines than having these eyesores and dangerous electrical poles put up around my house. Some of these poles are also less than a hundred feet from my home so these new polls could potentially cause harmful EMF radiation to bombard myself and my family. I cannot stress strongly enough how much myself and all of my neighbors oppose this new line and don't understand why anybody in local government would approve this to go through the way that it is when an underground option should be looked at at the very least before a final decision has been made. Thank you.	Your request for an EIR, preference for underground power lines, opposition to the project, and concerns regarding recreation, wildfire, aesthetics, noise, and human health are acknowledged. Please see Master Responses 4, CEQA Process; 5, Non-CEQA Issues; 2, Wildfire; 1, Aesthetics; and 3, EMF and Operational Noise. For all other recreational concerns, refer to Section 3.16, Recreation of the Draft IS/MND.
Todd Sheive	I have lived in Rancho Dorado since 2001. The power poles running through our neighborhood along Palomar Airport Rd/San Marcos Blvd have impacted my family and I. The buzzing sound on foggy days produces a LOT of noise pollution, the poles and lines increase fire danger, the views we had facing west were blocked by larger poles and more lines and the new plan under TL6975 will worsen all of these things. It is not right to continue to cause harm to the taxpaying citizens of San Marcos with lower home values, harmed views, and increased fire risk. I implore you to prepare an EIR so alternatives such as undergrounding can be considered that will significantly reduce the effects on the environment. It is worth the additional cost to not increase our wildfire risk, or to not destroy the aesthetics of our beautiful neighborhood, or to not cause millions of dollars to be lost in property values. The cost to underground may be higher, but the costs for this project will be passed along to the SDG&E customer either way and believe due to all the reasons above, it would be better to pay a few extra bucks a month for decades to come (these things are usually financed over many decades I believe). Please do the EIR now and ensure the RIGHT project is approved, not just the one SDG&E wants to do. Shouldn't the utilities be here to serve its rate payers anyway? Thank you.	Your request for an EIR, preference for underground power lines, and concerns regarding noise, wildfire, aesthetics, property value, and insurance are acknowledged. Please see Master Responses 4, CEQA Process; 3, EMF and Operational Noise; 2, Wildfire; 1, Aesthetics; and 5, Non-CEQA Issues.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Xiaoyan Sheng	I am very concerned about add more power lines in San Elijo Hills, since Cal Fire investigations have concluded that the Camp fire in 2018, the deadliest fire in history, was caused by PG&E's electric power lines. https://www.nytimes.com/2019/05/15/business/pge-fire.html Before the Camp fire, Cal Fire had concluded that 12 of the Northern California wild fires in 2017 were also caused by PG&E power lines. https://sf.curbed.com/2018/6/8/17443508/santa-rose-napa-fire-wildfire-pge-report-findings As everyone knows, San Marcos, especially San Elijo Hills, are in high risk of fire zone, and also, we have so many kids in our community, they are very vulnerable to fires and smokes! I strongly suggest that all the power lines should bury underground, including all existing power lines to avoid such tragedy happen again. Let's work together to bury the power lines underground now and make San Elijo Hills a better and safer place to for kids to live and grow up! Best, Xiaoyan Sheng West ridge resident, San Elijo Hills, San Marcos	Your preference for underground power lines and your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire; and 4, CEQA Process.
Xiaoyan Sheng	I am very concerned about add more power lines in San Elijo Hills, since Cal Fire investigations have concluded that the Camp fire in 2018, the deadliest fire in history, was caused by PG&E's electric power lines. https://www.nytimes.com/2019/05/15/business/pge-fire.html Before the Camp fire, Cal Fire had concluded that 12 of the Northern California wild fires in 2017 were also caused by PG&E power lines. https://sf.curbed.com/2018/6/8/17443508/santa-rose-napa-fire-wildfire-pge-report-findings As everyone knows, San Marcos, especially San Elijo Hills, are in high risk of fire zone, and also, we have so many kids in our community, they are very vulnerable to fires and smokes! I strongly suggest that all the power lines should bury underground, including all existing power lines to avoid such tragedy happen again. Let's work together to bury the power lines underground now and make San Elijo Hills a better and safer place to for kids to live and grow up!	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Responses 4, CEQA Process and 2, Wildfire.
Charley Sheridan	Relocating existing power lines and supply close to homes and family dwelling is dangerous and asking for future law suits. Updating and bringing up the safety standards are required, but best case scenario is to put them farther from dwellings. These areas are full of young children that can be harmed for year during their development stages. Moving lines closer to them is irresponsible and reckless, opening SDG&E and Officials to lawsuits and litigation for decades. SDG&E and local elected officials are now on notice that this has been brought to your attention. Failure to Serve and Protect your constituents will result in legal action, including if possible, and not limited to personal civil actions. I hope and believe you will represent the people that elected you and not SDG&E and the contractors looking for a quick buck.	Your statements and concerns regarding safety and human health are acknowledged. Please see Master Responses 3, EMF and Operational Noise.
Kathleen Sheriff	As a resident of San Elijo Hills for 14 years I am requesting an environmental report be done in order to put in the new power lines below ground. We have evacuated twice from fires while living here and it is always an unsafe process. Anything we can do to avoid another fire in this area needs to be done. I understand that this is a much more expensive process but if there is a fire here due to the above ground poles the lawsuits would probably be more costly. And since we live in an area where fire is very likely it seems like putting the lines below ground is a good investment for everyone.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process.
Catherine Shi	Dear CPUC commissioners, I'm a student here at SEEs. I agreed with my family and my community that these power lines are threatening our safety. Please listen to us and help us to prevent this proposal. Thanks, Catherine Shi Following is the letter from our community: - Dear CPUC commissioners, We are deeply concerned about the safety of our community and the existing and new threat caused by	Your preference for underground power lines and your concerns regarding wildfire and insurance rates are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.

Name	Comment	Response
Catherine Shi (cont.)	the power lines. Cal Fire investigations have concluded that the Camp fire in 2018, the deadliest fire in history, was caused by PG&E's electric power lines[1]. Long before the conclusion was made, PG&E declared bankruptcy protection last year. It is clear now that not only the town is destroyed, but there will have no money to rebuild. The whole community is completely ruined. Before the Camp fire, Cal Fire had concluded that 12 of the Northern California wild fires in 2017 were also caused by PG&E power lines[2]. How many of such tragedies need to happen before people realize that the safest place for power lines is under the ground? For the safety of the residents, the children and the future of California, shouldn't we make it a rule that all new power lines should be buried underground? Can't we start with the one we are building? And move the existing ones down once possible? In case SDG&E is arguing the alternative remedies, such as power blackout during hot and windy days. Last year, SDG&E blacked out the power two times with each lasting for a day or two. While this may be manageable for once or twice a year, it is clear that such incidents are on the rise. As the progression of global warming, the dry hot winds from the desert is certain to be stronger, last longer, and occur more frequent year after year. Soon we are going to expect week-long blackouts[3]. When will we say enough is enough? Shouldn't we act now before it is too late? Before more people loss their homes or even their life's? You have the power to stop this madness, please help us to do the right thing, so we, and you, can sleep better at night knowing you've done ther right thing!!! And talk about quality of life, because of the fires, not only the residents here have suffered physically and psychologically from the last fires and evacuations, now we are facing the devaluation of our homes and much higher insurance costs even if we could find that rare insurance provider who would still cover us. Let's work to bury the power lines underground now!!!! And become a hero to our community, and other communities around California by becoming an advocate for the right ways in building new powerlines- only build down underground!!! Best regards San Elijo hill residents References: [1] https://www.nytimes.com/2019/05/15/business/pge-fire.html [2] https://sf.curbed.com/2018/6/8/17443508/santa-rose-napa-fire-wildfire-pge-report-findings [3] https://www.bloomberg.com/news/articles/2019-05-12/california-may-go-dark-this-summer-and-most-aren-t-ready	
Dawei Shi	Dear CPUC commissioners, We are deeply concerned about the safety of our community and the existing and new threat caused by the power lines. Cal Fire investigations have concluded that the Camp fire in 2018, the deadliest fire in history, was caused by PG&E's electric power lines[1]. Long before the conclusion was made, PG&E declared bankruptcy protection last year. It is clear now that not only the town is destroyed, but there will have no money to rebuild. The whole community is completely ruined. Before the Camp fire, Cal Fire had concluded that 12 of the Northern California wild fires in 2017 were also caused by PG&E power lines[2]. How many of such tragedies need to happen before people realize that the safest place for power lines is under the ground? For the safety of the residents, the children and the future of California, shouldn't we make it a rule that all new power lines should be buried underground? Can't we start with the one we are building? And move the existing ones down once possible? In case SDG&E is arguing the alternative remedies, such as power blackout during hot and windy days. Last year, SDG&E blacked out the power two times with each lasting for a day or two. While this may be manageable for once or twice a year, it is clear that such incidents are on the rise. As the progression of global warming, the dry hot winds from the desert is certain to be stronger, last longer, and occur more frequent year after year. Soon we are going to expect week-long blackouts[3]. When will we say enough is enough? Shouldn't we act now before it is too late? Before more people loss their homes or even their life's? You have the power to stop this madness, please help us to do the right thing, so we, and you, can	Your preference for underground power lines and your concerns regarding wildfire and insurance rates are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Dawei Shi (cont.)	sleep better at night knowing you've done ther right thing!!! And talk about quality of life, because of the fires, not only the residents here have suffered physically and psychologically from the last fires and evacuations, now we are facing the devaluation of our homes and much higher insurance costs even if we could find that rare insurance provider who would still cover us. Let's work to bury the power lines underground now!!!! And become a hero to our community, and other communities around California by becoming an advocate for the right ways in building new powerlines- only build down underground!!! Best regards, Dawei Shi cedar crossing, San Elijah Hills Comumunity References: [1] https://www.nytimes.com/2019/05/15/business/pge-fire.html [2] https://sf.curbed.com/2018/6/8/17443508/santa-rose-napa-fire-wildfire-pge-report-findings [3] https://www.bloomberg.com/news/articles/2019-05-12/california-may-go-dark-this-summer-and-most-aren-t-ready	
Chang Shin	prepare an EIR so alternatives can be thoroughly considered.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Tracy Shoman	Please look for alternate options for the power lines. I understand it is possible to run them underground. We want to maintain the beauty, safety, and proper blues of our community. Thank you.	Your opposition to the proposed project and preference for underground power lines or another alternative is acknowledged. Please see Master Response 4, CEQA Process.
Sean Siegmund	I am against any more Fire risks then we already have in this area. Especially when an incentive program for Batteries in homes would permantly solve all our problems.	Your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire.
J Signorino	Any power lines need to be underground. Look at the fires in No Cal created by above ground lines. In addition to risking our families safety from a fire perspective the health risk from electromagnetic are even greater. I like all of my neighbors are against these power lines and expect the San Marcos City Council to fight for us and not let this happen. This City Council did not stand up to the Cell Companies and authorized a Massive Microwave Cell Tower Complex in San Elijo Hills. No more microwave or electromagnetic pollution in our community and if you do add these massive power lines they must be underground. Carlsbad and surrounding communities are not allowing these power lines and massive cell towers in their communities.	Your preference for underground power lines and concerns regarding wildfire and human health are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; and 4, CEQA Process.
Brian Simantel	Please do a full review and EIR. Living in the neighborhood these power lines will be an eye soar, fire hazard, and many other issues… there has to be a better way!	Your concerns regarding aesthetics and wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process
Jenn Simantel	Let's keep our beloved SE Hills safe!	Thank you, your statements have been acknowledged.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Jason Simmons	California's Public Utilities Commission (CPUC) has requested comments and concerns regarding the Project and the adequacy of the Public Draft Initial Study/Mitigated Negative Declaration (IS/MND). This is a letter of objection to the proposed development due to the lack of an in-depth Environmental Impact Report (EIR) by the CPUC. I object to the proposal in its current form and request the CPUC conduct an EIR for the following reasons: 1) Aesthetics -why construct a 12-mile circuitous above-ground route, when there is a legitimate alternative and direct 5.25-mile route underground? There should be an in-depth analysis of all other legitimate routes before diminishing the viewshed of community members. This area is known for its beautiful natural landscape where people enjoy being outdoors hiking or mountain biking. How will these new above-ground lines affect quality of life? 2) Wildfires -Without a robust wildfire study, how would the community even begin to feel comfortable or safe with the construction of 12-miles of above ground power lines in their backyards? The potential for increased power outages during wildfire season can have devastating consequences. The construction of these new lines undoubtedly increases fire risks and the fears of property owners. 3) Home Values -Property values are decreased when power lines are close by. If there are other potential underground routes, they should be studied in-depth before a decision is made to decrease neighborhood property values. 4) Green House Gasses -Only an in-depth EIR can address the reality of green-house gas effects from this proposed development. What are the levels of green-house gasses emanating from construction trucks on site? Will this affect air quality? 5) Noise -As a San Elijo homeowner, I am concerned about the noise levels this project may produce during construction. Once constructed, power lines emit noise due to corona discharge. This could take away from the peaceful enjoyment residents currently have while on our scenic trails. For the reasons listed above, I do not feel that this proposed power line project by SDG&E should be approved out an in-depth EIR to comply with CEQA requirements.	Your request for an EIR and concerns regarding aesthetics, wildfires, property values, greenhouse gasses, and noise are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 3, EMF and Operational Noise. Please also see Draft IS/MND sections 3.3, Air Quality and 3.8, Greenhouse Gas regarding levels of greenhouse gasses during construction. See Appendix B.2 for comment attachments.
Kamala Slight	As a resident of Harmony Grove Village and native San Diegan, I am firmly opposed to the proposal by SDG&E to erect additional power lines in this area. They are not only an eyesore, but pose health and fire risks that are not acceptable.	Your opposition to the proposed project and concerns regarding aesthetics, human health, and wildfire are acknowledged. Please see Master Responses 1, Aesthetics; 3, EMF and Operational Noise; and 2, Wildfire.
Addison Smith	I am a resident and student in San Elijo. I live on a canyon, in the path of the last fire that came through our neighborhood. Fire threats in my neighborhood are scary and I will always remember the day we were evacuated. We sat in our car for hours trying to evacuate wondering if we'd be safe. It is not okay to put my life at risk to build infrastructure that can be put underground. Make an EIR.	Your concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process.
Ava Smith	I am a resident and student in San Elijo. I am concerned for my health and life if more towers are built in my neighborhood. Being evacuated is very scary and being subjected to high levels of EMF's in our homes is not acceptable. EIR, please.	Your concerns regarding wildfire and human health are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process
Cindy Smith	I would like an EIR	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Lindsey Smith	I would like an EIR.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Lindsey Smith	Our community of approx 3,000 homes and 3 schools only has two points of ingress/egress. These lines would pass over 1 of those 2 points. We have already been evacuated on a few occasions and despite all available lanes of traffic being in one direction for fastest egress, it still takes approx 3 hours. That combined with Santa Ana winds and steap topography, plus being declared by CalFire as a High Severity Fire Hazard zone does not make us a candidate for a path for this project. Additionally, existing transmission lines should be evaluated for undergrounding with these new lines. We need to start removing the risk from our neighborhood, not increasing it. An EIR needs to be completed so that undergrounding can be evaluated. Furthermore, regulations should be rewritten that construction in High Severity Fire Hazard zones should not ever be an option without an EIR. We should not continue to build infrastructure in a way that puts lives and homes at risk when there are alternatives that mitigates those risks.	Your request for an EIR, preference for underground power lines, and concerns regarding other alternatives and wildfire are acknowledged. Please see Master Responses 4, CEQA Process and 2, Wildfire.
Michelle Smith	I want an EIR!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Bertil Smith, Md	The schools in the San Elijo community are shelter-in-place schools. If a fire comes through our neighborhood, we would be unable to get our children, protect them, and remove them from the threat of losing their lives to fire. San Elijo is a high severity fire zone, has steep topography that makes it difficult to fight fires in this area, and suffers from regular occurrences of Santa Ana winds. When our power is cut as a precautionary measure during Santa Ana winds, we lose all our traffic signals in the neighborhood. This snarls traffic and creates dangerous conditions for emergency response vehicles and the members of our community that rely on access to their medical devices. This project should not be considered as scoped. An EIR should be conducted and an alternative path of undergrounding should be evaluated.	Your preference for underground lines, request for an EIR, and concerns regarding wildfire are acknowledged. Please see Master Responses 4, CEQA Process; and 2, Wildfire.
Daniela Soll	Please ensure that an Environmental Impact Report is conducted! My husband and I, and our 2-year old son live in a single-family home approximately 380 feet from the currently installed power lines in segment 2 of the proposed TL6975 project. When my husband and I purchased our home we thought a great deal about the distance from the home to the power lines and with the research we did, determined that we would proceed with the purchase of our home. Now, here we are, facing a project that will add more massive (40-110 feet tall), above-ground power lines, 30 feet closer to our home. Not only does this negatively impact the property value of the homes in our community, including our own, but there is also a concern regarding the EMFs and their impact on us and even more importantly our 2-year old son. We have had many conversations about the EMFs and the potential dangers of living this close to the above-ground power lines, and now, if this project is approved we would have to consider if putting up our home for sale and moving is really the safest option. It is my understanding that although there has been little evidence showing the dangers of EMFs (i.e. potential association with childhood leukemia), there also is little evidence showing that EMFs are safe. According to the SAN DIEGO GAS & ELECTRIC SAN MARCOS TO ESCONDIDO TIE LINE (TL) 6975 69kV PROJECT Report I see that the stance of the CPUC and California EMF Consensus Group is as follows; “We find that the body of scientific evidence continues to evolve. However, it is recognized that public concern and scientific uncertainty remain regarding the potential health effects of EMF exposure. We do not find it appropriate to adopt any specific numerical standard in association with EMF until we have a firm scientific basis for adopting any particular value.” So, if the CPUC and CA EMF Consensus Group have uncertainty regarding the potential health effects of EMF exposure then how do we know if the “no-cost” or “low-cost” EMF management measures are even doing anything? Also, does it seem right that just because the uncertainty remains it makes sense to continue installing more power lines 30 feet closer to homes (in segment 2)? In addition to the current project, it is my understanding that if this project passes and the above- ground power lines are installed, then SDG&E has the ability to add even more power lines to this area, without having to obtain additional permits, due to transmission rights-of-way. So, does this mean that we could	Your request for an EIR, preference for underground power lines, and concerns regarding property values, insurance, EMF, aesthetics, and wildfire are acknowledged. Please see Master Responses 4, CEQA Process; 5, Non-CEQA Issues; 3, EMF and Operational Noise; 1, Aesthetics; and 2, Wildfire. See Appendix B.2 for comment attachments.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Daniela Soll (cont.)	(and probably would) end up with even more rows of massive above-ground power lines that we wouldn't be able to do anything about? In the Project Report I see that "Less than significant" was determined for "Impact 3.1.a: Have a substantial adverse effect on a scenic vista." and "Impact 3.1.c: Substantially degrade the existing visual character or quality of public views of the site and its surroundings, or since the project is in an urbanized area, whether it would conflict with applicable zoning and other regulations governing scenic quality." How is it possible that adding more 40-110 foot powerlines in our backyard and neighborhoods can be considered a "less than significant" impact? If you consider what the power lines used to look like (wood lines only ~30 feet tall) then I would say the current metal power lines would be considered a significant impact on the scenic vista, and adding more lines to this should also be considered significant. One of our neighbors indicated that the property value of her home decreased by 40 thousand dollars due to the current metal power lines as compared to the previous wood power lines. If just one home value is impacted negatively by 40k then all of the other homes in the surrounding neighborhoods will be impacted as well. The report also states; "From north to south, Segment 2 would include the single-family residential area between Palomar Airport Road and White Sands Drive. After passing through the Via Allondra/Via Del Corvo neighborhood immediately south of White Sands Drive, the alignment would proceed over hilly undeveloped terrain to Meadowlark Junction. Approximately 2,500 feet north of this junction, the proposed alignment would skirt the west side of the single-family neighborhood along Sagewood Way, Copper Court, Brookside Court, and Rivercrest Road. While undeveloped, this area contains trails and maintained plantings." Just because the power lines are being placed in undeveloped areas, does not mean it does not have an impact on the people that live in these single-family neighborhoods. The cumulative impact of going from the wood power lines to the current power lines and now to a second set of metal power lines has to be considered. What about other communities in San Diego where underground power lines were installed? The SDG&E project "Bernardo to Rancho Carmel Substation Transmission Line Project" documentation states that; "This project involves the conversion of an existing 69-kV transmission line from an overhead alignment to an underground alignment between the Bernardo and Rancho Carmel substations. This includes removing approximately three miles of overhead transmission infrastructure and replacing it with an improved underground cable system along roadways within Rancho Bernardo Road, Camino San Bernardo, and Camino Del Norte. Project benefits • Increased reliability of the electric system. • Greater capacity for electricity to flow through our system in the surrounding communities. • Improved aesthetics in the surrounding areas. • Minimize environmental impacts and future maintenance." I would like to understand why one project is going underground in order to have increased reliability, greater capacity, improved aesthetics, and minimized environmental impact while another project seems to be proposed without consideration for any of these same items. In addition to the potential hazards of the EMF and the substantial impact on the scenic vista and home values, there is also the issue of power lines and their potential role in starting wildfires. Last year our power was turned off for 12-24 hours because of high winds. I can understand that this is a risk mitigation strategy but it should not be THE mitigation strategy accepted in order to avoid wildfires during extreme weather conditions. If the Santa Ana winds had continued for a week, would our power have been turned off for a whole week? This does not seem like the right mitigation strategy if there are other options that can be considered before a project is started. Currently in the media we see that PG&E is dealing with bankruptcy and facing $30-50 billion in liabilities due to their role in the California wildfires. At the San Marcos City Council meeting earlier this month, we were told that it would be too expensive to install these power lines underground ($30 million for above-ground vs $90 million underground). All I can say is that if you look at the number of homes (3,500+ homes in San Elijo Hills alone) near this project and calculate the home values (the average single-family home in SEH is over 950k) and the fact that they are located in an 'extreme high fire zone', I would think that $90 million is a much easier number to deal with as compared to $30-$50 billion or more that SDG&E could face if the SDG&E power lines play a role in wildfires in our area. Not to mention, the loss of our lives really should not have a price tag associated with it. Currently, it is very difficult to even get homeowners insurance (and the cost for some is outrageously	

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Daniela Soll (cont.)	high) in our neighborhood and I suspect this will become increasingly more difficult if additional power lines are installed. When I look at the project plan I can see that SDG&E is attempting to use existing rights-of-way for this project to connect the San Marcos Substation to the Escondido Substation but what I don't quite understand is why the choice to add more lines to 12 miles is better than trying to connect in a more direct route since the two power stations are only ~5.5 miles apart. Could this be the reason for the high cost? Is the comparison between 12 miles of above-ground lines versus 12 miles of underground lines? Perhaps this 12 mile stretch is not the best option? Were underground options or alternative routes even considered? If SDG&E's stance is that installing these power lines underground is too costly then I think this should be re-evaluated. It seems to me that SDG&E is trying to take the easiest and least expensive route without considering other options or taking into account the real impact of the project on the people that live in these communities. The TL6975 69kV PROJECT Report states; "If the agency determines there is substantial evidence that the Project may cause a significant effect on the environment, it shall prepare an Environmental Impact Report (EIR)." Do we truly know the environmental impact on the project without an EIR? I ask you to please, please consider the importance of this decision and the true impact it will have on the homes and people that live in these communities. At minimum, please ensure that an EIR is conducted and that the underground or alternative route options are considered. Thank you.	
Lorenzo Sorano	Conduct an EIR so a thorough analysis of viable alternatives can be completed before approving SDG&E's proposed project. I wouldn't be surprised if most residents would be OK with paying a bit more to have the lines run underground. We don't want unsightly power lines in our community. It's a health hazard and lowers property values. STOP SDGE ruining our community.	Your preference for underground power lines and your concerns regarding human health and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.
April Sparks	I have submitted a previous comment, however, after I went to the CPUC open forum and listened to the presentation and saw the slide show, there was something very important that I want to point out that I noticed was omitted. The fire danger that was presented was for the construction of the lines ONLY! Not the ongoing fire risk to our area! This is completely unconscionable due to our high fire risk as I have lived here as an original owner since 2001 and have gone through fires and have even been trapped and unable to get out due to the traffic jam of all the other residents trying to leave our community. With the Paradise fire and all of the loss of life, and the responsibility of PGE, I want an EIR done to look at other alternatives such as undergrounding.	Your concerns regarding wildfire is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 2, Wildfire, and 4, CEQA Process.
April Sparks	My name is April Sparks and I live at 1441 Rivercrest Road in San Marcos, CA. My husband and I are the original owners of our home. First, when we first moved into the community in December of 2001, there were only small wooden power lines behind our home. They were not very noticeable. The wood blended in with the brown and green hills, and the lines themselves were not very noticeable either. Our viewshed has been impacted already with the construct of the large metal power lines, and now we will be further impacted with another set. Second, we also have beautiful hiking trails behind our home and the area behind us is a nature preserve. The power lines also impact our trail system, and we can hear humming coming from the power lines, and with more, it will only get worse. Third, the value of our home is sure to be impacted with another set of power lines put behind our homes. Last, but in my opinion, most important is the risk of fire danger these new poles will have on our community. These poles will be even closer to our homes, extremely close to the existing poles, and with our high Santa Ana winds, I am extremely concerned of the real risk of a spark starting a fire directly behind our homes. There is dry brush all behind our homes. We have already had fires in our hills, and have been evacuated twice. We can not get out due to the two lane road and the over 8,000 people living in San Elijo, much less the people who also try to evacuate from neighboring communities. These power lines should be put underground, and the existing ones should be put underground at the same time to prevent fire risk. What happened in Northern California is a tragedy, but could have been avoided. The amount of money PGE is having to pay in	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, operational noise, insurance, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
April Sparks (cont.)	retribution is far greater than if the power lines had been put underground to begin with, not to mention the loss of life and pain the families with have to endure forever. All we are asking for is for an Environmental Impact Report to be completed. There are other more direct routes that can be used that will have less impact and fire risk. This will also allow for a more in depth fire study to be done. Thank you for your consideration in this important matter.	
Jennifer Spengler	The proposed project is a hazard to our community -- one often besieged by fires with minimal routes for evacuation. Adding above-ground lines only increases this danger and is inconceivable when underground lines are possible.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire
Allison Spiller	Please consider the environment as there are potentially negative environmental issues re: the natural habitat/local species. Also the noise and disruption during the actual construction. We have already been through this!!!! These aspects MUST be considered.	Your comment is acknowledged. Please refer to Section 3.4, Biological Resources for concerns regarding sensitive species and Section 3.13, Noise for impacts associated with noise during construction in the Draft IS/MND.
Allison Spiller	The proposed SDG&E second set of powerlines (12 miles) traversing both the Rancho Dorado and San Elijo Hills developments will have significant negative effects for both residents and the environment. Safety, aesthetics and property values are chief concerns that are not reflected in the SDG&E proposal. This new powerline will: Increase potential wildfire danger Decrease property values and negatively impact neighborhood aesthetics Increase health risks such as increased EMFs A 5.4 mile underground alternative needs to be studied as it has none of the long term negative impacts of the current proposal. A comprehensive budget analysis needs to be completed to compare the cost since this has not been done. California CAN NOT afford to construct more above ground powerlines when most new lines are laid underground, thereby eliminating these very real risks to property, health and safety. An Environmental Impact Report – EIR – needs to be done to address all of these critical issues.	Your request for an EIR, preference for underground power lines, and concerns regarding safety, aesthetics, property values, wildfire, and human health are acknowledged. Please see Master Responses 4, CEQA Process; 1, Aesthetics; 5, Non-CEQA Issues; 2, Wildfire; and 3, EMF and Operational Noise.
John Spiller	I strongly object to this proposal as the additional poles and powers line will have a significant negative impact on these communities. Although the initial study claims that the aesthetic impacts are not significant, the only way this is not significant is if you do not live in the area. Any above ground implementation will have a significant negative impact to both communities that cannot be mitigated. These are two of the premier communities in San Marcos and the impact of these additional towers will have a negative impact to housing prices and also pose a safety problem from increased EMF. Even more significant is the increased risk of fire danger. The Paradise fire should be a wake up call to all utilities for the risk to persons and property from power lines. San Marcos recently experienced the Cocos fire which significantly impacted the San Elijo community. They are limited to two modes of egress in the event of wildfires and these become choke points for the affected residents. How does the loss of life figure into the cost/benefit calculations of not running the lines underground or through areas that do not pose a high fire risk? If these additional lines are truly necessary, a 5.4 mile underground alternative routing needs to be studied as it provides the only real mitigation to negative impacts. This would include a budgetary analysis that looks at the increased construction costs spread over the entirety of the rate payers. At a minimum, an Environmental Impact Report - EIR should be required to investigate these critical issues.	Your opposition to the proposed project, request for an EIR, preference for underground power lines, and concerns regarding aesthetics, EMF, and wildfire are acknowledged. Please see Master Responses 4, CEQA Process; 1, Aesthetics; 3, EMF and Operational Noise; and 2, Wildfire.
Jessica Springer	I would like an EIR conducted for this project. I'm concerned about the likelihood of the lines causing a fire especially because of the trouble we had evacuating during the last fire.	Your concerns regarding wildfire is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 2, Wildfire, and 4, CEQA Process

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Kham Srilasak	I strongly oppose adding any additional above the ground installations of power lines especially given the fact that there already exists one right in my backyard. Having one now already impacts my home value, having 2 would certainly dramatically further impact not only the value of my house but the safety of my children.	Your preference for underground power lines and concerns regarding property value have been acknowledged. Please see Master Responses 4, CEQA Process; and 5, Non-CEQA Issues.
Michele Srilasak	Please don't place the power lines above ground. - there are many lives at stake. The power lines above ground: Increases fire threat Could potentially increase risk of leukemia Decrease home values	Your preference for underground power lines and your concerns regarding wildfire, human health, and property value are acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.
Kim Staley	Hi, I would like to ask you to please prepare an EIR so that all alternatives can be thoroughly considered. Thank you. Sincerely, Kim Staley	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process
Jenifer Stander	As a resident of San Marcos who already lives too close to power lines for my own comfort please do an EIR! Take the time!	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire
Thomas Starling	I'm very concerned about my families safety and would like to see the power lines go underground. I want an EIR on TL6975.	Your preference for underground power lines or another alternative is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.
Thomas Starling	We purchased our property in this area for the beauty, schools, and climate, we oppose the SDG&E San Marcos to Escondido Tie Line 6975 69kV Project because of it adding fire hazards, ruining our views, and causing health concerns for our children. Please use the underground alternatives.	Your preference for underground power lines and concerns regarding wildfire, aesthetics, and human health are acknowledged. Please see Master Responses 4, CEQA Process; 1, Aesthetics; 2, Wildfire; and 3, EMF and Operational Noise.
Vanessa Stewart	I attended the CPUC meeting in my community, San Elijo Hills, on April 30, 2019. I intently listened to the presentation of the CPUC board members. I realized that the board was limited in their ability to answer pointed questions. Therefore, how can the CPUC forward any recommendations to its 5 judge panel? Please a Environmental Impact Report (EIR) is needed. I have attached a picture of my home. It is the one with the beige shutters and beige garage door. I do have concerns about the additional power lines proposed being erected behind my home. The additional higher levels of EMF that will affect me and my family, is a concern. The additional fire hazard in a designated fire zone, is a concern. The impact on the ecosystem, is a concern. The COST of this project, is NOT a concern. SDG&E states that they will have to pass the cost of undergrounding the power lines on to its customers. Any and all improvements are usually passed on to the consumers anyway! There are additional charges on my existing bill that represent that fact. Unfortunately, the Counnty of San Deigo is over building in areas that the Fire Commissioner has warned is dangerous. Yes, the demand for more power has increased. Yes, consumers are doing their part by installing solar panels and decreasing power demand in peak hours per the new SDG&E program. As a customer of this utility, I have few choices for my gas and electric needs. I do have the ability to make my concerns known to one and all. This project needs more review. Thank you.	Your preference for underground power lines and concern regarding EMF is acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 3, EMF and Operations Noise; 4, CEQA Process. See Appendix B.2 for comment attachments.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Vanessa Stewart	I moved into my Sagewood Way home in 2004. At that time there were smaller telephone power lines running behind the houses. Then came the higher power lines with intimidating towers and multiple lines. Now, SDG&E is planning to add more lines and towers even closer (within 30 to 50 feet) to our homes. Why? The recent fires started by PG&E should be enough to warrant burying any new lines. The expense of burying the lines in time will pay for itself. It lessens the fire risk. It eliminates the reduction in home values. It lessens any increase in health hazards. I understand that the proposed route isn't the shortest route to the power station. Please, reconsider this ill conceived plan. Make the will of the homeowners, the safety of the homeowners and the health and well being of said people the priority. I know that all needs can be meet with a reasonable compromise, like putting new power lines underground. Thank you, Vanessa S.	Your preference for underground power lines and your concerns regarding wildfire, human health, and property value are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.
Michelle Storm	I want an EIR report	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Trent Storm	Projects like this lower home values, increase fire hazards and ruin natural views. They in no way improve distribution to those who's home values are diminished, nor do they lower energy costs. Essentially a lose/lose situation.	Your concerns regarding aestheitcs and wildfire have been acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire.
Lia Strell	As a homeowner who drives along San Elijo Rd under the ever increasing wire configurations popping up overnight, I have to wonder if anyone is paying attention to fire danger, EMF danger, or electrical magnetic frequencies. We live in a new community with no over head wires. Why are these wires not going underground for our health, safety esthetics. One not on fire danger. There happens to be one way I am very concerned with the huge traffic with all the schools and with the 5 oclock rush hour. Traffic at deadlock is every day. What happens if the fire comes through Elfin Forest as it has before when no one lived in the area????? These wires must go underground to protect the residents.	Your preference for underground power lines and concerns regarding wildfire and human health are acknowledged. Please see Master Responses 2, Wildfire, and Master Response 3, EMF and Operational Noise.
Richard Strell	As a homeowner who drives along San Elijo Rd under the ever increasing wire configurations popping up overnight, I have to wonder if anyone is paying attention to fire danger, EMF danger, or electrical magnetic frequencies. We live in a new community with no over head wires. Why are these wires not going underground for our health, safety esthetics. One not on fire danger. There happens to be one way We are very concerned with the huge traffic with all the schools and with the 5 oclock rush hour. Traffic at deadlock is every day. What happens if the fire comes through Elfin Forest as it has before when no one lived in the area????? These wires must go underground to protect the residents.	Your preference for underground power lines and concerns regarding wildfire and human health are acknowledged. Please see Master Responses 2, Wildfire, and Master Response 3, EMF and Operational Noise.
Amanda Stubbs	I am writing to tell you I am highly concerned about the idea of more above ground power lines in San Marcos. We n Ed to move our power line underground. I want an EIR on TL6975. Thank you, Amanda Stubbs	Your preference for underground power lines or another alternative is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process
Gary And Carol Stutzman	Please advise how many lines are going to be strung. My house is for sale and the lines come right across our view to the north. Buyers keep wanting details and we are really not being given any except two poles are being added at the top of our hill. How many lines will be added to each pole? The price of our home has gone down now by $175,000 due to the devaluation of our property because of these lines. Is there any compensation for that? Any information will be appreciated.	Your statements are acknowledged. Please see Chapter 2, Project Description and Appendix A, Route Mapbook for details concerning the addition of new lines in the Draft IS/MND.
Nalini Sudharshan	Please conduct EIR on SDG&E's project. Thanks, Sudharshan	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Samir Sugathan	Please conduct an EIR on this proposed project. I am very concerned this not only will have an effect on home values but also on the environment if this plan goes ahead Thank you.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process
Tony Suk	Please conduct an EIR on SDG&E's project. I have lived at the current address since 2009. I remember the shock and anger of seeing the current power lines being constructed and placed so close to my neighborhood. I was under the impression that power lines have dangerous electromagnetic emissions that can cause all sort of maladies including cancer. I thought modernization and safety would lead to power lines being placed underground and not having larger ones to replace the existing lines on the wood poles with huge towers and more lines. Due to health concerns, I do not venture on the hiking trails that are feet from my home. Also, our beautiful neighborhood and open space is degraded with the eye sore of the huge power lines as well as decreasing our property values. Instead of placing more dangerous above ground power lines closer to homes, the project should involve moving the power lines underground!	Your request for an EIR, preference for underground power lines, and concerns regarding human health, aesthetics, and property values are acknowledged. Please see Master Responses 4, CEQA Process; 3, EMF and Operational Noise; 1, Aesthetics; and 5, Non-CEQA Issues.
Gabrielle Sullivan	We are absolutely against new power lines in the San Elijo area. We have extreme fire danger in our community as is, and added power lines will pose a greater risk. I understand there to be other health risks as well. NO MORE POWER LINES!!	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
Josh Sullivan	Please do not build.	Your opposition to the proposed project has been acknowledged.
Angela Sumner	Please put these lines underground and make San Elijo Hills a safer place. I've lived in San Diego my whole life and I've seen the fires rip though our neighborhoods. Ramona, Poway, RB, RP, SR Escondido and San Marcos. Do what's smart and not what's cheaper.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process.
Angela Sumner	Please complete an environmental study for the power lines! They need to be put underground! It's safer for our community! Your doing this in Ranch Bernardo so why not in San elijo.	Your preference for underground power lines or another alternative is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.
Anne Sun	These eletric poles are a huge threat to our saftey. In Southern California, they can easily ignite a fire and take our homes. San Elijo is a very small town, so the fires and easily engulf is. We don't want these poles.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire
Yan Wei Sun	I object this project because it will be a big thread to our community.	Your opposition to the proposed project is acknowledged.
David Swann	You need to conduct an EIR on SDGE's project. We DO NOT WANT THE POWER LINES in any form!!!!!	Your preference for underground power lines or another alternative is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process
Eric Swanson	I want an EIR on TL6975!!! The health and safety of our community depend on it.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Libbi Swanson	An Environmental Impact Report on TL6975 is a must. The health and safety of our community depend on it!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Peter Syked	Please think adding more above ground power lines is the not the answer in San Elijo Hills especially in an area that is always on alert for fires and evacuation is not easy.Please consider below ground power lines. Thank you	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process
Wendy Sykes	Please don't destroy our city with above power lines. Our homes are in danger of fires. Please put underground power.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process
Wendy Sykes	Wildfires are a significant risk in our community and we don't have enough evacuation routes. SDG&E has an alternative underground route that is much shorter and safer; don't cause fires. In Europe, electric power lines underground, and there is no reason not to do this here; SDG&E can handle the additional cost. Other reasons: house values, insurance cost, aesthetic… CPUC should defend the public interest, not SDG&E's	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
Greg Szepe	As a resident I have strong doubts that this project is in the best interest of anyone other than the builder. Request critical review and environmental and wild fire risk study prior to moving forward if at all. Alternatively, require these lines to be underground.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
Benjamin Tacheny	Please conduct an EIR on SDG&E's project near San Elijo hills. Thank you.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Alex Tardy	While it can be debatable on the health hazards of high-voltage powerlines or the effects on wildlife, it is not debatable on the impact to lowering real estate values and general neighborhood appearance. All you have to do is look at neighborhoods with existing power poles from prior to 1980 and it is clear that any such project of this type should take every effort, even with extra expense, to bury underground through existing neighborhoods. This is reasonable given that these neighborhoods are already well-established and in place. Also safety is a factor, studies in Quebec show that during the ice storm and high wind events (wildfires) if there were underground high-voltage would've saved them millions of dollars in damage and improved safety.	Your preference for underground power lines and concerns regarding human health, wildlife, property value, and aesthetics are acknowledged. Please see Master Responses 4, CEQA Process; 3, EMF and Operational Noise; 5, Non-CEQA Issues; and 1, Aesthetics. For all other concerns regarding wildlife refer to Section 3.4, Biological Resources.
Heather Tardy	Powerline should be buried underground and have proven to affect Real Estate Costs negatively	Your preference for underground power lines and your concerns property values are acknowledged. Please Master Responses 4, CEQA Process and 5, Non-CEQA Issues.
Matt Tasch	Please provide Environmental Impact Report	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Sara Tasch	I would like to see an environmental impact report. Thanks!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Cindy Tauss	I do not want the larger polls put in Rancho Dorado. They are an eye soar, cost too much Any wild fire could affect the lines. I am against putting new poles in our community	Your concerns regarding aesthetics and wildfire are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; and 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
John Tauss	After the horrific Wildfires last year, I can't believe this is even a consideration. In addition, It was found just recently that SDG&E power lines were the cause of the Camp Fire. No way should another power line be allowed. We have a hard time getting insurance as it is. The power lines also affect our Property Valuations! This happened when they put the newer large ones the last time. This is another reason power lines should be put underground. They should not be considered due to the scenic views and hiking trails being disturbed either. Please stop this nonsense and only use underground power lines in residential areas especially where we have lots of Fire concerns already with the natural brush preserves	Your statements regarding property values and homeowners' insurance are acknowledged, as well as your preference for underground power lines. Please see Master Responses 1, Aesthetics; 2, Wildfires; and 4, CEQA Process.
Nicole Tessieri	I want an EIR. There must be safer alternatives that do not affect health and property values in the community. Not to mention that the power lines will be a total eyesore.	Your preference for underground power lines and your concerns regarding aesthetics, human health, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.
Marjan Thatcher	Please help prevent brush fires in San Elijo and surrounding area and perform an EIR on TL6975.	Your request for an EIR and concerns regarding wildfire are acknowledged. Please see Master Responses 4, CEQA Process and 2, Wildfire.
Jp Theberge	I want an EIR on TL6975. Would like to look at a project alternative of under grounding the lines to provide more fire protection in a very high fire severity zone.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2 Wildfire, and 4, CEQA Process.
Rachel Thomas	These power lines should not be installed above ground. They are bad for our property values, a fire risk and dangerous for our children. They should be put in under ground.	underground, property value, wildfire, EMF.
Rachel Thomas	I am completely against having additional power lines installed above ground in San Elijo Hills. It is bad for property values, bad for the health of our children, and dangerous due to us being in a high fire zone. These lines should be installed underground.	Your preference for underground power lines and your concerns regarding wildfire, and property value are acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.
Aaron Thomason	I want an EIR on TL6975. Thank you.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Robin Thomason	"I want an EIR on TL6975"	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Phillip Thomison	I severely oppose this project for the following reasons: 1) Fire safety 2) Depreciation of home values 3) Overall safety of proposed above ground utility lines	Your preference for underground power lines and your opposition to, and concerns regarding, the proposed project have been acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Li Tian	We have lived in this community for nearly 15 years, and have been evacuated several times due to fire in the past. The proposed powerline will drastically increase the fire danger in our community, which has probably similar traffic congestion issue as Paradise that was completely destroyed by the Camp Fire at the end of 2018. The underground option, regardless of its cost (we hear the cost difference could be next to nothing given its direct routing and the planned road projects along that route), would help us, our 5000+ children, to have a little more piece of mind. Please help us (and help yourself to sleep better at night) knowing we have done the right thing of putting these fire and health hazardous powerline underground, and move the current/existing powerlines also underground for the safety of our community. Thank you!	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
Li Tian	Dear CPUC commissioners, We are deeply concerned about the safety of our community and the existing and new threat caused by the power lines. Cal Fire investigations have concluded that the Camp fire in 2018, the deadliest fire in history, was caused by PG&E's electric power lines[1]. Long before the conclusion was made, PG&E declared bankruptcy protection last year. It is clear now that not only the town is destroyed, but there will have no money to rebuild. The whole community is completely ruined. Before the Camp fire, Cal Fire had concluded that 12 of the Northern California wild fires in 2017 were also caused by PG&E power lines[2]. How many of such tragedies need to happen before people realize that the safest place for power lines is under the ground? For the safety of the residents, the children and the future of California, shouldn't we make it a rule that all new power lines should be buried underground? Can't we start with the one we are building? And move the existing ones down once possible? In case SDG&E is arguing the alternative remedies, such as power blackout during hot and windy days. Last year, SDG&E blacked out the power two times with each lasting for a day or two. While this may be manageable for once or twice a year, it is clear that such incidents are on the rise. As the progression of global warming, the dry hot winds from the desert is certain to be stronger, last longer, and occur more frequent year after year. Soon we are going to expect week-long blackouts[3]. When will we say enough is enough? Shouldn't we act now before it is too late? Before more people loss their homes or even their life's? You have the power to stop this madness, please help us to do the right thing, so we, and you, can sleep better at night knowing you've done ther right thing!!! And talk about quality of life, because of the fires, not only the residents here have suffered physically and psychologically from the last fires and evacuations, now we are facing the devaluation of our homes and much higher insurance costs even if we could find that rare insurance provider who would still cover us. Let's work to bury the power lines underground now!!!! And become a hero to our community, and other communities around California by becoming an advocate for the right ways in building new powerlines- only build down underground!!! Best regards, Eric, Sean, Jayne, and Li Residents of Azure, San Elijah Hills Comumunity References: [1] https://www.nytimes.com/2019/05/15/business/pge-fire.html [2] https://sf.curbed.com/2018/6/8/17443508/santa-rose-napa-fire-wildfire-pge-report-findings [3] https://www.bloomberg.com/news/articles/2019-05-12/california-may-go-dark-this-summer-and-most-aren-t-ready	Your preference for underground power lines and your concerns regarding wildfire and insurance rates are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.
Li Tian	We are very concerned about our property values, and homeowners insurance that will be impacted negatively from the planned new powerlines. Please take steps to bury them underground instead!	Your statements regarding property values and homeowners' insurance are acknowledged. Please see Master Response 5, Non-CEQA Issues.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Li Tian	We have lived in this San Elijo Hills community for nearly 15 years, and have been evacuated several times due to fire in the past. Each time we prayed, on our way home, that our home was still standing. Lucky for us, our home has been fine, but many others were not. The proposed powerline will drastically increase the fire danger in our community, which has probably similar traffic congestion issue as Paradise that was completely destroyed by the Camp Fire at the end of 2018. The underground option, regardless of its cost (we hear the cost difference could be next to nothing given its direct routing and the planned road projects along that route), would help us, our 5000+ children, to have a little more piece of mind. Please help us (and help yourself to sleep better at night) knowing we have done the right thing, and you have helped the one-hundred-thousands residents here in San Marcos, of putting these fire and health hazardous powerline underground, and move the current/existing powerlines also underground for the safety of our community.	Your preference for underground power lines and concerns regarding wildfire and human health are acknowledged. Please see Master Responses 4, CEQA Process; 2, Wildfire; and 3, EMF and Operational Noise.
Li Tian	Please do not create more fire danger for our area. Please do an Environmental Impact Report. We had already had terrible impact to our community in the past years and more homes have been built and more to be built. Thank you for coming to our community to have this meeting. Please help us to stop this powerline.	Your request for an EIR and concern regarding wildfire is acknowledged. Please see Master Response 4, CEQA Process and 2, Wildfire.
Stefan Torriani	Please prepare an EIR so viable alternatives can be thoroughly considered	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Irene Totten	Dear CPUC, After attending this afternoon's meeting, I am disheartened by the lack of consideration of people's lives and the threat to their property value. I insist that there be an EIR that includes the fact that human beings are part of the environment that will be negatively impacted by SDG&E's current plan. Power lines in California should be required by law to go underground. It makes absolutely no sense, in this extremely high fire hazard community to, literally, add fuel to the fire that threatens our lives daily. Please help our community avoid disaster and deny SDG&E's current plan. Thank You, Irene Totten P.S.	Your preference for underground power lines and concerns regarding wildfire and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.
Irene Totten	I am a resident whose backyard exists under the looming metal tower that SDG&E erected instead of reducing our risk of fire and exposure to EMF radiation as well as preserving the aesthetic of the nature preserve by burying the power lines underground. I am vehemently opposed to the construction of an adjacent power tower and lines that will be 50 feet closer to my home. SDG&E had a planned outage during high wind last fall and turned off the power because it was too dangerous in our high fire hazard area. We have been here for almost 17 years and just learned that our next door neighbor had a ding in her property appraisal to the tune of $40,000! I can only imagine the decrease in our property value and personal safety if SDG&E is allowed to build, yet another, adjacent set of unsightly and dangerous power lines above ground. There are other alternatives !!!!!A picture is worth a thousand words	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, human health, and property value are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues
Josefina Traslavina	DEAR SDGE, i am concerned about the new power lines that might be installed into san elijo hills in San Marcos CA. The power lines can cause cancer and other health problems. With the rising cancer statistics in the US I want to prevent this from happening in our community. In addition, this area has had high home values and many in the community has paid a premium for the views and location of their homes. We do not want decreasing home values. In addition, these SDGE lines are a fire hazard in an already fire zone. We do not want SDGE to be in extreme liability if they were to cause a fire. Let's be safe, proactive and a part of this community by making the correct decision and put these lines underground.	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, human health, and property value are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Geraldine Trinidad	I strongly oppose the installation of additional above ground electrical poles that will run through our community. San Elijo is already a high fire danger zone and additional above ground electrical poles will add to our community's fire danger. I understand that underground installation will be more costly up front but it is a long term investment that will require less maintenance in the long run.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
Irene And Clark Trotten	I want an EIR on TL6975!!!! As we have seen in the last year, There is no such thing as a safe, above ground power line. My home is underneath the current above ground monstrosity and has already decreased in value because of the giant, humming metal pole with multiple high voltage power lines that loom. I Cannot image any feelings of safety for my family if you allow SDG&E to erect yet another giant pole 30-50 feet closer to my home. Not only do we live in a "very high fire risk " zone, but we also live in an area prone to earthquakes. When the "big one hits", and it will eventually, both of these poles are poised to fall directly on my home or in the dry brush behind it. It has already been proven that EMF radiation contributes to childhood leukemia and who knows what else. My family sleeps on the second floor right next to these high voltage power lines and I am fearful about the long-term effects of exposure to radiation such as this. I am downright TERRIFIED for more above ground lines to go in. In a perfect world, I would also like the existing lines undergrounded. This community has only two roads to escape disaster and hundreds, if not thousands are at risk of dying because we are surrounded by above-ground power lines with only two options for escape. Please help our community from becoming even more dangerous and please protect our property values from plummeting at the hands of SDG&E.	Your preference for underground power lines and concerns regarding property values, noise, wildfire, and human health are acknowledged. Please see Master Responses 4, CEQA Process; 5, Non-CEQA Issues; 3, EMF and Operational Noise; and 2, Wildfire. See Appendix B.2 for comment attachments.
Marla Trussell	I am resident of San Elijo Hills. I believe that the new power line plan will negatively impact our home values. I lived through the most recent fires Cocos 2014. We have all seen the effects of power lines, and when not maintained, have deadly outcomes. (Paradise Fire 2018j. The egress from San Elijo Hills is already overburdened and residents are at great risk of injury and death in emergency situations. I am requesting that the CPUC require a FULL EIR from SDGE. Furthermore, i am requesting that the CPUC require the new lines be below ground. Below ground lines are safer and will preserve the pristine beauty of our community.	Your preference for underground power lines and concerns regarding wildfire and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.
Alison Tunney	Please look to alternatives to adding more power lines! An EIR needs to happen so alternative methods for adding new power lines will at least be investigated. This feels very dangerous as we are a community in an area with a high wild fire risk. Adding more lines only increases that risk- both from downed lines starting fires but also from power outages. The only way to mitigate the risk of wild fires is to turn off the power in high risk situations, like high winds. That is not a solution or viable option! No access to power for possibly days or even a day is still putting people at risk. An alternative plan must at least be considered. These power lines run directly by 2 schools and could possibly greatly effect accessibility to escape routes not only for the children but the entire community as San Elijo Hills is almost a completely enclosed community with no access in or out except through San Elijo Rd. Thank you.	Your preference for underground power lines and concerns regarding wildfire and evacuation routes are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process
Alison Tunney	In high wind/high fire risk areas, it is imperitive that alternate tranmsission lines be considered. Underground lines should be a priority. Again tis is a high risk area, why add to that risk? Where is the cost analysis of additing underground lines? My understanding is that there coulkd be a shorter line, that is more direct as opposed to adding to and expanding existing lines I have seen the expansion lines in Vista along Melrose Drive. Not only are they ugly but the height that they raised to and the number of lines added has myself and others concerned about what will happen in our area. Has a thorough review been done on the fire safety and firefighter access points? Not inly are fallen lines a fire risk but if there is a wildfire can fire fighters protect all those powerlines from damage. Shouldn’t alternatives be available Ii.e. underground lines) so that in case of emergency all lines wont need to be shut down? Thank you	Your preference for underground power lines and concerns regarding wildfire, alternatives, and aesthetics are acknowledged. Please see Master Responses 4, CEQA Process; 1, Aesthetics; and 2, Wildfire. Refer to Section 3.15, Public Services and Section 3.20, Wildfire in the Draft IS/MND for discussion on emergency response and fire safety.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
James Tunney	Please consider the new proposed power line route to go underground. I request an EIR to consider other options than adding more lines. I feel this is unsafe for our community. These lines already cross San Elijo Rd, possibly restricting access in a case of emergency. Recently the water main went out under San Elijo Rd causing one side to be completely shut down. This was less than 1 mi. from the turn to get to our house and my wife had to turn around and go the other way around to access San Elijo Rd from the opposite side. This took 30 minutes in the middle of the day in a non-emergency situation. Imagine if there was also an evacuation in effect. Adding more above ground lines is not the answer and truthfully pre-existing lines going over the road, at least, should be moved underground as well as adding more accessibility roads to get out of the neighborhood in case of an emergency. Thank you.	Your preference for underground power lines, request for an EIR, and concerns regarding wildfire. Please see Master Responses 4, CEQA Process and 2, Wildfire.
Heather Ulz	I was surprised and appalled at SDG&E's request to install new overhead power lines for a number of reasons. While I understand that overhead power lines have been in our community since the community was developed, I thought that SDG&E's newest project goes against all advancements that they have taken in neighboring communities - burying the power lines. Instead over the last several years the poles have gone from smaller poles, to larger, and now are being replaced by monstrosities. Our area is prone to high winds, has previous incidences of burns on the surrounding hills and several neighbors have had power lines close to their houses spark and start fires next to their property. In the last 5 years we have been evacuated twice and watched neighboring hillsides burn. While there doesn't appear to be any easily found data corroborating the claim of many neighbors, our community seems to have a high incidence of diagnosed cancers. I believe this will be proven as such in the future. I am requesting that the proposed power lines be buried at a bare minimum and that SDG&E be additionally mandated to perform an Environmental Impact Report. I attended one of the two CPUC meetings held for our community and could not believe the supposed findings that somebody actually made. Had that person/people been part of our community, I believe that we would not be having this discussion and SDG&E would be required to act for the right of our and neighboring communities and this would be a non-issue. Thank you.	Your preference for underground power lines, request for an EIR, and concerns regarding wildfire and human health are acknowledged. Please see Master Responses 4, CEQA Process; 2, Wildfire; and 3, EMF and Operational Noise.
Robert Ulz	It's about time for SDGE to bury their power cables. The risk of fire from overhead cables it too great. Recent history has shown us this. The lack of safety egress routes in the area is too great to have the lines overhead in the the San Marcos/San Elijo area.	Your preference for underground power lines is acknowledged. Please see Master Response 4, CEQA Process
Chaitanya Vadlamani	Having power lines above the ground causes a huge risk of wild fire, health risks to our young children (and to everybody in general) and last but not the least the property values diminish drastically which will cause a huge ripple effect in the economy.	Your preference for underground power lines and your concern regarding wildfire, human health, and property value are acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.
Shilda Vafaei	I am a resident in the city of San Marcos, (San Elijo Hills community). Based on the recent fires near my home, and the fire that cost the lives of at least 86 people in Northern California…due to electrical lines, I want the TL6975 project to conduct an environmental impact report in order to study who will be impacted by the proposed above ground electrical lines and determine if it would pose a public safety issue. Thank you Shilda Vafaei	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process. See Appendix B.2 for comment attachments.
Shilda Vafaei	The proposed power lines increase the existing magnetic fields in residential areas which in turn increase the risk and development of cancer. As a result residents are exposed to this unnecessary health risks when the lines can be simply barried this reducing these serious and costly health problems. Further as a realtor I can list countless clients whom refuse to purchase homes in these areas for this very reason relating in decreased property values for all homeowners. Its unreasonable to jeopardize the health and safety of our residents in order for the utility companies in this case SDGE to save on costs.	Your preference for underground power lines and your concerns regarding EMF and property values are acknowledged. Please see Master Responses 3, EMF and Operational Noise; and 5, Non-CEQA Issues.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Andrew Vaino	Why has no environmental assessment been done on this project? SDGE powerlines have a clear history of starting devastating wildfires which, in San Elijo hills (surrounded as it is with vegetation and few exit routes) would be devastating and likely lead to substantial loss of life. This seems boldly irresponsible and an explanation of why this was not done should be provided.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
Bridgette Valenzuela	Please provide an Environmental Impact Report.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Ron Van Asperen	I oppose the power-line expansion plan for San Elijo Hills. There is an alternative: put them into the ground. The risks to people, animals, vegetation and home values when putting the lines above the ground are too significant to ignore. Please leverage every bit of your abilities to stop these deadly lines from going up in SEH. Thank you very much! Ron van Asperen	Your opposition to the proposed project and preference for underground power lines or another alternative is acknowledged. Please see Master Response 4, CEQA Process
Chris Van Hamersveld	Not only will these lines have a negative impact on our property values, they will be very close to our house, exposing our family and neighbors to health risks, including cancer, and an extreme fire risk due to the high voltage transmissions. We have been through several evacuations due to fast moving wild fires caused by SDG&E above-ground lines. We have had friends lose their homes. As SDG&E subscribers, we are appalled that they would even consider such a project when they should be looking at running the lines underground. Last year, they even turned off our power during high winds because they built their lines above ground. This is unacceptable. We are fully reliant on SDG&E for our power to our detriment and we are gravely concerned that they will continue to turn off our power in windy conditions when we most desperately need access to news about fires and evacuation orders. It is not only very irresponsible and negligent that they now propose additional above-ground lines, but a very real life threatening proposal they are making. If CPUC approves this project, they are just a culpable in the event of a wild fire disaster for property loss, injury, or death caused by these lines.	Your preference for underground power lines and concerns regarding wildfire, human health and property values are acknowledged. Please see Master Responses 2, Wildfire, 3, EMF and Operational Noise; and 5, Non-CEQA Issues
Chris Van Hamersveld	I understand there is a question as to the environmental impact. As someone who is out on trails many times a month, I certainly hope this project is completing an Environmental Impact Report. I have heard rumors that this step may be skipped and that would be a tragic mistake for the natural lands around our community. In addition to the beautiful plant life in this area, we often see and hear the many animals that call this their home including coyotes, snakes, rabbits, frogs, birds, bees, and many more. Our trails and natural lands are a vital part of our community, contributing to our quality of life, and adding to the value of our property. The natural lands are one of few primary reasons for our choice of living in San Elijo and should not be diminished by a compromised project of aerial power lines, or worse, a destructive project that does not take into consideration the damage to the environment without an EIR.	Your support for an EIR and concern regarding trails and wildlife are acknowledged. Please see Master Response 4, CEQA Process and Section 3.4, Biological Resources.
Tina Van Hamersveld	I am very much in disagreement to this project! I feel it is unsafe for for families of SEH who are at already an extreme risk of fire danger. Please reconsider to put these power lines underground. Thank you!	Your preference for underground power lines and your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire; and 4, CEQA Process.
David Vancelette	Please complete an EIR. And do not construct high voltage towers any closer to houses in the Rancho Dorado neighborhood (Meadowlark - Melrose). Thank you	Your preference for underground power lines or another alternative is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process
Cindi Vargo	We need an Environmental Impact Report (EIR).	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Maria Vassilakis	Adding overground power lines to our city is irresponsible, financially wasteful, and potentially deadly. The area in question has the highest fire risk in the county. Most land, property, and human life loss due to fire in CA has historically been caused by traditional power lines. Several CA power companies, including SDG&E, are retrofitting existing overground lines replacing them with underground lines. Why would anyone build new overground lines. The additional cost of $30-60mil to build the lines underground vs overhead is negligible compared to the hundreds of millions the eventual fire will cost SDG&E (property and life loss insurance claims) and the additional $100mil it will cost to eventually replace the overhead lines you are planning with underground ones.	Your preference for underground power lines is acknowledged. Please see Master Responses 2, Wildfire; 4, CEQA Process, and 5, Non-CEQA Issues.
Pantelis Vassilakis	RE: CPUC SDG&E San Marcos to Escondido TL6975 69kV Project Thank you for the opportunity for input and for the extensive information shared. After reviewing the key requests for information and the relevant responses, I would like to add the following comments: 1) Degree of fire risk The project team does not seem to fully appreciate the existing degree of fire risk at the area in question. Our area is rated at the top of SD County's fire risk regions and housing is uninsurable, except by loan sharks. The very fact that insurance does not want our money is a clear marker of the risk involved. 2) Fire risk and power lines While power lines are not the top cause for fires in the state, they are at the top 3 of causes resulting in the largest area and financial damage. Adding overground power lines to this area ~doubles the fire risk at an area that is already a high risk and has historically been known to support rapid and uncontrollable fire spread. 3) CA power line projects Underground systems are twice as expensive to install and (without the appropriate technology) harder to troubleshoot and access for repairs than overground systems. Paying out for thousands of lawsuits for loss of life and subsequently being forced to retrofit overground lines as underground is even more expensive. Power line installation cost is a valid issue. However, placed against taking the lives of the people who are supposed to be served by this installation, it becomes a non issue. Please continue to explore alternatives to essentially hanging fire strings on sticks, susceptible the the elements and subjecting the humans these firecracker sticks are supposed to serve to eminent danger. Thank you	Your preference for underground power lines and your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire; and 4, CEQA Process
Pantelis Vassilakis	Adding overground power lines to our city is irresponsible, financially wasteful, and potentially deadly. The area in question has the highest fire risk in the county. Most land, property, and human life loss due to fire in CA has historically been caused by ovrground power lines. Several CA power companies, including SDG&E, are retrofitting existing overground lines replacing them with underground lines. Why would anyone build new overground lines. The additional cost of $30-60mil to build the lines underground vs overhead is negligible compared to the hundreds of millions the eventual fire will cost SDG&E (property and life loss insurance claims) and the additional $100mil it will cost to eventually replace the overhead lines you are planning for, with underground ones.	Your preference for underground power lines is acknowledged. Please see Master Responses 2, Wildfire; 4, CEQA Process, and 5, Non-CEQA Issues.
Namita E Veloy	Serious concerns about this project in a fire prone and residential area.	Your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire
Alesia Verruso	I live in Rancho Dorado and I'm completely against any more above ground power lines. There needs to be an environmental report done. I'm already concerned with the current ones and fire safety and even more EMFs. Also the asthetics are terrible. Gigantic unpainted gray poles!	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, and human health, are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; and 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Michelle Vetlesen	Please do an EIR first!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Beatriz Virues	No estoy de acuerdo, porque afecta a la vista, a la ecologia y eso se vere reflejado en la plusvalia de la zona (English Translation: *I do not agree, because it affects the view, the ecology and that will be reflected in the surplus value of the area*.)	Your statements and concerns regarding aesthetics, ecology, and property value are acknowledged. Please see Master Responses 1, Aesthetics and 5, Non-CEQA Issues. For all other concerns regarding ecology refer to Section 3.4, Biological Resources in the Draft IS/MND.
Katherine Von Berg	Adding power lines above ground pushes the cost to the affected neighborhoods in the form of decreased values for the homes. The right thing to do is allow ALL ratepayers to share the cost burden by providing underground construction. I understand the desire to reduce costs on the project - but the cost burden is clearly and unfairly taxing those homes and neighbors near the lines. While I am on the top of the hill - neighborhood values have a ripple affect, and we will have a reduction in our home value as a result. Let the shareholders or ratepayers share the impact - not our neighborhood. Thank you.	Your statement regarding property values, and your preference for underground power lines is acknowledged.
Mumtaz Vora	Please prepare an EIR so viable alternatives can be thoroughly considered	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Angelica W.	The construction of new power lines in an area is hazardous to many people in this area/community. Not only does the radiation given off by this harmful structure effect the lives of nearby residents, it is also a great fire hazard and can deal quite a bit of damage if sparked. Do you really think it is worth putting lives in danger for the convenience of others? Do you really think the accessibility of others is more important than the health of the residents around this area? Children are also a part of this community. It is not reasonable to install these power lines and affect the future of the young. I am a student of San Elijo Middle School, and quite a few others are too. My future is still to come, I am still quite early on in my life, and so are many others. Our future will not be affected by power lines that are more harmful then beneficial. My parents did not pay for a nice house only to face an annoying power line that affects our life tremendously, they did not pay to argue against installing a power line that has a definite and obvious answer that many people stand by and agree with, NO! The goal of occupying this nice community is to live a good life, have good education, and stay healthy, which is all defied by installing these structures. We don't need to argue against something that is obviously harmful and bad. Kids obviously can't go to school if their health is in bad condition. And most of all, why install it here? There are alternative options such as placing them underground. It might be a little inconvenient to construct then, but the benefits increase much more dramatically. It is less of a health hazard, it is also less of a fire risk, and STILL PROVIDES POWER! WOW! MIND BLOWN! *KABOOM!!!* I hope you reconsider what your actions are. Nothing is worse than doing something then regretting it soon after. You'll thank me later. ;)	Your preference for underground power lines and concerns regarding wildfire and human health are acknowledged. Please see Master Responses 2, Wildfire, and Master Response 3, EMF and Operational Noise.
Jennifer Waldron	Please no more above ground power lines!! They are a fire hazard and health hazard.	Your concerns regarding wildfire and human health are acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process.
Jennifer Waldron	I think an EIR is necessary!! I want the report. Thank you!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Guy Walker	Please conduct an EIR on SDG& Es project.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Heather Walker	I live in San Elijo Hills, we bought our house back in 2007. A few months after we moved in while we still had boxes laying around we were evacuated. A few years ago, I waited in line for an hour watched the black smoke on the other side of the hill grow closer and larger. When we were finally moved out I wondered if I would ever see my house again. Please do not continue to put above ground lines into areas where fire is so easily started. I would really like to avoid driving back into SEH one day and seeing nothing but charred buildings. Thank you.	Your preference for underground power lines and your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire; and 4, CEQA Process.
John Walker	Please make sure you have run a proper EIR and also completed and reported the EMF testing. The power lines needs to be built in a responsible way that does not harm the people of SEH or ruin property values.	Your preference for underground power lines and concerns regarding human health and property values are acknowledged. Please see Master Responses 2, Wildfire, 3, EMF and Operational Noise; and 5, Non-CEQA Issues.
Vicki Wallace	I am very worried about the safety of my family and community. I want an EIR (Environmental Impact Report) completed. The health and safety of my community is at risk.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Dan Walters	Perform an EIR. Do what is fair for the rate payers in Rancho Dorado. SDG&E has no competition. We can't let them take advantage of our community.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Jennifer Wang	Dear CPUC, Thank CPUC for coming down to hear our concerns regarding Escondido TL6975 69kV Project. Our community has the strong feelings and serious concerns about this SDGE above-ground powerline project. The residents of our community would like to know (1) Environmental Impact Report, (2) Wildfire Hazard Impact Analysis and (3) EMF output if new powerlines will be added and its related health hazards. Our community is located in high-risk fire zone and fully packed with the houses, two elementary and one middle schools, but only two roads head out. We had fire threat in the past. New powerlines will add more fire risks (sparkle from the transformer, Santa Anna winds each year). In addition, it exposes more radiation to the whole community, devalues our property and increases homeowner insurance etc. SDGE underground project proposal may be a better substitute to eliminate all these potential risks (fire, radiation, health, environment) as well as to ease the community anxiety. Please consider the significant impact of Escondido TL6975 69kV Project on our community. Thank you. Best, Jennifer	Your preference for underground power lines and your concerns regarding wildfire, human health, insurance, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues
Kyle Wang	Prepare an EIR so alternatives such as undergrounding can be considered that will significantly reduce the effects on the environment. It is worth the additional cost to not increase our wildfire risk, or to not destroy the aesthetics of our beautiful neighborhood, or to not cause millions of dollars to be lost in property values.	Your preference for underground power lines and concerns regarding wildfire, aesthetics, and property values are acknowledged. Please see Master Responses 1, Aesthetics, 2, Wildfires, 5, Non-CEQA Issues. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.
Ping Wang	No NEW Power Line Poles In Our Community!	Your preference for underground power lines is acknowledged. Please see Master Response 4, CEQA Process
Susan Wang	We strongly oppose this being built above ground where it increases the danger of wildfires and adversely affects home values. Why aren't we exploring underground options?	Your concerns regarding wildfire and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Yanxin Wang	Please conduct EIR review. This will become a fire hazard during the dry seasons. Giving how crowded San Elijo Hills are, and it will become a very difficult to evacuate if there is a fire due to the power lines. If there is an alternative, buried the power lines underground would it be a much safer way.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process.
Jennifer Wang	Thank CPUC for coming down to hear our concerns regarding Escondido TL6975 69kV Project. Our community has the strong feelings and serious concerns about this SDGE above-ground powerline project. The residents of our community would like to know (1) Environmental Impact Report, (2) Wildfire Hazard Impact Analysis and (3) EMF output if new powerlines will be added and its related health hazards. Our community is located in high-risk fire zone and fully packed with the houses, two elementary and one middle schools, but only two roads head out. We had fire threat in the past. New powerlines will add more fire risks (sparkle from the transformer, Santa Anna winds each year). In addition, it exposes more radiation to the whole community, devalues our property and increases homeowner insurance etc. SDGE underground project proposal maybe a better substitute to eliminate all these potential risks (fire, radiation, health, environment) as well as to ease the community anxiety. Please consider the significant impact of San Marcos to Escondido TL6975 69kV Project on our community. Thank you.	Your request for an EIR, preference for underground power lines, and concerns regarding wildfire, human health, property values, and insurance are acknowledged. Please see Master Responses 4, CEQA Process; 2, Wildfire; 3, EMF and Operational Noise; and 5, Non-CEQA Issues.
Ping Wang	No NEW Power Line Poles In Our Community!	Your opposition to the proposed project is acknowledged.
Scott Wariner	I strongly oppose this power project due to the serious health concerns with an increase in EMF, coupled with the increased fire hazard and potential loss of life and property with this expansion. I live directly underneath the power lines, and this will directly impact my family including my two children of 3 and 5 years of age.	Your opposition to the proposed project and your concern regarding human health are acknowledged. Please see Master Response 3, EMF and Operational Noise.
Scott Wariner	Please conduct an EIR (Environmental Impact Report)	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Scott, Madalyn, Ella, & Gunnar Wariner	I, Scott Wariner head of the household with a wife and two small children of 3 and 6, vehemently oppose this project. Our house, 2171 Coast Ave., San Marcos, CA sits literally underneath the large power lines that were installed in 2008/9. The risk to the community far outweigh the benefits to SDG&E. This does not warrant an expansion at any level for above ground power lines. Given the most deadly and costly wildfires in California history - that were started by power companies, the increased EMP exposure with the potential health threats (especially to children according to the National Cancer Society), the decreased value of our land and surrounding areas, with the environmental impact to wildlife and potential endangered species this project should not be approved. I suggest that we look at other alternatives for the SDG&E network.	Your opposition to the proposed project, preference for alternatives, and concerns regarding wildfire, human health, property values, and wildlife are acknowledged. Please see Master Responses 4, CEQA Process; 3, EMF and Operational Noise; 5, Non-CEQA Issues; and 2, Wildfire. For all other concerns regarding wildlife, refer to Section 3.4, Biological Resources in the Draft IS/MND.
Derek Washington	Hi, please stop the install of power lines. They are a noise hazard, health hazard, and devalue properties. They can also cause fires and many of us have already been dropped by our insurance companies are not insurable due to fires.	Your opposition to the proposed project and concerns regarding noise, human health, property values, and wildfires are acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; and 5, Non-CEQA Issues.
Jordi Washington	Hi, I'm a 1st grader. Please power lines don't go up! My parents say they cause cancer, noise and can lower property values. San Diego is already a place where property values are not rising as fast as other places. stop the installation of power lines.	Your opposition to the proposed project and concerns regarding human health, noise, and property values are acknowledged. Please see Master Response 5, Non-CEQA Issues; and 3, EMF and Operational Noise.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Noah Washington	Hi I'm a 3rd grader and I want to prevent the power lines from being installed. I know they cause cancer and our generation is growing up in a world that has rapid rates increasing of cancer. I want to grow up in a world that will see declining rates of cancer because companies are thoughtful in the way they put out product to the buyers. Please be thoughtful.	Your opposition to the proposed project and concerns regarding human health have been acknowledged. Please see Master Response 3, EMF and Operational Noise.
Susan Watanabe	We are against the above ground power lines due to the increased risk of wildfires and negative impact to our property values. To call the impact less than significant is a joke. We want you to do the EIR and explore underground options. Saving money by putting lives at risk is not ok.	Your concerns regarding wildfire and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire; 4, CEQA Proces; and 5, Non-CEQA Issues.
Joyce Watts	Please conduct an EIR on SDG&E's project. It is critical for the community.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Paige Weeber	I want an EIR	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Lihong Wei	Dear CPUC commissioners, We are deeply concerned about the safety of our community and the existing and new threat caused by the power lines. Cal Fire investigations have concluded that the Camp fire in 2018, the deadliest fire in history, was caused by PG&E's electric power lines[1]. Long before the conclusion was made, PG&E declared bankruptcy protection last year. It is clear now that not only the town is destroyed, but there will have no money to rebuild. The whole community is completely ruined. Before the Camp fire, Cal Fire had concluded that 12 of the Northern California wild fires in 2017 were also caused by PG&E power lines[2]. How many of such tragedies need to happen before people realize that the safest place for power lines is under the ground? For the safety of the residents, the children and the future of California, shouldn't we make it a rule that all new power lines should be buried underground? Can't we start with the one we are building? And move the existing ones down once possible? In case SDG&E is arguing the alternative remedies, such as power blackout during hot and windy days. Last year, SDG&E blacked out the power two times with each lasting for a day or two. While this may be manageable for once or twice a year, it is clear that such incidents are on the rise. As the progression of global warming, the dry hot winds from the desert is certain to be stronger, last longer, and occur more frequent year after year. Soon we are going to expect week-long blackouts[3]. When will we say enough is enough? Shouldn't we act now before it is too late? Before more people loss their homes or even their life's? You have the power to stop this madness, please help us to do the right thing, so we, and you, can sleep better at night knowing you've done ther right thing!!! And talk about quality of life, because of the fires, not only the residents here have suffered physically and psychologically from the last fires and evacuations, now we are facing the devaluation of our homes and much higher insurance costs even if we could find that rare insurance provider who would still cover us. Let's work to bury the power lines underground now!!!! And become a hero to our community, and other communities around California by becoming an advocate for the right ways in building new powerlines-only build down underground!!! Best regards, Residents of San Elijah Hills Comumunity References: [1] https://www.nytimes.com/2019/05/15/business/pge-fire.html [2] https://sf.curbed.com/2018/6/8/17443508/santa-rose-napa-fire-wildfire-pge-report-findings [3] https://www.bloomberg.com/news/articles/2019-05-12/california-may-go-dark-this-summer-and-most-aren-t-ready	Your preference for underground power lines and your concerns regarding wildfire and insurance rates are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Meibao Wei	我和女儿家住在San Elijo Sagewood小区已经13年之久。我们以前经常去屋子的周围山路散步。自从建起了有大又高的电线栏杆，就在小路的旁边，我们都感觉很不安全，不再愿意去散步了。有一根电线柱子就在距离我们屋子后院的10米处，每天近距离看着很粗很大很高的发出滋滋电流声响的柱子，非常得不舒服和害怕。女儿告诉我这个屋子的保险已经很难找到有保险公司愿意投保的了，不是因为后院离草丛近，而是保险公司来人现场勘察后发现电线杆距离草丛太近太密集了。我们小区好几次因为大风原因停电，给我们带来非常大的影响和不便。我们强烈呼吁电力公司以长远利益和安全考虑，重新规划电线传送方案。 (English translation: *My daughter's family and I have lived in the San Elijo Sagewood community for the past 13 years. We used to take walks on hiking trails around the house, but ever since a big transmission tower was constructed, right on the little side street, we've been feeling unsafe and have not been going on walks since. There is a power line that sits 10 feet from our backyard, as we observe from up close every day the buzzing that emits from the electric current that runs through the pole, which is unnerving and downright scary. My daughter told me that it's been difficult to find an insurance company that is willing to insure us, not because of the close proximity of our backyard and the grass(bush), but because that upon inspection completed by the insurance company, they have found that the power line (pole) sits too close to the grass(bush). Our community has experienced many blackouts due to the strong winds, and it's had an overwhelmingly negative effect as well as hugely inconvenient. We strongly urge the electric companies to assess and weigh the long-term benefits and safety concerns, and to re-evaluate the power line proposal.*)	Your concerns regarding safety, noise, insurance, and blackouts are acknowledged. Please see Master Responses 3, EMF and Operational Noise and 5, Non-CEQA Issues.
Pamela Weir	Thank you for taking our safety into account and being proactive by installing steel structures to replace the old wooden power poles. Along with replacing old insulators and circuit breakers with safer devices. Thank you!	Your support of the proposed project is acknowledged and appreciated.
Mark Weiss	Our family moved in almost 5 years ago, right after the last fire that caused a mandatory evacuation. Not only is the threat of more fires heightened by natural causes, this "addition" will only add to the potential man-made hazards that this can cause. In no way are we in favor of this increased overall unhealthy addition to our neighborhoods.	Your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire.
Heather Wellong	I am an homeowner and am demanding an EIR be completed. My family and neighbors safety and well being are at stake.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Jeff Wenger	I am requesting that an environmental impact report be conducted for Project TL6975. As a homeowner who will be directly-- and adversely-- affected by the addition of new power lines, I must beg the CPUC to direct SDG&E to consider alternatives for this project. I understand that power lines may need to be updated and expanded, but the best place for additional (and, in fact, existing) power lines is underground, not in the sky where they pose potential environmental and health risks and where they lay siege to the beauty of the natural environment that drew us to this neighborhood 15 years ago. We live in a community that insurance companies recently deemed at high risk of fires and are thus denying homeowner's coverage to; the addition of more above-ground power lines in the area is sure to give insurance companies yet another reason to deny coverage. The negative impact on our property values, as a result of these power lines, could be staggering. The humming noise that comes from the existing lines is already unnerving enough, serving as a near-constant warning about potential EMF impact and fire dangers. Yet, if the new lines were simply run underground, our community would be safer and more aesthetically appealing. Please do not allow SDG&E to further shatter the natural beauty and tranquility of our open spaces. Please require them to run any new power lines underground. Thank you.	Your preference for underground power lines and your opposition to, and concerns regarding, the proposed project have been acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.
Jennifer Wenger	I want an EIR on TL6975!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Cheri Wengronowitz	No doubt there are developers pressing to have these powerlines put above ground because it is faster and they can start making money off the new projects more quickly. Although this is true, the property values of the neighborhoods these ugly powerlines are going through will diminish in value which will take away property taxes. City Councils are probably hoping for increased revenue by doing this project above ground because it is quick. Reconsider burying them so that the new developments and the current developments will contribute to the tax revenue as opposed to diminish it.	Your preference for underground power lines and your concerns regarding aesthetics, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 4, CEQA Process; and 5, Non-CEQA Issues.
Caryn Westenberger	It is our community's hope that you consider the health, safety and well-being of the residents over time and cost.	Your opposition to the proposed project has been acknowledged.
Danny Whelan	We do not want anymore power lines in or around San Elijo Hills!	Your opposition to the proposed project and preference for underground power lines or another alternative is acknowledged. Please see Master Response 4, CEQA Process.
Heather Whelan	I would like a copy of the EIR please.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Debra Whitman	I want and EIR on TL6975	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Peter Whittet	SDG&E should be only allowed to expand the proposed power grid if they underground. The hazards that the population are being exposed to, fire, EMF, and earthquake are not acceptable!!! Housing projects are automatically under-grounded and have been for 50+ years. There is no reason to expose the people of San Marcos, the school children for generations to the hazards caused by above ground lines. Either deny this proposal or have it updated to go underground in heavily populated areas.	Your preference for underground power lines is acknowledged and concerns regarding wildfire and human health is acknowledged. Please see Master Responses 4, CEQA Process; 2, Wildfire; and 3, EMF and Operational Noise.
Rhonda Widders	Please conduct an EIR on SDGE's property. This matter is of the utmost importance to our wonderful community. While we appreciate technology and can embrace changes, we need to ensure that our wonderful community and ecosystem are preserved. There is a lot at stake, not just to our existing community but to future ones as well. Thank you!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Kathy Wieland	An Environmental Impact Report needs to be done! We have already been evacuated for a fire that was very close to our home and it's a fact that these above ground lines can and will start fires. This is not ok. These lines need to be placed underground. Please do an EIR!!	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire
James Wigdahl	Due diligence requires a full Environmental Impact Report be done so alternatives like underground transmission can be considered that will significantly reduce the effects on the environment. The question needs to be asked whether it's worth the additional cost to not increase our wildfire risk, or to not destroy the aesthetics of our beautiful neighborhood, or to not cause millions of dollars to be lost in property values. Bear in mind liability issues that can come to bear as they have with PG&E due to equipment faults.	Your concerns regarding aesthetics, wildfire, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; and 4, CEQA Process.
Emily Wilhelms	The new power lines in San Marcos need to be put underground. Not only are they hideous to look at, but they decrease property value. They can cause wild fires, and in San Elijo we are trapped if another wildfire roars through our area. They are noisy and they are not healthy to live near.	Your preference for underground power lines and your opposition to, and concerns regarding, the proposed project have been acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Jim Wilkerson	I strongly oppose this project as currently outlined: The existing powerlines run through and are adjacent to sensitive environmental habitat; scores of acres of set-aside open space (e.g. Diamond Trail TET) intended to protect the last remaining sections of native coastal sage scrub and gnatcatcher habitat in this region. Sempra states this can be mitigated during construction. However, I frequently walk the trails through their "mitigated" areas along the existing powerlines and I see no mitigation. Instead, there is barren, compacted soil, slope erosion, and an abundance of weeds choking out what had been native, fire-resistant coastal sage scrub. Please require Sempra/SDG&E to complete a comprehensive environmental review of this project. Sempra's existing powerlines at this location have already caused more than enough environmental degradation. Please save what's left!	Your opposition to the proposed project and concerns regarding biological resources is acknowledged. Please see Section 3.4, Biological Resources in the Draft IS/MND.
Drew Williams	Above ground power lines are not only unsightly, they are a danger to property and lives.	Thank you, your preference for underground power lines is acknowledged.
Drew Williams	The commnunity is against adding above ground power lines, which have shown themselve to be not just unsightly but DEADLY. Please listen to the community and do not add to the already dangerous situation. San Marcos does not have the infrastructure that would allow for a rapid evacuation in the event of a fire. And the population has increase dramatically over the past 5 years. I can only imagine the tragedy that would ensue.	Your preference for underground power lines and our concerns regarding aesthetics and wildfire. Please see Master Responses 1, Aesthetics; 2, Wildfire; and 4, CEQA Process.
Marley Williams	Rush hour traffic is a nightmare in San Marcos. Imagine a fire sparked by a power line and a paniced evacuation! You cannot add new above ground power lines and new danger to the growing population of our community. Didn't Paradise teach you anything?!	Your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire
Marley Williams	The recent finding that power lines were the cause of the Paradise fire should make everyone realize that additional above ground power lines is not only a bad idea, it is a threat to lives.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
Marley Williams	I am opposed to additional above ground power lines because an evacuation of San Marcos during a wildfire would be catastrophic. The infrastructure just doesn't support a rapid evacuations. People would die.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process.
Cathy Wills	Please provide an environmental impact study. I live in Rancho Dorado and the canyon area becomes very dry. Recent fires last year in CA were cause by electrical lines. Added more lines increases the fire risk, especially to San Elijo Hills where there are thousands of residents, several schools, and few exits. Also this decrease the property values as they are soooo ugly. Residents are willing to have electrical bill go up to have the lines grounded. So ghetto looking to put right smack in the middle of our neighborhoods and also adds to EMF exposure.	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, human health, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.
Edward Wills	I request an EIR of proposed project TL6975. I have been a Rancho Dorado resident since 2000 and I do not believe the NET CUMULATIVE EFFECT has been sufficiently reviewed. When I moved in to the home there were low-profile wooden poles with 3 power lines. Somehow the power lines have proliferated over the last 19 years. Attached is a photo of the canyon taken from my backyard in 2005, before the steel towers went up. Then a photo after 2013. Please don't make my backyard look like a shipyard! More power lines above ground = More fire hazard. All it takes is one shackle to corrode or fail just like. Nobody wins if we lose our homes due to a wildfire caused by a downed electrical line. Reference: https://www.theverge.com/2019/5/15/18626819/cal-fire-pacific-gas-and-electric-camp-fire-	Your preference for an EIR and concerns regarding aesthetics and wildfire are acknowledged. Please see Master Responses 4, CEQA Process; 1, Aesthetics; and 2, Wildfire. See Appendix B.2 for comment attachments.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Edward Wills (cont.)	power-lines-cause?fbclid=IwAR35N353XTW2oZE2PknoNWRqn_uJkjOaIdDw4v3DA0-d1G6uzEl8-LoD7Dw -Eddie Wills	
Claire Wilson	Please do not erect huge power lines near our home. It's NOT safe and it's an eyesore and a fire safety issue along with a decrease in property values! These power lines need to be underground!!!!!! Sincerely Claire Wilson	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, and property values are acknowledged. Please Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.
Diane Wilson	Please conduct an EIR to consider the value--especially for reducing the risk of wildfires--of placing these power lines underground.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process.
Matt Wilson	No more power lines!!!!	Your preference for underground power lines is acknowledged. Please see Master Response 4, CEQA Process
Michelle Wilson	please please please go u set ground with these horrendous power lines. They aren not safe and they are an eyesore and will diminish our property values and also jeopardize the safety of the residents. Please conduct more safety studies. You must go under ground! Would you like these in your back yard?!?	Your preference for underground power lines and your concerns regarding aesthetics have been acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; and 4, CEQA Process.
Janelle Winn	EIR (Environmental Impact Report) Needs to be done.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Fred Wise	A second set of lines in this location makes no sense, it doubles the risk for the young families that make up the majority of the homeowners in San Elijo Hills	Your concern is noted. Please refer to Master Response 2, Wildfire.
Alison Witt	I want an EIR Report.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Katie Witt	I understand that there is an option for underground power lines or an option that would not create additional risk to the area where these power lines are being considered. Alternative options need to be considered to minimize environmental, health and fire risk. We are already in a high fire risk area. Above ground poles were in an issue in the NorCal fires and our neighborhood had our power turned off shortly after these fires as a preventative measure. The evacuation plans for this area are not robust and the Cocos fire from 2014 made that more apparent as it took our family over an hour and a half to evacuate given the high population of people in this area at that time (and has grown since).	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process.
Lawrence Witt	This project is irresponsible. It creates additional fire dangers in an area already considered to be a high fire zone (in fact, our insurance company wouldn't revew our home owners insurance policy due to high danger fire zone). Do you remember the fires in Northern California caused by downed power lines that devastated communities and led to lots of deaths? Don't do that here. Climate change is real. It is leading to more extremes, including stronger storms, which could lead to more downed power lines. Which means more fires. During the Cocos Fire, we could barely evacuate San Elijo Hills, and now there are hundres of more homes. Don't increase our fire danger. Put these lines underground. Don't try and save a few dollars by putting lives at risk. Also more power lines will obviously lead to decreased home values and there is some evidence of potential health risks. Has an EIR been done? https://www.sandiegouniontribune.com/sdut-san-elijo-traffic-review-cocos-fire-san-marcos-2014jun07-story.html	Your concerns regarding insurance and wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire; and 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Beibei Wolfe	Please keep the wires buried underground for our communities' safety! Reference: https://www.nytimes.com/2019/05/15/business/pge-fire.html Beibei Wolfe&Matthew Wolfe Residents of Square Village, San Elijo Hills	Your preference for underground power lines is acknowledged. Please see Master Response 4, CEQA Process.
Ed Wong	Dear CPUC commissioners, We are deeply concerned about the safety of our community and the existing and new threat caused by the power lines. Cal Fire investigations have concluded that the Camp fire in 2018, the deadliest fire in history, was caused by PG&E's electric power lines[1]. Long before the conclusion was made, PG&E declared bankruptcy protection last year. It is clear now that not only the town is destroyed, but there will have no money to rebuild. The whole community is completely ruined. Before the Camp fire, Cal Fire had concluded that 12 of the Northern California wild fires in 2017 were also caused by PG&E power lines[2]. How many of such tragedies need to happen before people realize that the safest place for power lines is under the ground? For the safety of the residents, the children and the future of California, shouldn't we make it a rule that all new power lines should be buried underground? Can't we start with the one we are building? And move the existing ones down once possible? In case SDG&E is arguing the alternative remedies, such as power blackout during hot and windy days. Last year, SDG&E blacked out the power two times with each lasting for a day or two. While this may be manageable for once or twice a year, it is clear that such incidents are on the rise. As the progression of global warming, the dry hot winds from the desert is certain to be stronger, last longer, and occur more frequent year after year. Soon we are going to expect week-long blackouts[3]. When will we say enough is enough? Shouldn't we act now before it is too late? Before more people loss their homes or even their life's? You have the power to stop this madness, please help us to do the right thing, so we, and you, can sleep better at night knowing you've done ther right thing!!! And talk about quality of life, because of the fires, not only the residents here have suffered physically and psychologically from the last fires and evacuations, now we are facing the devaluation of our homes and much higher insurance costs even if we could find that rare insurance provider who would still cover us. Let's work to bury the power lines underground now!!!! And become a hero to our community, and other communities around California by becoming an advocate for the right ways in building new powerlines-only build down underground!!! Best regards, Residents of San Elijah Hills Comumunity References: [1] https://www.nytimes.com/2019/05/15/business/pge-fire.html [2] https://sf.curbed.com/2018/6/8/17443508/santa-rose-napa-fire-wildfire-pge-report-findings [3] https://www.bloomberg.com/news/articles/2019-05-12/california-may-go-dark-this-summer-and-most-aren-t-ready	Your preference for underground power lines and your concerns regarding wildfire and insurance rates are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.
Susan Wong	As a homeowner an EIR needs to be done to make sure that the proposed SDGE powerline will be safe for the neighborhood. It's is unfortunate that SDGE continues to try to develop more even more intense lines here. Thank you for reviewing our petition Susan Wong	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Brian Wood	Dear members of the CPUC, In reference to the TL6975 69kV Project, I respectfully request that you conduct an Environmental Impact Report (EIR). As a homeowner in the affected community, I would like an in-depth analysis of legitimate alternative routes such as a direct 5.25 mile underground route rather than the proposed 12 mile circuitous above-ground route. My primary concern is aesthetics and declining property values, but I am also worried about: Noise EMFs Impact on scenic and hiking trails Impact on homeowners insurance Wildfire risk due to additional above ground power lines Power outages Evacuation routes I plan on attending the local community meeting in San Marcos on April 30 and will be voicing my concerns there as well. Thank you for the good work that you do to protect both the environment and property values in California. Regards, Brian Wood	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, human health, insurance, and operational noise are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.
Mary Wood	Dear CPUC, I want an EIR on TL6975. This area has been classified as a high risk area for fire, which we saw firsthand several years ago. Many homeowners have had their fire insurance dropped or their premiums dramatically increased. In addition, should another fire strike, the San Elijo area has no way of efficiently evacuating the area with only one road running over the hill, a road which the power lines happen to go over. Not only is this area densely packed with homes, it contains three pubic schools who will hold our children onsite should a fire occur and only those of us who are able to physically get to the schools, will be able to have our children released, an almost impossible task. It really isn't a matter of if another fire occurs, but when, and seems that, based on SDGE's current situation with fires in other parts of the state, that they would want to minimize their liability in causing one of these fires and having to deal with the ramifications. In addition, these power lines are a horrible eyesore that lower home values, turn off potential buyers and create health risks. Not only do I not want new power lines, I would like the existing power lines buried. They are ridiculously close to people's homes and the new plan will move them even closer. We pay way too much in taxes and real estate prices to have SDGE do this to our community.	Your preference for underground power lines and concerns regarding wildfire, insurance, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.
Colleen Woolsey	I want an EIR on TL6975.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Frank Work	"I want an EIR on TL6975"	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Breanna Workman	These power lines need to stay away from populated neighborhoods. It will negatively impact the medical health of the communities, negatively impact property values, and increase the risk of fires.	Your concerns regarding wildfire, human health, and property value are acknowledged. Please see Master Responses 2, Wildfire; 3, EMF and Operational Noise; and 4, CEQA Process.
Grace Wu	First, please allow me to show you some of the pictures taken from our backyard, from our patio and from our cul-de-sac. The giant power pole is right behind our house. I believe no one would say "it's nothing to me" or "it doesn't matter to me" if such a pole is so close to his/her house and completely destroy such a nice view. I believe you would agree with me too if you were in my situation. Let's talk about the real matters. First, our home insurance policy has been terminated by two insurance companies within 6 months now. And we are still looking for the next insuring company. Both companies initially accepted us being insured when they checked our home surrounding area from their satellite map	Your preference for underground power lines and your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire; and 4, CEQA Process. See Appendix B.2 for comment attachments.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Grace Wu (cont.)	system. However both of them turned us down by terminating the policy after they came for on-site inspection. There is only one reason, FIRE HAZARD! Not only caused by the bush but also by the power poles. Second, every year, when the Santa Ana Wind starts blow, SDG&E often cut down the power supply in San Elijo Hills and its surrounding area for 1-3 days. Why? Because it's necessary to prevent even a small flying fiery sparks from igniting the electricity power supply lines on the power poles to cause even bigger fire hazard. So by doing this, SDG&E already knew such a risk with so dense of power lines exposed around our community. Are we expecting more darkness for every high-wind season? Why it cannot be resolved completely by burying the power lines under the ground? The Camp Fire, California's biggest wildfire, taken place in 2018 that killed 85, was caused by PG&E power lines, according to most of major medias and news sources on May 16, 2019. The wild fire is the biggest hazard in California. There is no room to tolerate more human lives loss and more properties damage because of the wildfire. Sooner or later, underground power lines will be used in California. Why bother spend more money to build up power poles and undo such a job to change to underground power lines in the future? Thank you, CPUC, for listening my comments and my real feeling from deep my heart. I believe, CPUC will always take California residence's health and safety as its highest priority. Thank you for your consideration.	
Wei Wu	Please place these power lines underground. We are concerned about the fire hazard. We have so many beautiful schools here and our kids enjoy studying here. However, the traffic is getting worse. We are worried about lacking of evacuation routes. In addition, the power lines have huge biological impact to critical and sensitive habitats. We want to protect our lovely community.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Yingzhe Wu	This is a really bad idea. I have been living in SEH community since 2001, and have seen wooden pole exchanged with bigger, taller steel pole. I have also been through two wild fires as close range as i can smell and see. Recently, I have been rejected with home insurance twice within half year, because of wild wire hazard. After seeing Town of Paradise burnt to the ground and PG&E went bankruptcy, are we still dumb and numb enough to elect 2nd set of power lines in high risk area? I urge CPUC to investigate viable alternatives and remove existing poles as well.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
Alysson Wynia	They need to do an EIR	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Julie Wynia	I am a resident of San Elijo Hills and I am appalled that more above ground power lines are being permitted to be installed through our community. With all of the fires that happen throughout CA, many of them caused by pulic utility power lines, it is amazing that anyone thinks this is a good idea. Obviously the people who approved this have no care or regard for the people who are surrounded by these power lines. My biggest concern when we bought our house here was the lack of exits out of the community in case of an emergency. I am amazed that developments are allowed to build communities this way due to the high likelihood and history of wildfires throughout CA. My only alternative fire evacuation option if I can't get out of our neighborhood by car is to grab my children and pets and run on foot to escape a fire. There is simply no other option if we are faced with an immediate evacuation and the roads are jam packed with cars. We DO NOT need the added risk of more power lines that not only cause a fire hazard, they lower ALL of our property values and emit EMF's into our community. It is ridiculous that you would rather risk people's lives and health and end up paying for it in the end than just spending some more money up front to do the right thing.	Your preference for underground power lines and concerns regarding wildfire, evacuation routes, and human health are acknowledged. Please see Master Responses 2, Wildfire, and Master Response 3, EMF and Operational Noise.
Paul Wynia	Please reconsider putting the power lines underground as they pose a fire safety risk. We live in one of the impacted neighborhoods and would essentially be trapped if one of those lines starts a fire next to our neighborhood.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Responses 2, Wildfire and 4, CEQA Process.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Paul Wynia	An EIR must be required before any work is done.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Sara Wynia	More power lines will create more fire risk. When the last big fire happened here I was at work and my family was at home. They called and told me to find a friends house to stay at because all of the roads to our house were closed off. I was blocked from going to my home for 3 days while the rest of my family was stuck in our home because if they left they couldn't go back. We had no where to take our pets so they had to stay home with them. I don't ever want to go through that again.	Your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire.
Guoliang Xiao	Wildfires cost lives and billions of dollars in California every year and power lines keep sparking wildfires. The Camp Fire just happened last year. It is one of the cases and it is the worst in California history. Shouldn't we learn a lesson from the tragedies? I noticed the TL6975 69KV Project is planning new overhead powerlines around our neighborhoods and schools in San Marcos, adding more fire risks to our communities. We don't want that happen.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
Li Yang	For the safety of the residents, the children and the future of California, shouldn't we make it a rule that all new power lines should be buried underground? Can't we start with the one we are building? And move the existing ones down once possible?	Your preference for underground power lines is acknowledged. Please see Master Response 4, CEQA Process.
George Yeh	Please conduct an EIR on SDG&E's project.	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Gavin Yellen	For the sake of our children please don't let this happen.	Your opposition to the proposed project and preference for underground power lines or another alternative is acknowledged.
Eric Yin	Stop the above ground powerline through our city and neighborhood, save our children and our homes, put them underground!	Your preference for underground power lines is acknowledged. Please see Master Response 4, CEQA Process.
Jayne Yin	Dear CPUC commissioners, We are deeply concerned about the safety of our community and the existing and new threat caused by the power lines. Cal Fire investigations have concluded that the Camp fire in 2018, the deadliest fire in history, was caused by PG&E's electric power lines[1]. Long before the conclusion was made, PG&E declared bankruptcy protection last year. It is clear now that not only the town is destroyed, but there will have no money to rebuild. The whole community is completely ruined. Before the Camp fire, Cal Fire had concluded that 12 of the Northern California wild fires in 2017 were also caused by PG&E power lines[2]. How many of such tragedies need to happen before people realize that the safest place for power lines is under the ground? For the safety of the residents, the children and the future of California, shouldn't we make it a rule that all new power lines should be buried underground? Can't we start with the one we are building? And move the existing ones down once possible? In case SDG&E is arguing the alternative remedies, such as power blackout during hot and windy days. Last year, SDG&E blacked out the power two times with each lasting for a day or two. While this may be manageable for once or twice a year, it is clear that such incidents are on the rise. As the progression of global warming, the dry hot winds from the desert is certain to be stronger, last longer, and occur more frequent year after year. Soon we are going to expect week-long blackouts[3]. When will we say enough is enough? Shouldn't we act now before it is too late? Before more people loss their homes or even their life's? You have the power to stop this madness, please help us to do the right thing, so we, and you, can sleep better at night knowing you've done ther right thing!!! And talk about quality of life, because of the fires, not only the residents here have suffered physically and psychologically from the last fires and evacuations, now we are facing the devaluation of our homes and much higher insurance costs even if we could find that rare insurance provider who would still cover us. Let's work to bury the power lines underground now!!!! And become a hero to our community, and other communities around California by becoming an advocate for the right ways in building new powerlines-	Your preference for underground power lines and your concerns regarding wildfire and insurance rates are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Jayne Yin (cont.)	only build down underground!!! -Residents of Azure, San Elijo Hills Comumunity References: [1] https://www.nytimes.com/2019/05/15/business/pge-fire.html [2] https://sf.curbed.com/2018/6/8/17443508/santa-rose-napa-fire-wildfire-pge-report-findings [3] https://www.bloomberg.com/news/articles/2019-05-12/california-may-go-dark-this-summer-and-most-aren-t-ready	
Sean Yin	Please no power lines.	Your opposition to the proposed project and preference for underground power lines or another alternative is acknowledged. Please see Master Response 4, CEQA Process.
Jean Young	I live across the street from SDG&E power lines. They run through a green belt that is about 50 yards from our house. When we bought the house 19 years ago, the power lines were held up by a wood post. But since then, a large metal pole with many wires have replaced the much shorter wooden post. Seven years ago, I applied for AAA home owners insurance, but was rejected because the green belt is considered a major fire hazard. This is the exact same green belt where SDG&E wires are located. Now SDG&E wants to add more lines that will be close to existing lines. Sometimes when I walk under the existing wire on the hiking path I hear the wires hissing. I believe adding more wires will be a danger to us, plus it has affected the esthetics of our view, and therefore the value of our home. Please bury the wires!	Your preference for underground power lines and your opposition to, and concerns regarding, the proposed project have been acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues
Jeffrey Young	I have lived at this address for almost 19 years. When we bought this home, there was a wooden pole across the street from our house about 70 yards away. In 2010 a large metal pole with many wires was put in, and we started to hear hissing noises at different times when we walked on the hiking trail under the wires. Since then, we tried to get a homeowners quote from AAA, and were denied because of the fire danger of the field across the street from us. This is the same field that the poles/wires run though. We fear the wires could arc and cause a fire in windy conditions. we have been paying high property taxes, and HOA fees to preserve our valuable home. Please do an Environmental Impact report.	Your preference for underground power lines and your concerns regarding aesthetics, wildfire, operational noise, insurance, and property value are acknowledged. Your request for an EIR is also acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues.
Cori Zammetti	Please conduct an EIR on SDG&E's project	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Tony Zariv	Please conduct an EIR on SDG&E's project. Our State has lost a lot due to miss management of utilities Management like SDG&E. We leave in dangerous times and Mother Nature is no help. City of Paradise was destroyed due to neglect of power company up North. All power lines should run under grounds.	Your preference for underground power lines or another alternative is acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process.
Jennifer Zayer	I would like an EIR!	Your request for an EIR is acknowledged. Please see Master Response 4, CEQA Process.
Le Zhan	Please place these power lines underground. We are extremely worried about wild fires. Also, it will cause the decline of our property values and the difficulty to purchase homeowners insurance.	Your preference for underground power lines and your concerns regarding wildfire, insurance, and property value are acknowledged. Please see Master Responses 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.
Eva Zhang	DearCPUCcommissioners, We are deeply concerned about the safety of our community and the existing and new threat caused by the powerlines. CalFire investigations havec oncluded that the Campfire in 2018, the deadliest fire in history, was caused by PG&E's electric powerlines [1]. Long before the conclusion was made, PG&E declared bankruptcy protection last year. It is clear now that not only the town is destroyed, but there will have no money to rebuild. The whole community is completely ruined. Before the Campfire, CalFire had conclude that 12 of the Northern California wildfires in 2017 we real so caused by PG&E powerlines [2].	Your preference for underground power lines and your concerns regarding wildfire and insurance rates are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Eva Zhang (cont.)	How many of such tragedies need to happen before people realize that the safest place for powerlines is under the ground? For the safety of the residents, the children and the future of California, shouldn't we make it a rule that all new powerlines should be buried underground? Can't we start with the one we are building? And move the existing ones down once possible? In case SDG&E is arguing the alternative remedies, such as power blackout during hot and windy days. Last year, SDG&E blacked out the power two times with each lasting for a day or two. While this maybe manage able for once or twice a year, it is clear that such incidents are on the rise. As the progression of globalwarming, the dry hot winds from the desert is certain to be stronger, last longer, and occur more frequent year afte ryear. Soon we are going to expect week long blackouts [3]. When will we say enough is enough? Shouldn't we act now before it is too late? Before more people loss their homes or even their life's? You have the power to stop this madness, please help us to do the right thing, so we, and you, can sleep better at night knowing you've done the rright thing!!! And talk about quality of life, because of the fires, not only the residents here have suffered physically and psychologically from the last fires and evacuations, now we are facing the devaluation of our homes and much higher insurance costs even if we could find that rare insurance provider who would still cover us. Let's work to bury the powerlines underground now!!!! And become a hero to our community, and other communities around California by becoming an advocate for the right ways in building new powerlines- only build down underground!!! Best regards, Eva	
Haiping Zhang	Dear CPUC, Please conduct an EIR on SDG&E's project 我的女儿家住在SEH，近些年我每年过来美国和他们相聚。我也非常喜欢这里，可是San elijo road越来越堵，高压电越来越危险，我真的很担心她和她的家庭。高压电埋入地下是大势所趋，千万不能再加更多了，现有的也应该埋入地下，这个是要命的大事啊…… 谢谢， Haiping Zhang Haiping Zhang (English translation: *My daughter's family lives in SEH, and recently I would visit them every year. I like the area that they live in very much, but the traffic on San Elijo Road gets worse by the day, not to mention the danger posed by the transmission towers. I'm really concerned for her and her family's safety. The ongoing trend seems to lie with Underground Transmission, but we must not add to what we already have, but at the same time working to convert all current system into underground transmission. This is something that's critical and could have life-changing impacts…Thanks. Haiping Zhang*)	Your preference for underground power lines and concerns regarding safety are acknowledged. Please see Master Responses 4, CEQA Process.
Xijuan Zhang	PLEASE STOP!!! PLEASE DO NOT TAKE ANY ACTION TO BUILD HIGH-TENSION CABLE!!! It probably cause a lot of problems, wild fires, property values, homeowners insurance, trail enjoyment, humming noise, EMFs, power outages, lack of evacuation routes, biological impact to critical and sensitive habitats.	Your preference for underground power lines and your opposition to, and concerns regarding, the proposed project have been acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 3, EMF and Operational Noise; 4, CEQA Process; and 5, Non-CEQA Issues. For all other concerns regarding wildlife/trails refer to Section 3.4, Biological Resources or Section 3.16, Recreation in the Draft IS/MND.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Yi Zhao	We are deeply concerned about the safety of our community and the existing and new threat caused by the power lines. Cal Fire investigations have concluded that the Camp fire in 2018, the deadliest fire in history, was caused by PG&E's electric power lines[1]. Long before the conclusion was made, PG&E declared bankruptcy protection last year. It is clear now that not only the town is destroyed, but there will have no money to rebuild. The whole community is completely ruined. Before the Camp fire, Cal Fire had concluded that 12 of the Northern California wild fires in 2017 were also caused by PG&E power lines[2]. How many of such tragedies need to happen before people realize that the safest place for power lines is under the ground?	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Your request for an EIR is also acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
Yi Zhao	And talk about quality of life, because of the fires, not only the residents here have suffered physically and psychologically from the last fires and evacuations, now we are facing the devaluation of our homes and much higher insurance costs even if we could find that rare insurance provider who would still cover us. Let's work to bury the power lines underground now!!!! And become a hero to our community, and other communities around California by becoming an advocate for the right ways in building new powerlines- only build down underground!!!	Your preference for underground power lines and concerns regarding wildfire, property value, and insurance are acknowledged. Your concer Please see Master Responses 2, Wildfire, 4, CEQA Process; 5, Non-CEQA Issues.
Yi Zhao	For the safety of the residents, the children and the future of California, shouldn't we make it a rule that all new power lines should be buried underground? Can't we start with the one we are building? And move the existing ones down once possible?	Your preference for underground power lines is acknowledged. Please see Master Response 4, CEQA Process.
Yi Zhao	In case SDG&E is arguing the alternative remedies, such as power blackout during hot and windy days. Last year, SDG&E blacked out the power two times with each lasting for a day or two. While this may be manageable for once or twice a year, it is clear that such incidents are on the rise. As the progression of global warming, the dry hot winds from the desert is certain to be stronger, last longer, and occur more frequent year after year. Soon we are going to expect week-long blackouts[3]. When will we say enough is enough? Shouldn't we act now before it is too late? Before more people loss their homes or even their life's? You have the power to stop this madness, please help us to do the right thing, so we, and you, can sleep better at night knowing you've done ther right thing!!!	Your concern regarding safety and power blackouts are acknowledged. Please see Master Response 2, Wildfire and 5, Non-CEQA Issues.
Dan Zhou	Our area is highly populated and with high risk of wild fire. Our surrounding hills are fully packed with dry bushes and plants in summer and fall, which is very dangerous in the Santa Anna season, such risk increases traumatically with on-ground high voltage electric lines. Please move all the power lines to underground. Thank you, Dan	Your preference for underground power lines and your concerns regarding wildfire are acknowledged. Please see Master Response 2, Wildfire
Daniel Zhou	Dear CPUC commissioners, We are deeply concerned about the safety of our community and the existing and new threat caused by the power lines. Cal Fire investigations have concluded that the Camp fire in 2018, the deadliest fire in history, was caused by PG&E's electric power lines[1]. Long before the conclusion was made, PG&E declared bankruptcy protection last year. It is clear now that not only the town is destroyed, but there will have no money to rebuild. The whole community is completely ruined. Before the Camp fire, Cal Fire had concluded that 12 of the Northern California wild fires in 2017 were also caused by PG&E power lines[2]. How many of such tragedies need to happen before people realize that the safest place for power lines is under the ground? For the safety of the residents, the children and the future of California, shouldn't we make it a rule that all new power lines should be buried underground? Can't we start with the one we are building? And move the existing ones down once possible? In case SDG&E is arguing the alternative remedies, such as power blackout during hot and windy days. Last year, SDG&E blacked out the power two times with each lasting for a day or two. While this may be manageable for once or twice a year, it is clear that such incidents are on the rise. As the progression of global warming, the dry hot winds from the desert is certain to be stronger, last longer, and occur more frequent year after year. Soon we are going to expect week-long blackouts[3]. When will we say enough is enough? Shouldn't we act now before it is too late? Before more people loss their homes or even their	Your preference for underground power lines and your concerns regarding wildfire and insurance rates are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; 4, CEQA Process; and 5, Non-CEQA Issues.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Daniel Zhou (cont.)	life's? You have the power to stop this madness, please help us to do the right thing, so we, and you, can sleep better at night knowing you've done ther right thing!!! And talk about quality of life, because of the fires, not only the residents here have suffered physically and psychologically from the last fires and evacuations, now we are facing the devaluation of our homes and much higher insurance costs even if we could find that rare insurance provider who would still cover us. Let's work to bury the power lines underground now!!!! And become a hero to our community, and other communities around California by becoming an advocate for the right ways in building new powerlines-only build down underground!!! Best regards, Daniel Residents of Promontory Ridge, San Elijo Hills Comumunity References: [1] https://www.nytimes.com/2019/05/15/business/pge-fire.html [2] https://sf.curbed.com/2018/6/8/17443508/santa-rose-napa-fire-wildfire-pge-report-findings [3] https://www.bloomberg.com/news/articles/2019-05-12/california-may-go-dark-this-summer-and-most-aren-t-ready	
Jing Zhou	As increased wild files occurred in California and our local area, we are deeply concerned the safety of our community of San Elijo and threat caused by the existing power lines. Instead of replacing the existing above ground power lines, we request to build new power lines only down underground.	Your preference for underground power lines and concerns regarding wildfire are acknowledged. Please see Master Response 4, CEQA Process, and Master Response 2, Wildfire.
Jing Zhou	With the concern of increased wire fires in California and our local areas, we oppose the current proposal of San Marcos to Escondido Tie Line (TL 6975) 69kV Project, and strongly suggest new power lines are built underground to prevent from a trigger of wild fires.	Your opposition to the proposed project, preference for underground power lines, and concerns regarding wildfire are acknowledged. Please see Master Responses 4, CEQA Process and 2, Wildfire.
Yixiong Zhou	I am concerned that the powerline is too close to residences houses. This creates following issues. 1. Interfering with medical devices used by residents. 2. Potential fire hazards. 3. Property value decrease and compensation. 4. Health impacts to certain medical conditions and impacts to health wellfare in general. Cal Fire investigations have concluded that the Camp fire in 2018, the deadliest fire in history, was caused by PG&E's electric power lines[1]. Long before the conclusion was made, PG&E declared bankruptcy protection last year. It is clear now that not only the town is destroyed, but there will have no money to rebuild. The whole community is completely ruined. Before the Camp fire, Cal Fire had concluded that 12 of the Northern California wild fires in 2017 were also caused by PG&E power lines[2]. How many of such tragedies need to happen before people realize that the safest place for power lines is under the ground? One may argue that burying all existing power lines costs too much. However, should we make it a rule that all new power lines should be buried underground? Can we start with the one we are building? In case SDG&E is arguing the alternative remedies, such as power blackout during hot and windy days. Last year, SDG&E blacked out the power two times with each lasting for a day or two. While this may be manageable for once or twice a year, it is clear that such incidents are on the rise. As the progression of global warming, the dry hot winds from the desert is certain to be stronger, last longer, and occur more frequent year after year. Soon we are going to expect week-long blackouts[3]. When will we say enough is enough? Should we act now before it is too late? Let's work to bury the power lines underground now. Regards, Yixiong Zhou & Susan Song Residents of Sagewood, San Elijah Hills Comumunityu	Your preference for underground power lines and concern about proximity of the proposed project to residences, interference with medical devices, wildfire, property value, and human health are acknowledged. Please see Master Responses 5, Non-CEQA Issues; 2, Wildfire; and 3, EMF and Operational Noise. The comment does not provide any evidence for interference of medical devices caused by power lines and does not address the inadequacy of the Draft IS/MND.

TABLE B.1-1
GENERAL RESPONSES TO GENERAL COMMENTS (CONTINUED)

Name	Comment	Response
Yixiong Zhou (cont.)	References: [1] https://www.nytimes.com/2019/05/15/business/pge-fire.html [2] https://sf.curbed.com/2018/6/8/17443508/santa-rose-napa-fire-wildfire-pge-report-findings [3] https://www.bloomberg.com/news/articles/2019-05-12/california-may-go-dark-this-summer-and-most-aren-t-ready	
William Joshua	As a resident impacted by the current power lines and the proposed project, I request an EIR be performed so alternatives such as undergrounding can be considered which would significantly reduce the effects on the environment. It is worth the additional cost to undergorund the current power lines and the proposed additional power lines to not further increase our wildfire risk. Wildfire brings danger and the potential for loss of life of the people and the wildlife living in this area and surrounding areas. Reference the the California "Paradise" fire of 2018 (http://time.com/5589953/pacific-gas-electric-paradise-wildfire-california/). Fire would bring a negative financial impact to residents and businesses in the area certainly result in lawsuits against SDG&E. Undergrounding would allow for preservation of the aesthetics of our beautiful neighborhood and prevent millions of dollars that would be lost in property values. See photo below of the view of the existing power lines from my back yard. Terrible sight.	Your preference for underground power lines and concerns regarding aesthetics, wildfire, and human health are acknowledged. Please see Master Responses 1, Aesthetics; 2, Wildfire; and Master Response 3, EMF and Operational Noise See Appendix B.2 for comment attachments.

Appendix B.2: General Comments Attachments

This appendix is an extension of Appendix B.1 General Responses Table and contains additional General Comment attachments (i.e. jpegs and pdfs) submitted by the following individuals in alphabetical order by last name. For responses to comments submitted as a text attachment seen below, see Table B.1-1 located above.

- Alford, Maritza
- Araneo, Isa
- Beckerman, Marcus
- Block, Jerry
- Bolin, Rachel
- Carosella, Jennifer
- Curry, Jason
- Dela Sierra, Alan
- DiCara, Victor
- Donnelly, Frances
- Ericsson, Kathryn
- Grubb, Katie
- Hadley, Patrick
- Herman, Elliot
- Ingorvate, Henry
- Isbell, Mark
- Joshua, William
- Larochelle, Marc
- Lester, Gary
- Luque, Angela
- Luque, Erick
- Matthews, Stacy
- McDowell, Craig
- Meyer, Michael
- Misra, Mahendra
- Molander, Jen
- Nelson, Charles
- Oblander, Alisa
- Penn, Colleen & Tom
- Salter, Jamie
- Schwend, Kurt
- Sepulveda, Eve
- Simmons, Jason
- Soll, Daniela
- Stewart, Vanessa
- Trotten, Irene
- Vafaei, Shilda
- Wills, Edward
- Wu, Grace

Alford, Maritza

I urge you to make the right choice.

Regards,

Maritza Alford
1721 Tara Way
San Marcos, CA 92078
C: 805-368-4698

Sent from my iPhone

Araneo, Isa

Dear Mayor Jones,

May 14, 2019

We wrote you a letter opposing the placement of (San Diego Gas and Electric) SDG&Es proposed Transmission Lines on May 8, 2019, copy attached, and are grateful for your prompt reply.

We support the proposed action to be taken as Item 14 on the City Council Agenda on May 14, 2019 and support of the City's request that a full Environmental Impact Report (EIR) be completed.

However, we also recommend that the Council consider adding an amendment to the proposed action. In the event that the California Public Utilities Commission (CPUC) doesn't approve the City's request for a full EIR, we recommend that the Council request the City Attorney to prepare and report back on the feasibility and legal authority of challenging a negative CPUC decision by the May 29, 2019 City Council meeting. Often, such preparation and evidence of commitment to follow through by the City goes a long way to encourage the CPUC to do the right thing.

There are a few other points we would like to make regarding the ethical and legal obligations of the City to clearly oppose and take all necessary steps to oppose this project.

While the California Constitution and the California Public Utilities Code, (PUC) grant the CPUC great discretion in many areas of utility control, Cities and Counties retain a similar amount of control using their Constitutionally granted police powers to; "make and enforce within [their] limits all local, police, sanitary, and other ordinances and regulations not in conflict with general laws." (Cal. Const., art. XI, § 7.)

1. The City has authority to challenge decisions of the CPUC if the local government shows that its restrictions on a public utility are for the purpose of protecting health and safety of its residents. See T-Mobile West, LLC v. City and County of San Francisco, opinion of CA Supreme Court issued April 4, 2019, S238001, discussed below.
2. Aesthetic and Community values must be considered by the CPUC when evaluating the terms and conditions of a permit. See Application No. 07-06-131 requiring underground cabling in the Petition of the City of Chino Hills regarding the Tehachapi Transmission Lines.
3. Several provisions of the Public Utilities Code clarify that Cities' retain rights to enforce health and safety matters for their residents.

a) PUC Section 761.3d — Federal, state, or local agencies may adopt deadlines, standards, rules, or regulations for the purposes of protecting public health or the environment, and those standards, rules, or regulations may not be modified, delayed, or abrogated.

b) PUC Section 2901-2906 — Municipal corporations have vested powers of control to supervise and regulate the relationship between public utilities and the general public in matters affecting the health, convenience, and safety of the general public. It doesn't look like the state allows municipal corporations to relinquish those powers of control.

c) PUC Section 761.3d -- Nothing in this section shall result in the modification, delay, or abrogation of any deadline, standard, rule, or regulation adopted by a federal, state, or local agency or the purposes of protecting public health or the environment, including, but not limited to, any requirements imposed by the State Air Resources Board or by an air pollution

control district or an air quality management district pursuant to Division 26 (commencing with Section 39000) of the Health and Safety Code... Local agency includes a City.

d) PUC Section 2906 -- "Powers of control" means all powers of control vested in a municipal corporation to supervise and regulate (a) the relationship between public utilities and their present or prospective customers, consumers, or patrons. The term does not include the powers of control vested in any municipal corporation to supervise and regulate the relationship between such public utilities and the general public in matters affecting the health, convenience, and safety of the general public, including matters such as the use and repair of public streets by any public utility, the location of the poles, wires, mains, or conduits of any public utility, on, under, or above any public streets, and (b) the speed of common carriers operating within the limits of the municipal corporation.

e) PUC Section 1002 – "(a) The commission, as a basis for granting any certificate pursuant to (PUC) Section 1001 shall give consideration to the following factors:

(1) Community values.
(2) Recreational and park areas.
(3) Historical and aesthetic values....

4. On April 4, 2019, the California Supreme Court issued its unanimous opinion in T-Mobile West, LLC v. City and County of San Francisco, S238001, affirming the broad power of municipalities to issue requirements of public utilities seeking to construct improvements to their lines (in this case mobile telephone towers to be placed along City's roads) which would impact the quality of life of their residents. Authority over Communication lines is found in PUC Section 7901 et seq.

   The reasoning in T-Mobile West should apply equally to reasonable protections imposed by a local government in limiting high transmission lines to protect public health and safely. Shareholder owned electric companies are also under the control of the PUC. Section 701 provides that, "The commission may supervise and regulate every public utility in the State and may do all things, whether specifically designated in this part or in addition thereto, which are necessary and convenient in the exercise of such power and jurisdiction."

   The Court ruled that, "The state Constitution vests principal regulatory authority over utilities with the CPUC, but carves out an ongoing area of municipal control. (Cal. Const., art. XII, § 8.) A company seeking to build under section 7901 must approach the CPUC and obtain a certificate of public necessity. (§ 1001; see City of Huntington Beach, supra, 214 Cal.App.4th at p. 585.) The certificate is not alone sufficient; a utility will still be subject to local control in carrying out the construction. Municipalities may surrender to the CPUC regulation of a utility's relations with its customers (§ 2901), but they are forbidden from yielding to the CPUC their police powers to protect the public from the adverse impacts of utilities operations (§ 2902)." See, supra, page 17.

   The court went even further stating that aesthetic considerations may also be used by a local government to regulate placement of lines. Supra at pg. 19.

5. Requesting that a Full EIR be completed prior to any decision on SDG&E's application is the only way to evaluate the safety issues and alternatives available. The California Environmental Quality Act (CEQA) Public Resources Code Sec. 21000 et seq, and the

CPUC's General Order 131-D, "Rules Relating to the Planning and Construction of Electric Generation, Transmission/Power/Distribution Line Facilities and Substations Located in California" would require a Permit from the CPUC for any changes above 50 KV with certain exemptions. However, the exemptions do not cover a situation where the conditions in Rule 131D, Sec. 3B2 are met, as follows:
"The foregoing exemptions shall not apply when any of the conditions specified in CEQA Guidelines 8 15300.2 exist:
a. there is reasonable possibility that the activity may impact on an environmental resource of hazardous or critical concern where designated, precisely mapped and officially adopted pursuant to law by federal, state, or local agencies; or
b. the cumulative impact of successive projects of the same type in the same place, over time, is significant; or
c. there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances"

The fire and other environmental dangers when cited by the City in its comments to the PUC should require the Project to receive a full EIR investigation. Emphasizing the three fires in San Elijo Hills in 1996, 2007 and 2014, requiring evacuations of all San Elijo Hills residents, and the recent Camp fire in Paradise Hills, caused by overhead electric power lines, coupled with the subsequent bankruptcy filing of Pacific Gas and Electric Co are reasons enough for a full EIR.

In conclusion, the City Council's proposed action and draft letter of the City Manager are a substantial step in ensuring that the quality of life of San Marcos residents is retained, despite a need to improve electric services. Nonetheless, the Council should consider preparing for the worst and including in the proposed action that the Council request the City Attorney to prepare and report back on the feasibility and legal authority of challenging a negative PUC decision by the May 28, 2019 City Council meeting.

Thank you for your consideration of these issues.

Very Truly Yours,

Jessica Heinz Jerry Block

Jessica Heinz and Jerry Block (jessifheinz@yahoo.com)

Dear Mayor Jones, May 8, 2019

As residents of San Elijo Hills since 2007 we ask that you request that the PUC deny any permit to build overhead transmission lines in SEH, or at the minimum to require a full Environmental Impact Report before any decision is made. If above power ground lines are placed as proposed by the SDG&E, property values will decrease in San Elijo Hills. No one can deny that the towers and lines are ugly and dangerous. So, what does that mean for the City of San Marcos? A loss of property values in San Elijo Hills (SEH) one of the highest valued areas in the City of San Marcos, means LOWER PROPERTY TAX revenue for City Government.

The City of San Diego has adopted a Utilities Undergrounding Program with target dates for SDG&E to move transmission lines underground. Their official Plan expects to complete the process by 2022. Why then is the City of San Marcos not aggressively opposing SDG&E's new miles of above ground electric transmission lines? Why should new transmission lines ever be permitted to be above ground in populated areas.

The proposed new lines will run through heavy brush and ground cover of nearly 2,000 acres posing a substantial risk of fire to the approximately 10,000 people living in the area. We have lived in SEH since 2007 and have experienced two devastating fire evacuations, in 2007 and 2014. Those fires cost millions of dollars in damage. The Cocos fire evacuation offers a snapshot of the problem since the fires engulfed San Elijo Road to the east meaning that the only escape route was to the west. Even using all the lanes in both directions, it took us over an hour to get to Rancho Santa Fe Road from Double Peak.

The City has done very little to ameliorate this situation. The wildfire risks now are no less than they were in 2007. Cal Fire's Official Wildland Fire Hazard Severity Zone map has not been officially updated since 2007. No update is expected for years. However, the 2007 map shows San Elijo Hills completely surrounded by the Highest Risk fire areas. Buildout of SEH has only added more housing units. (See: http://www.fire.ca.gov/fire_prevention/fhsz_maps/FHSZ/san_diego/San_Marcos.pdf) Couple that with the other developments in the area and you have more people and more cars with no more evacuation routes. Traffic from nearby communities will be using San Elijo Blvd./Twin Oaks Valley Road to escape fires. Consider the limited fire evacuation routes available to developments such as Tesoro, Oak Creek Ranch, Elfin Forest and the Harmony Grove Villages (HGV). For example, The HGV project has led to litigation by Elfin Forest and Harmony Grove residents over the lack of adequate fire escape routes and high density, over 800 housing units. Residents threatened by fire in HGV are likely to use Harmony Grove Rd. which flows into Elfin Forest Road and out to already crowded San Elijo Blvd., packed with SEH residents also trying to evacuate SEH. Driving from SEH to HGV on a normal day takes over 15 minutes, traveling 7.4 miles through dense brush and undergrowth on a winding road in an Extremely High Fire Area.

Most single-family homes in SEH are constructed with 2-3 car garages, so estimating 2 cars per household that's at least 7,000 cars in the community. San Elijo Road with an average daily traffic count of approximately 22,500 cars per day in 2018 and estimated to grow to approximately 32,000 cars per day by 2020 (according to Newmark, Knight, Frank, Developers of SEH Retail Center) demonstrates that this road, the primary evacuation route for SEH is already crowded with commuters, who will likely be using the road during an evacuation as well. When you add this flow to the downstream cars from neighboring communities, any evacuation will be very time consuming and probably lead to panic in the

community. SDG&E estimates that their project will be complete by 2021. If vehicle use of San Elijo Blvd. continues at the current rate of increase the number of cars using the road then will near 41,000.

This is folly and likely to lead to a disaster such as the Paradise fire of 2018, where 85 people died of a population of approximately 26,000, and thousands of homes burned. Their town had two evacuation routes. We also have two routes, San Elijo Blvd./Twin Oaks Valley Rd. and Elfin Forest Rd./Harmony Grove. History tells us that the fires are likely come from either south or east of SEH. In Reality there is Only One Escape Route from SHE; San Elijo Rd. to the West! The total population of persons using that route at buildout of all adjacent communities will be approximately 26,000, about the same as Paradise, CA. At a similar death rate, are we willing to take 85 lives to let SDG&E save a little money?

Ironically, last week the City of San Marcos declared a "Wildfire Preparedness Week" however there appears to be little recognition of the City's obligation to vigorously object to any new above ground transmission lines. At the very minimum the City should demand that a full Environmental Impact Report (EIR) be prepared before the PUC considers approving SDG&E's plan.

The City will have to pay to fight the likely fires, restore habitat, including areas that are home to federally protected species such as the Gnatcatcher, and will have less property tax income to do it, because of the decline of property values. Don't count on SDG&E to help pay for these costs, they will just follow PG&E and declare bankruptcy.

We hope that you and the City Council will seriously consider the impact to the quality of life of your SEH residents and vote to disapprove this project of SDG&E. Tell the PUC that an EIR must be required and considered before any decision is made on the dangerous overhead power lines in SEH.

Very Truly Yours,

Jessica Heinz Jerry Block

Jessica Heinz, and Jerry Block

jessifheinz@yahoo.com

Bolin, Rachel

4/26/19

To Whom It May Concern;
Regarding: San Marcos Project TL 6975, 1674 Sagewood Way, San Marcos CA 92078

We are very concerned with the aesthetics and the property value being affected by this projected project, **TL 6975**. When we originally purchased our home we paid a premium amount that exceeded $50,000 for this lot. Now, with this new purposed project our property value will decrease at least this amount. We are very concerned with the fire potential from winds causing the powerlines to clap against each other or come down. This will also affect our fire insurance costs if we are even able to get coverage.

We are limited to our choices for entering and leaving our neighborhood. In the event of a fire, we are concerned about having access without the need to go near where the fire could be burning. The potential is real and frightening.

We have a swimming pool that is located near the overhead lines that were not there when we originally built the pool. This too, concerns us, due to safety reasons. We host lots of events at our home and notice buzzing now. Once the new poles are installed, we are sure the noise will intensify.

Although little attention is being given to the EMF's that the new transmission lines will bring we are very concerned about our health. We have two very active teens and do not want them exposed to the possibilities of cancer in any form. We realize EMF's are already in the environment but why ad more? Again, we host lots of social events, due to having a pool, and have many families that attend. We are concerned about lawsuits if anything were to happen caused by the new powerlines.

There are multiple poles in our view that are aesthetically displeasing to the eye. The new purposed poles will further destroy any views causing a deterrent to potential buyers to our neighborhood. They have already started disclosing this information to buyers and it is having a very negative effect on the costs of our homes. We are concerned about the biological effects as well as the wildlife. We choose this neighborhood because we could look out at a beautiful landscape unencumbered. With wildlife running free and creating a very peaceful feeling. We didn't want to look out on other homes and power poles with constant buzzing.

We would appreciate the consideration of putting the poles underground. Doing this could eliminate the decrease in property value, noise and hopefully EMF's.

Sincerely,

Jerry & Rachel Bolin
1674 Sagewood Way
San Marcos, CA 92078

Verizon 10:50 PM 66%

nbcsandiego.com

HOME | LATEST NEWS | INVESTIGATIONS | W

LOCAL

Homes Destroyed, 21K Evacuated in San Marcos Fire

By Andie Adams

Update as of Thursday, 7 a.m.:

- Cal Fire top priority today
- Mandatory evacuations for the areas of Questhaven, Harmony Grove and parts of Elfin Forest in San Marcos and neighboring unincorporated areas of the county.
- Evacuation shelter has been set up at Mission Hills High School at 1 Mission Hills Court.
- 0% containment as of 2:40 a.m.
- 700 acres
- 3 homes destroyed, one home damaged
- Next briefing 8:30 a.m.
- Road closures include: South Twin Oaks Valley Road at Hwy 78, Craven Road at Twin Oaks Valley Road, Village Drive at Twin Oaks Valley Road, San Elijo Road at Double Peak Road, Melrose Drive at

Curry, Jason

Dr. Jason and Mrs. Carolyn Curry
2165 Coast Ave.
San Marcos, CA 92078

May 29, 2019

California Public Utilities Commission
Attn: San Marcos-Escondido TL6975
c/o David D. Davis AICP
Environmental Science Associates
1425 N McDowell Blvd, Suite 200
Petaluma, CA 94954

To Whom It May Concern:

We are writing this letter to voice our extreme opposition to Project TL6975.

Our primary residence is 2165 Coast Avenue in San Marcos, California. Presently, the lot directly adjacent to our home has an approximately 100-foot tall steel power line pole that is positioned 120 feet west of our fence line. Project TL6975 will place a 2nd pole 50-feet east of the current pole, essentially splitting the difference between our fence line and the current pole. We have included several pictures below to show the distance between our backyard fence line and the current pole:

We oppose this plan for several reasons.

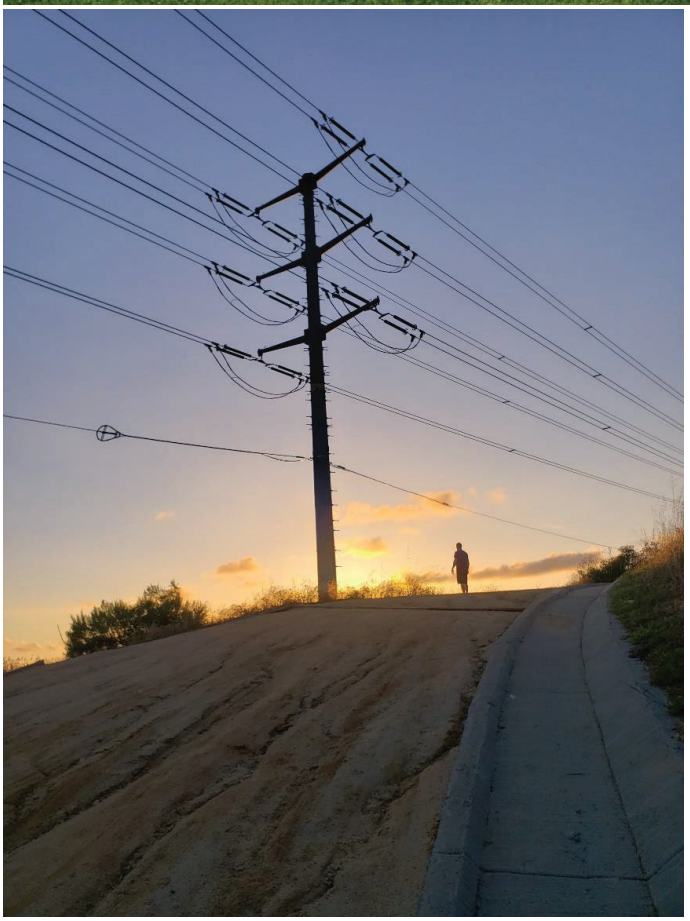
Aesthetically, the poles are an eye-sore. The current poles are horrible enough, but adding additional poles will only further ruin views from our property. Our home has a unique view as it sits atop a hill that has a wonderful canyon and ocean view. Frequently, cars traveling westbound on our residential street stop in front of our house and take pictures of the ocean view and sunsets. The view is partially obstructed by the current electrical poles, and adding more poles and lines will only further diminish both our view and the public's view of the ocean and canyons. Below is another picture taken from our backyard facing the ocean, as well as two pictures showing the view directly in front of our house from our street which is a public road (Coast Ave).

When our neighborhood was first constructed in 2001, there were much smaller wooden poles and electrical lines that subtly passed through the neighborhood. In 2010, the small wooden poles were replaced with gigantic steel poles. Now, Project TL6975 calls for even more large poles and electrical lines through our neighborhood. When compared to the original landscape of 2001, Project TL6975 has a significant cumulative effect on the landscape and makes a significant aesthetic impact. Below are two photographs taken by our neighbor that show the landscape of our home prior to the large steel poles being placed in 2010. The original poles and electrical lines are barely visible.

Furthermore, the projects impacts the view from a beautiful public park, Simmons Family Park, which is located in our neighborhood. The west end of the park overlooks North County San Diego and boasts magnificent ocean views. Given that the park is a public recreation area with an unusual scenic interest, we find it troubling that there are already very large steel poles in place with power lines impeding the public view as this appears to be a violation of CPUC Rule 20. Placing additional steel poles and electrical lines will result in a cumulative effect to obstruct views from the park. Below is a picture taken from the west end of Simmons Family Park.

Curry, Jason (cont.)

Curry, Jason (cont.)



Simmons Family Park is a family-friendly park that has benches, tables, and barbecue pits for outdoor grilling. Parties occur weekly, and Mylar balloons are commonly brought to the park during the celebrations. Recent attention has been made to Mylar balloons being a fire risk as the balloons can cause an explosion when they contact electrical lines. Power outages also frequently occur from Mylar balloons contacting transmission lines. Here is a link to a recent article regarding this issue: https://www.dailynews.com/2019/05/11/you-are-now-entering-mylar-season-if-youre-not-careful-prepare-for-power-outages-fires/amp/

Given that Simmons Family Park is a family recreational area where parties frequently occur with Mylar balloons, we are concerned about Project TL6975 adding more transmission lines over the park.

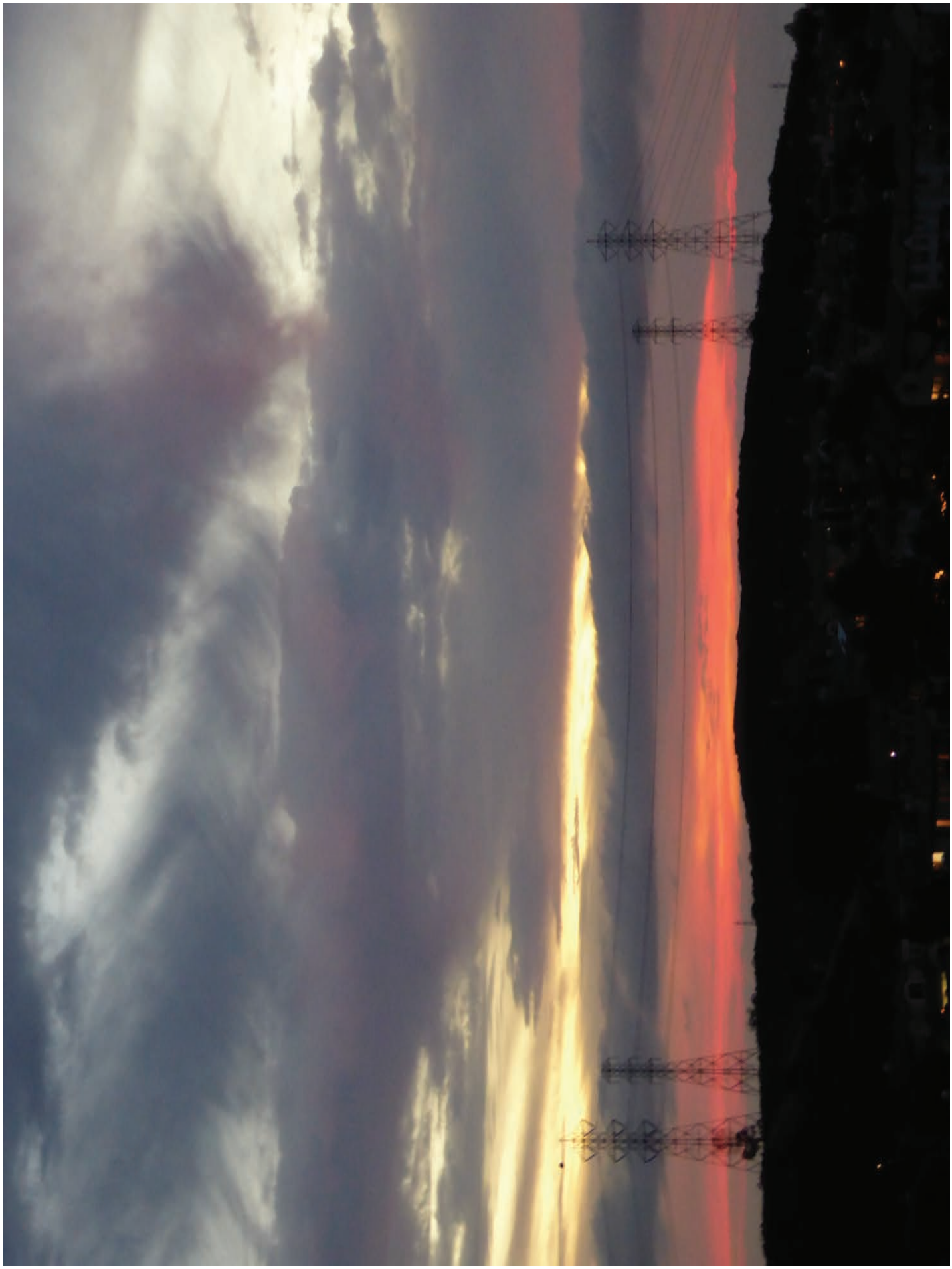
We are also concerned about the negative economic impact from Project TL6975 to both us personally and to the City of San Marcos. Placing large, additional steel poles throughout our neighborhood and throughout the streets of San Marcos will make our area a less desirable place to live. Our home property value will surely be negatively impacted, as well as the other homes with direct views of the new steel poles. This will result in a decrease in property value of homes and businesses. As property value decreases, so will tax revenue which will negatively impact our local government. We are now working with realtors to analyze home sale prices to show the negative impact on homes that occurs when large steel power line poles are placed near homes. Although the data is not yet finalized in time to be included in this letter, from an anecdotal standpoint the impact is clear—the home directly across from us (2166 Coast Ave) went for sale on MLS late last summer and has yet to be sold, all the while other homes further down our street have sold in a matter of weeks.

In closing, we strongly appeal to CPUC to approve an EIR so that other viable alternatives to Project TL6975 can be identified. There are alternative ways to complete the ultimate goal of Project TL6975, and a full review of alternatives cannot be reviewed unless an EIR is completed. In an effort to improve our community, these alternatives should be fully explored and perhaps improvements can be made to the current transmission poles and lines such as removing them and placing them underground.

Sincerely,

Dr. Jason and Mrs. Carolyn Curry

DelaSierra, Alan



DiCara, Victor

DiCara, Victor (cont.)

DiCara, Victor (cont.)

DiCara, Victor (cont.)

Donnelly, Frances

I would like to ask that you insist that an EIR take place on SDG&E's project. I have multiple reasons for this request.

1. Why is the EIR necessary? Primarily for three reasons

    a. We have become aware of facts that were not known in 2017 when the PEA was developed, namely that the risks posed by active power lines during high winds were sufficiently large enough to required shut down of those resources. As evidence please note the Nov. 13 2018 shut down of power that affect communities shown in Exhibit 1. The EIR will help us understand the full range of risks and allow for adequate planning based on the generated data. Environmental risks associated with winds can be particular difficult due to the very erratic nature of the element. Only a full EIR will uncover the anticipated impacts.
    b. There is no content in the submitted documentation that evaluates any range of heightened or reduced risks for fire occurrence based on the increases in target materials that will be dispersed in the new assets relative to what we know is now heightened risks. At the time the PEA was written, 2017, we didn't know how high the current risk was. We found it out by shutting off the power on Nov 13 2018. Therefore any base line assumed at 2017 is irrelevant and should be recalculated. Specifically in Vol II, Chapter 5 SDG&E dismisses undergrounding lines as an option, which may have been adequate thinking based on knowledge at that time. Today we can recognize that only a full EIR can determine if there is justifiably environmental cause for the undergrounding effort.
    c. On Nov 13 the area called downtown San Elijo was severely affected because the traffic lights for the primary flow of traffic through this section were out for many hours. The outage began before school had started and I have in exhibit 2 shown two photographs, one taken looking up the hill towards Schoolhouse way and the other looking in the opposite direction towards Rancho Santa Fe Road. Due

to the early morning power outage occurring before morning commuters had left the development and before school started the traffic on San Elijo Rd was backed up for miles in each direction and there was no means of entry or exist as the medians prevent that. The primary purpose of these pictures is to provide an indication of the risks in this situation. Had emergency equipment been required to access the elfin forest or Quest haven areas or areas in the San Elijo hills community they would have found the streets were all but impassable. There is limited means of turning cars around to exit rather than move forward when there is that much congestion.

By combining multiple activities in a single project SDG&E is attempting to gain approval of their project under the "ratesetting" category which allows them different requirements for approval then if each set of the project were addressed individually. By dismissing in Vol II Chapter 5 the other options they further make a case, based purely on their own logic, that a PEA is sufficient for this project. Only the commission in its role can prevent them taking these shortcut with the safety of the lives and resources in our community. Please require an EIR.

Exhibit 1

Screen shot of SDG&E outages page on web site from video clip in TV archives.

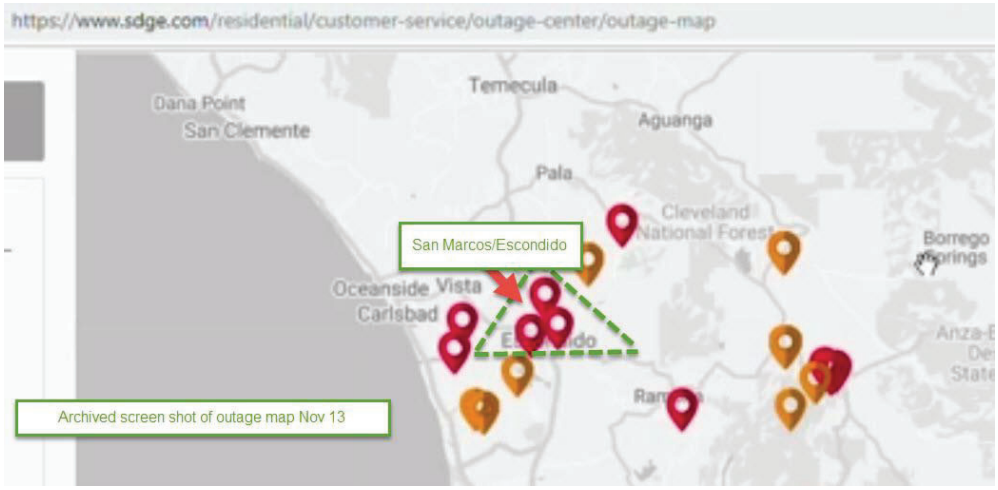
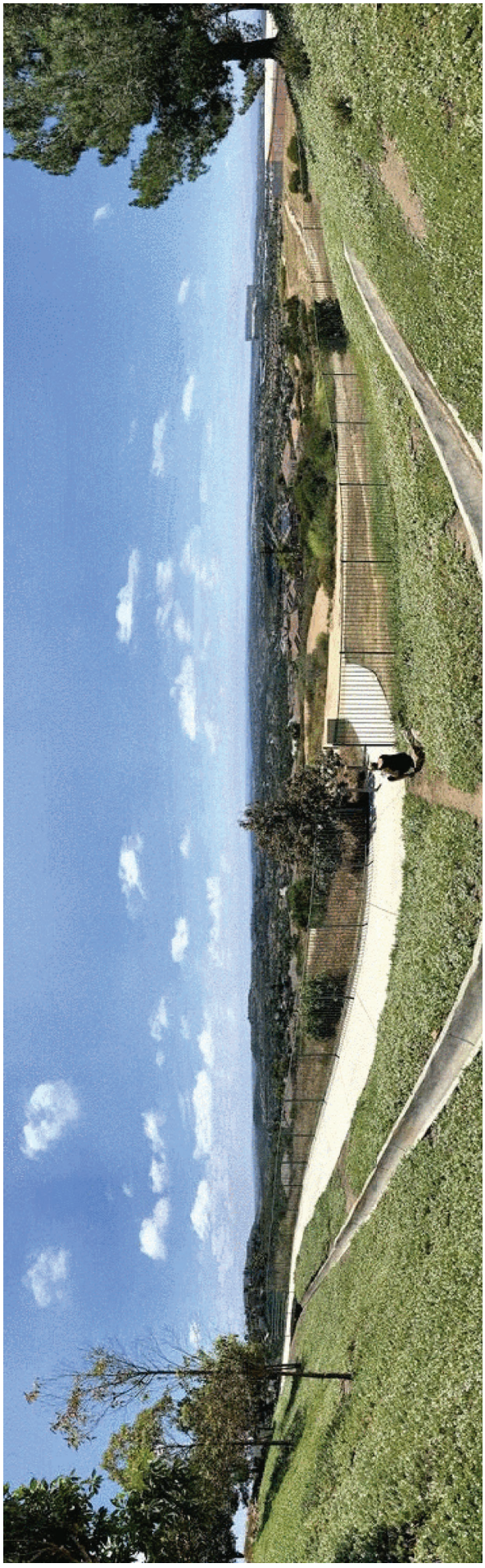
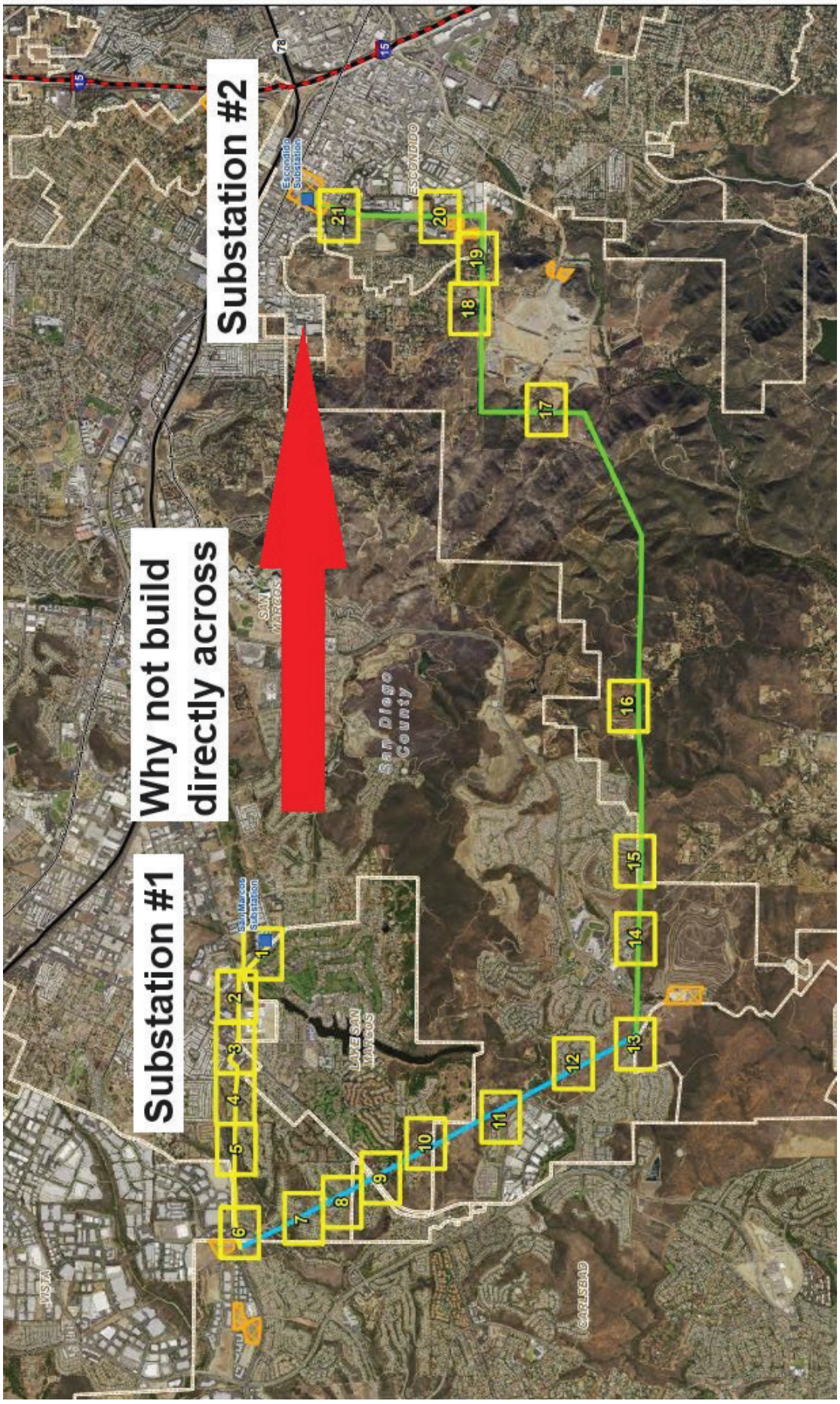


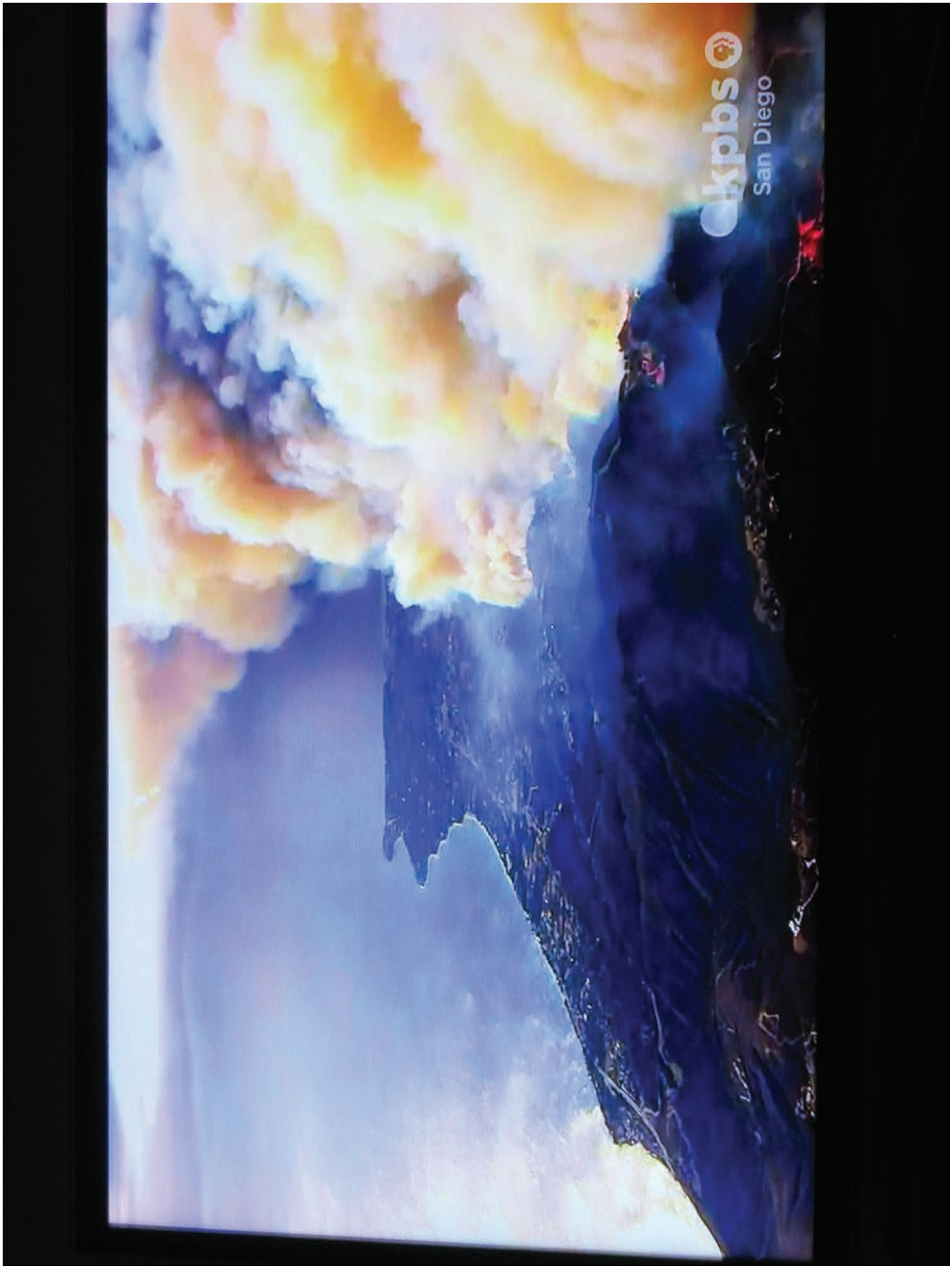
Exhibit 2 Traffic congestion in San Elijo Downtown on Nov 13th. Image a is facing northbound towards Schoolhouse Way. These are not cars at the parking meters.

This is image b and looks westbound to Rancho Santa Fe Road. Zoom the photo ad you will see that the traffic is bumper to bumper.

Ericsson, Kathryn




Substation #2
Why not build directly across
Substation #1
San Marcos Substation
Escondido Substation
San Diego County
LAKE SAN MARCOS
SAN MARCOS
ESCONDIDO
VISTA
CARLSBAD
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21


kpbs
San Diego

PROJECT MAP
N
E
S
W
LEGEND
Substation Sites
Existing Overhead Lines
Proposed Underground Lines
Rancho Bernardo Rd.
Bernardo Substation
W. Bernardo Dr.
Bernardo Center Dr.
Rancho Carmel Substation
Camino del Norte
Camino San Bernardo
15
Valley Center
Escondido
Project Location
Poway
Vista
San Marcos
Encinitas
Oceanside
Carlsbad

NEW AT 6:00
NEIGHBORS FIGHT PLAN TO BUILD MORE POWER LINES
SAN MARCOS
6:04
66°

Power line reconductor project

SDGE
A Sempra Energy utility®

around 45%

That's how much renewable energy customers receive as part of SDG&E's standard power mix.

Our commitment to providing clean, safe and reliable energy means making improvements to our system which includes transmission line replacement activities.

An Advice Letter (a type of notification) was filed with the California Public Utilities Commission (CPUC) for this power line replacement work (TL663 Underground/ Reconductor Project). The enhancement project will increase system capacity and reliability by installing new wires and placing existing overhead transmission lines below ground.

The power line upgrades will help make our system more reliable in the Kearny Mesa area.

Project benefits

- Enhanced safety and reliability of the local transmission electric system.
- Replacement of old electrical equipment.
- Improved system performance during extreme weather conditions.
- Reduced cost and environmental impacts for future maintenance activities.

About the project

Near SDG&E's Kearny Mesa Substation, approximately 3.8 miles of the overhead transmission line will be placed underground along Clairemont Mesa Boulevard and Complex Drive. The new underground line will continue along Murphy Canyon Road at Clairemont Mesa Blvd down to south of Stonecrest Boulevard. Additionally, from Murphy Canyon Road and Stonecrest Boulevard, approximately two miles of overhead transmission line will be replaced with a larger wire so more electricity can flow through.

The project will take approximately 13 months to complete. We'll start with digging a trench and installing conduit and cable. After this work is completed, we'll start on the new foundations and power poles, replace wires and ready transmission poles to receive electricity.

continued on back ▸

Project schedule

Start date – January 2018
End date – December 2018

What to expect

Throughout the project, we'll work as safely and quickly as possible and make every effort to minimize disruptions such as construction traffic, dust and noise along these streets. Although not anticipated, our work may require us to shut off the power for safety purposes. If so, we'll contact you in advance to help make sure you're prepared for a planned outage.

Contact information

For more information, please contact SDG&E's Regional Public Affairs Manager, Dinah Willier at *dwillier@semprautilities.com* or call our Customer Contact Center at **1-800-411-7343**.

P.O. Box 129831 | San Diego, CA 92112-9831 | 1-800-411-7343 | Connect at **sdge.com**

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Transmission Line Project – Bernardo to Rancho Carmel Substations

SDGE
A Sempra Energy utility®

Did you know?

The improvement to this power line between the Bernardo and Rancho Carmel substations will help with "congestion" in the area and improve overall system reliability.

Our commitment to providing safe and reliable energy means making improvements to our system which includes power line replacement activities. This enhancement will help increase system capacity and reliability while also improving safety and aesthetics in surrounding communities.

Overview

This project involves the conversion of an existing 69-kV transmission line from an overhead alignment to an underground alignment between the Bernardo and Rancho Carmel substations. This includes removing approximately three miles of overhead transmission infrastructure and replacing it with an improved underground cable system along roadways within Rancho Bernardo Road, Camino San Bernardo, and Camino Del Norte.

Project benefits

- Increased reliability of the electric system.
- Greater capacity for electricity to flow through our system in the surrounding communities.
- Improved aesthetics in the surrounding areas.
- Minimize environmental impacts and future maintenance.

The proposed transmission line project will help improve service reliability for families in the surrounding communities.

About the project

The project, approved by the California Independent System Operator, is located within various parts of the City and County of San Diego. All upgrades will take place within existing SDG&E® property, SDG&E rights-of-way, or franchise.

What to expect

Throughout the project, we'll work as safely and quickly as possible and make every effort to minimize disruptions such as construction traffic, dust and noise along the affected streets. Although not anticipated, our work may require us to shut off the power for safety purposes. If so, we'll contact you in advance to help make sure you're prepared for a planned outage.

continued on back ▸

Project schedule

California Public Utilities Commission Approval:
December 2017

Construction Activities:
Second Quarter 2018 through First Quarter 2019

Construction Completion:
Second Quarter 2019

Contact information

For more information, please contact:
SDG&E's Regional Public Affairs Manager, Dinah Willier at *DWillier@semprautilities.com*
Project Manager, Vinh Huynh at *VHuynh@semprautilities.com* or call our Customer Contact Center at **1-800-411-7343**.

P.O. Box 129831 | San Diego, CA 92112-9831 | 1-800-411-7343 | Connect at **sdge.com**

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Data Requests, Responses and Attachments

CPUC PEA TL6975 Deficiency Letter 1 (December 15, 2017)

SDG&E Response TL6975 Deficiency Letter (January 12, 2018)
Attachment 1 GIS shapefiles (no link)
Attachment 2A SM Sub Plan Profile

Dave Davis

From: tlyons@semprautilities.com
Sent: Tuesday, May 15, 2018 4:54 PM
To: Dave Davis
Subject: ESA DeliverIt

Attachments 1 & 4 to SDG&E's response to Data Request #1 for the TL 6975 San Marcos to Escondido Project.

tim lyons
ESA | www.esassoc.com

ESA DeliverIt
A file or (files) have been sent to you from **tim lyons** via ESA DeliverIt.

Please click the link(s) below to access those files and save them locally to your computer/server. Hyperlinks are not properly displayed using Entourage for Mac OS. A manual copy and paste of the hyperlink could be required in order to download the file. The link(s) will expire 14 days after the original send date. Be sure to save the files to their appropriate locations and do not work directly on the open files hosted on DeliverIt as the changes will not be saved. If you have any troubles retrieving the files, please let us know.

20180209_TL6975_San_Marcos_to_Escondido_approximate_additional_ROW_required.cpg ,
20180209_TL6975_San_Marcos_to_Escondido_approximate_additional_ROW_required.dbf ,
20180209_TL6975_San_Marcos_to_Escondido_approximate_additional_ROW_required.prj ,
20180209_TL6975_San_Marcos_to_Escondido_approximate_additional_ROW_required.sbn ,
20180209_TL6975_San_Marcos_to_Escondido_approximate_additional_ROW_required.sbx ,
20180209_TL6975_San_Marcos_to_Escondido_approximate_additional_ROW_required.shp

Grubb, Katie

CURRENT POLE
The current pole is already too close to houses

This petition has collected
266 signatures
using the online tools at ipetitions.com

Printed on 2019-04-23

STOP The Power lines

About this petition

We request SDG&E's proposed transmission line project (TL6975) running approximately 12 miles, connecting the San Marcos substation to the Escondido substation not be built by adding additional above ground power line poles.

Instead, we propose the new transmission line be built underground as outlined in SDG&E's proposed alternative route C in SDG&E's "PROPONENT'S ENVIRONMENTAL ASSESSMENT", dated November 15, 2017 or through a combination of alternatives that SDG&E has considered that meet the project objectives.

This petition is being circulated by a volunteer.

Signatures

1. Name: Patrick Hadley on 2018-11-28 21:49:07
Comments:

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2. Name: Katherine Hadley on 2018-11-29 00:57:12
Comments:

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3. Name: Andrea Lukowiak on 2018-11-29 01:26:25
Comments:

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4. Name: Suzanne Beyerlein on 2018-11-29 01:38:52
Comments:

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5. Name: Dave Beyerlein on 2018-11-29 01:39:26
Comments:

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6. Name: Tiffany Lena on 2018-11-29 01:41:46
Comments:

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7. Name: Amy Falco on 2018-11-29 01:43:34
Comments: They are unsightly and a hazard. I live on a street directly affected. Please put them underground.

---

8. Name: Debi Doyle on 2018-11-29 01:45:42
Comments:

---

9. Name: Irene Totten on 2018-11-29 02:02:56
Comments: Above ground power lines make no sense with our current climate changes. They are a fire hazard!

---

10. Name: Heather Wellong on 2018-11-29 02:05:07
Comments: Please look at alternatives- this is right behind our house and we are not comfortable with this current option.

---

11. Name: Greg Wellong on 2018-11-29 02:05:48
Comments:

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12. Name: Elizabeth Wosika on 2018-11-29 02:10:35
Comments:

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13. Name: Amanda Muri on 2018-11-29 02:17:44
Comments:

14. Name: Vanessa Stewart on 2018-11-29 02:21:52
Comments:

15. Name: Trisha Mortier on 2018-11-29 02:25:49
Comments:

16. Name: beverly jacoby on 2018-11-29 02:29:06
Comments:

17. Name: Jolie Fortuna on 2018-11-29 02:41:43
Comments:

18. Name: Jennean Munro on 2018-11-29 02:43:43
Comments:

19. Name: Shannon Barnett on 2018-11-29 02:44:45
Comments:

20. Name: Jennifer Dufek on 2018-11-29 02:47:42
Comments:

21. Name: Jennifer Dieduardo on 2018-11-29 03:00:15
Comments:

22. Name: Marla Trussell on 2018-11-29 03:01:42
Comments:

23. Name: Heather Walker on 2018-11-29 03:05:28
Comments:

24. Name: Erin DeWitt on 2018-11-29 03:13:18
Comments:

25. Name: Paige Marvil on 2018-11-29 03:19:10
Comments:

26. Name: Karen Overton on 2018-11-29 03:21:23
Comments:

27. Name: Kristi Roehm on 2018-11-29 03:23:02
Comments: We live in SEH in San Marcos and are very concerned about the fire hazards

and lack of roads/pathways out of San Elijo Hills while several new housing developments have been added. Why would SDGE intentionally create added risk to our community by adding power lines when we are literally surrounded by an abundance of flammable pine trees??

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28. Name: Chelsea Verhoff on 2018-11-29 03:29:19
Comments:

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29. Name: Andrea Nanigian on 2018-11-29 03:46:19
Comments:

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30. Name: Rosy Weir on 2018-11-29 03:48:14
Comments:

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31. Name: Adriene Leung on 2018-11-29 03:50:25
Comments:

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32. Name: Natalie Fontanetta on 2018-11-29 03:57:16
Comments:

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33. Name: Cheryl Meyer on 2018-11-29 03:58:28
Comments:

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34. Name: April Sparks on 2018-11-29 03:58:40
Comments: We already have power lines directly behind our homes. Adding more 50 feet closer to our homes is not ok. With the fire danger, all power lines near the dry brush should be placed underground. Our power was shut off during the last Santa Ana winds due to the power lines behind our homes. The cost of putting them underground is nothing compared to the cost of San Elijo going up in flames.

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35. Name: Luis Leung on 2018-11-29 04:00:46
Comments:

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36. Name: Joan Miguel on 2018-11-29 04:10:10
Comments:

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37. Name: Julie Hainsworth-Wynia on 2018-11-29 04:11:50
Comments:

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38. Name: Roger Clark on 2018-11-29 04:12:30
Comments:

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39. Name: Art Miguel on 2018-11-29 04:13:05

Comments:

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40. Name: Tiffany Allen on 2018-11-29 04:19:23
Comments:

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41. Name: Laura Rilling on 2018-11-29 04:37:10
Comments:

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42. Name: Lindsay Reese on 2018-11-29 04:42:17
Comments:

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43. Name: Danielle DiNorscia on 2018-11-29 04:43:33
Comments:

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44. Name: Jamie Christman on 2018-11-29 04:43:33
Comments:

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45. Name: Elizabeth Coll on 2018-11-29 04:54:29
Comments:

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46. Name: Bradley Vilen on 2018-11-29 05:02:28
Comments:

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47. Name: Susan Watanabe on 2018-11-29 05:12:44
Comments:

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48. Name: Keith Watanabe on 2018-11-29 05:13:44
Comments:

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49. Name: Shawndy Elam on 2018-11-29 05:13:58
Comments:

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50. Name: Susan Pack on 2018-11-29 05:16:01
Comments:

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51. Name: Stephanie moore on 2018-11-29 05:19:53
Comments:

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52. Name: Katharyn Canfield on 2018-11-29 05:20:04
Comments:

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53. Name: Kristin salazar on 2018-11-29 05:31:18

Comments:

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54. Name: Jill Wells on 2018-11-29 05:34:57
Comments:

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55. Name: Shawn Roybal on 2018-11-29 05:37:23
Comments: No more power lines!!!

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56. Name: Ladonne Joseph on 2018-11-29 05:42:46
Comments:

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57. Name: Barbara Harlow on 2018-11-29 05:45:44
Comments:

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58. Name: Andrea Patressi Rebis on 2018-11-29 05:45:48
Comments:

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59. Name: Mike dinorscia on 2018-11-29 05:59:35
Comments:

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60. Name: Nicolas D Jonville on 2018-11-29 06:04:58
Comments: We need these power lines underground for general safety... many wild fires in the recent past appear to be the result of powerline/generator issues, and they can affect property values. Any new power lines should be underground in my opinion, particularly in residential and brush areas.

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61. Name: Ilana Huff on 2018-11-29 06:20:43
Comments: All of us residents need to get together and stop this. These power lines will also affect property values. SDG&E needs to put these underground. We need our voices heard!

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62. Name: Kham Srilasak on 2018-11-29 06:23:32
Comments:

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63. Name: Yukako Mese on 2018-11-29 06:24:02
Comments:

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64. Name: Craig Gilbert on 2018-11-29 06:24:36
Comments:

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65. Name: Emily Wilhelms on 2018-11-29 06:42:29
Comments:

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66. Name: Daniela soll on 2018-11-29 06:43:35
Comments:

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67. Name: Heather Whelan on 2018-11-29 06:48:57
Comments:

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68. Name: Dana Paris on 2018-11-29 09:39:19
Comments: Put power lines underground

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69. Name: Elsie Wilburn on 2018-11-29 11:22:25
Comments:

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70. Name: Lisa Kaltenbach on 2018-11-29 11:51:11
Comments:

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71. Name: Dana Pustinger on 2018-11-29 13:01:18
Comments:

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72. Name: Ali Barbee on 2018-11-29 13:49:36
Comments:

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73. Name: Natalie Morris on 2018-11-29 13:55:06
Comments:

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74. Name: Mary Handy on 2018-11-29 13:59:48
Comments:

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75. Name: Michelle Vetlesen on 2018-11-29 14:15:01
Comments:

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76. Name: Alison Milhous on 2018-11-29 14:18:49
Comments:

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77. Name: Guy Walker on 2018-11-29 14:22:08
Comments: Please, no more above power lines in our community.....only below ground!

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78. Name: Lisa Druxman on 2018-11-29 14:35:10
Comments:

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79. Name: Jason Druxman on 2018-11-29 14:42:36
Comments:

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80. Name: Janet Martis on 2018-11-29 14:49:35
Comments: No power lines!

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81. Name: Sarah thor on 2018-11-29 14:53:35
Comments:

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82. Name: Melissa Nicolas on 2018-11-29 15:01:58
Comments:

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83. Name: Elaine Kelly on 2018-11-29 15:06:17
Comments:

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84. Name: Gwen Schvimmer on 2018-11-29 15:35:40
Comments:

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85. Name: Erika Walker on 2018-11-29 15:40:56
Comments: we do not want power lines behind our Sagewood community in San Elijo Hills! It will kill values between 50 to $75,000! I am a real estate broker and I sell over here and I see it all the time plus the buzzing sound is not healthy for the kids or families! Put it on the ground or move it somewhere else

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86. Name: Cynthia Nosewicz on 2018-11-29 15:47:48
Comments: Absolutely not!

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87. Name: Jessica Heinz on 2018-11-29 15:52:11
Comments: SDGE should not be allowed to construct an above ground power line here. The proposed path has lots of vegetation. SEH already has substantial fire risks. Don’t add to the problem.

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88. Name: Keely Burns on 2018-11-29 15:57:44
Comments:

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89. Name: Deborah Finney on 2018-11-29 17:12:50
Comments: Stop putting lives at risk.

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90. Name: Beth Houser on 2018-11-29 17:49:07
Comments:

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91. Name: Kari Preston on 2018-11-29 18:01:42
Comments:

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92. Name: Cory Nelkin on 2018-11-29 18:43:12
Comments:

93.	Name: Gabrielle Sullivan on 2018-11-29 18:53:47 Comments:
94.	Name: Camille Parsons on 2018-11-29 19:19:40 Comments: This can potentially become another Campfire for San Elijo Hills!
95.	Name: Katie Sheriff on 2018-11-29 19:44:12 Comments:
96.	Name: Mary Maloney on 2018-11-29 19:46:05 Comments: No more power lines in San Elijo Hills. These are not only a fire & health hazard, but can significantly impact home values. The alternative plan is a much more prudent option for everyone.
97.	Name: Lorena Weaver on 2018-11-29 20:00:00 Comments:
98.	Name: Cindy Brand ff on 2018-11-29 20:14:12 Comments:
99.	Name: Morgan manning on 2018-11-29 20:16:07 Comments:
100.	Name: Danielle Harway on 2018-11-29 20:37:13 Comments: The building that is putting lives at risk has to stop. Period. Power lines included.
101.	Name: Katie Grubb on 2018-11-29 20:42:59 Comments:
102.	Name: Andrew W Hadley on 2018-11-29 20:54:41 Comments:
103.	Name: Jamie Lang on 2018-11-29 21:21:50 Comments:
104.	Name: Kevin Lang on 2018-11-29 21:27:09 Comments:
105.	Name: Danielle Allison on 2018-11-29 21:49:56 Comments: We are in a highly susceptible area to wildfires. There needs to be caution

and exploration of impact before throwing up more development

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106. Name: Kristina Spaete on 2018-11-29 21:56:03
Comments:

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107. Name: Carl Spaete on 2018-11-29 21:56:50
Comments:

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108. Name: brandi hessick on 2018-11-29 22:46:54
Comments:

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109. Name: Danielle Jackola on 2018-11-29 22:49:32
Comments:

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110. Name: Jackie Williams on 2018-11-29 22:56:32
Comments:

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111. Name: Amy Schlegel on 2018-11-29 22:57:39
Comments:

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112. Name: Ashley on 2018-11-29 22:57:43
Comments:

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113. Name: Sandra Hermanson on 2018-11-29 23:03:01
Comments:

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114. Name: Christopher govers on 2018-11-29 23:16:23
Comments:

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115. Name: Melissa Ohara on 2018-11-29 23:17:12
Comments:

---

116. Name: Jennifer duke on 2018-11-29 23:42:29
Comments:

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117. Name: Cari Shaffer on 2018-11-29 23:57:55
Comments: We definitely do not want more power above ground power lines running through San Elijo Hills or anywhere in San Marcos! The below ground option must be explored.

---

118. Name: Stephanie Cowan on 2018-11-30 01:01:11
Comments:

119.	Name: Aaron Gaines on 2018-11-30 01:34:07 Comments:
120.	Name: Paul Quinn on 2018-11-30 02:18:37 Comments:
121.	Name: Jennifer Bartholomew on 2018-11-30 03:08:16 Comments:
122.	Name: Michaelann Carroll on 2018-11-30 03:09:29 Comments:
123.	Name: Blair on 2018-11-30 03:33:17 Comments:
124.	Name: Mary Hauri on 2018-11-30 04:24:05 Comments:
125.	Name: Sandhya Tippur on 2018-11-30 05:16:07 Comments:
126.	Name: Lauren Washburn on 2018-11-30 06:50:02 Comments:
127.	Name: Cindy Knowles on 2018-11-30 15:42:31 Comments:
128.	Name: Curt Knowles on 2018-11-30 15:43:20 Comments:
129.	Name: Tami stipcich on 2018-11-30 17:29:48 Comments:
130.	Name: Joshua Stipcich on 2018-11-30 17:31:11 Comments:
131.	Name: Paul Sangster on 2018-11-30 20:54:47 Comments:
132.	Name: Courtney Gerk on 2018-11-30 23:05:48 Comments:

133. Name: Jerry Bolin on 2018-12-01 01:17:01
Comments: These lines would lower our property values significantly

134. Name: Lance Jackola on 2018-12-01 05:24:39
Comments:

135. Name: Craig pobst on 2018-12-01 05:26:15
Comments:

136. Name: Eric on 2018-12-01 14:41:16
Comments:

137. Name: Elaine Kelly on 2018-12-01 15:05:45
Comments:

138. Name: Melissa Wallace on 2018-12-01 15:12:45
Comments:

139. Name: Tina van Hamersveld on 2018-12-02 00:30:07
Comments:

140. Name: Chris van Hamersveld on 2018-12-02 02:24:09
Comments:

141. Name: Julie Gonick on 2018-12-02 14:27:32
Comments:

142. Name: Katie Jo Keeling on 2018-12-02 15:13:53
Comments:

143. Name: Katie Gaines on 2018-12-03 17:12:48
Comments:

144. Name: Amber Narsncich on 2018-12-03 19:22:56
Comments:

145. Name: Emily Milla on 2018-12-03 19:42:01
Comments:

146. Name: Alice Rowe on 2018-12-03 19:54:20
Comments:

147. Name: Angie Triana on 2018-12-03 20:09:10
Comments:

148. Name: brent kelly on 2018-12-03 22:24:09
Comments:

149. Name: Susanna Pagan on 2018-12-03 23:20:08
Comments:

150. Name: Kristal Jabara on 2018-12-04 01:52:36
Comments:

151. Name: Brandi Atteberry on 2018-12-04 02:41:00
Comments:

152. Name: Melisa Korry on 2018-12-04 03:03:19
Comments:

153. Name: Lisa Filippone on 2018-12-04 03:19:55
Comments: It is already difficult to get home owners insurance due to fire risk. Adding more above ground power lines is dangerous and irresponsible.

154. Name: Carol Clause on 2018-12-04 03:21:02
Comments:

155. Name: Alicia Reynolds on 2018-12-04 04:29:40
Comments:

156. Name: Kamara Chergosky on 2018-12-04 07:14:38
Comments:

157. Name: Rick Imber on 2018-12-04 13:10:09
Comments: I have been to public information meetings from SDGE on this new power line. I am informed on why/where/how and reject this new power line! Inpropose they put it under ground

158. Name: Wendy Fisher on 2018-12-04 13:28:33
Comments:

159. Name: Kelly Willis on 2018-12-04 14:17:46
Comments:

160. Name: Jeannine Melville on 2018-12-04 19:32:02
Comments:

161. Name: Do Laraway on 2018-12-05 05:04:37
Comments: Absolutely agree with the request. We definitely don't want more above ground power lines.

162. Name: Jodi Parkey on 2018-12-05 05:36:56
Comments:

163. Name: Whitney Fields on 2018-12-05 13:49:09
Comments: Thank you for ciruclating this petition! NO MORE POWER LINES IN RANCHO DORADO!!! We already have them running through the center of our beautiful neighborhood. When these were installed several years ago, we were told that they were leaving room to add more lines if necessary but now they want to put in more towers! This is unacceptable and greatly impacts the value of our homes, not to mention the increased risk for fire!

164. Name: Salina Polentz on 2018-12-05 18:18:29
Comments:

165. Name: Derek Adams on 2018-12-05 20:06:53
Comments:

166. Name: Vonnie Gross on 2018-12-06 04:09:06
Comments: I agree they are really an eyesore and take from the beauty of the lovely hill's and natural landscape.How safe are they?

167. Name: Kelley Berman on 2018-12-06 04:21:34
Comments: In this day-and-age powerlines should be safely buried underground.

168. Name: Paul Cloutier on 2018-12-06 05:39:28
Comments:

169. Name: Ed Philbrick on 2018-12-06 17:27:42
Comments: The impact to home values, views and fire safety are a concern.

170. Name: Tina Dickson on 2018-12-06 17:28:48
Comments:

171. Name: Ann Arriagada on 2018-12-06 17:29:51
Comments:

172. Name: Mary on 2018-12-06 17:31:16
Comments:

173. Name: J Yambao on 2018-12-06 17:34:06
Comments:

174. Name: Lisa Serhan on 2018-12-06 17:34:59
Comments:

175. Name: Andrea Kriegler on 2018-12-06 17:35:35
Comments:

176. Name: Ginni sobti on 2018-12-06 17:38:13
Comments:

177. Name: Sandra Herman on 2018-12-06 17:38:52
Comments:

178. Name: Larry Witt on 2018-12-06 17:47:07
Comments:

179. Name: Michelle Wilson on 2018-12-06 17:49:27
Comments:

180. Name: Mike Lena on 2018-12-06 17:51:44
Comments:

181. Name: Christy Ortiz on 2018-12-06 17:54:59
Comments:

182. Name: Ben Jaccarino on 2018-12-06 17:57:58
Comments:

183. Name: Heidi Johnson on 2018-12-06 18:05:19
Comments:

184. Name: Kimberly Herrmann on 2018-12-06 18:05:51
Comments:

185. Name: John Blake-haskins on 2018-12-06 18:06:26
Comments:

186. Name: Michell Thitathan on 2018-12-06 18:08:45
Comments: Pay a bit more now to do it properly so you/we don't have to pay much higher to fix it (and the damage fires from it may cause) down the road. Play the long game!

187. Name: Natasha Thayer on 2018-12-06 18:20:42
Comments:

188. Name: Carolann lucian on 2018-12-06 18:22:58
Comments:

189. Name: Responsible Cell on 2018-12-06 18:25:55
Comments: Responsible Cell has worked with San Elijo Hill residents for the betterment and safety of our community. We opposed the San Elijo Cell Tower Complex that the San Marcos City Council approved in the middle of our community. We also oppose the SDG&E proposed transmission line project. Please let us know how we can help get SDG&E to put these lines underground.

190. Name: Jeff raunig on 2018-12-06 18:40:38
Comments:

191. Name: Domenica Pearl on 2018-12-06 18:56:52
Comments:

192. Name: Stephanie Buser on 2018-12-06 19:28:28
Comments:

193. Name: Nona Rangel on 2018-12-06 19:34:18
Comments:

194. Name: Angie Mosteller on 2018-12-06 19:43:04
Comments:

195. Name: Charity Abelardo on 2018-12-06 20:15:58
Comments:

196. Name: Doral Fredericks on 2018-12-06 20:40:38
Comments:

197. Name: Darcy Jensen-Heller on 2018-12-06 21:05:15
Comments:

198. Name: Nicole Apostolakos on 2018-12-06 22:53:33
Comments:

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199. Name: Chuck Deerinck on 2018-12-06 23:13:00
Comments:

---

200. Name: Kevin Mecum on 2018-12-06 23:49:23
Comments:

---

201. Name: Jodie shazer on 2018-12-07 00:32:49
Comments:

---

202. Name: Christine Sanchez on 2018-12-07 03:00:36
Comments: Enough is enough! Please

---

203. Name: Steven Harvey on 2018-12-07 03:18:38
Comments: Protect our homes, bury these lines.

---

204. Name: Tracey Foster on 2018-12-07 03:45:55
Comments:

---

205. Name: David Soule on 2018-12-07 05:04:53
Comments: No poles

---

206. Name: Aimee Cameron on 2018-12-07 05:15:16
Comments:

---

207. Name: Rita zapko on 2018-12-07 06:11:18
Comments: Please explore underground options. Cocos fire evacuation was terrible, and we have more cars, houses, and people now.

---

208. Name: Santiago Chuck on 2018-12-07 13:22:37
Comments:

---

209. Name: Patricia Blackburn-Benavente on 2018-12-07 13:43:05
Comments:

---

210. Name: Kim Horanyi on 2018-12-07 14:21:23
Comments:

---

211. Name: Nicole Boros on 2018-12-07 14:39:02
Comments:

212. Name: Debra Cuccia on 2018-12-07 16:30:48
Comments:

213. Name: Christine herr on 2018-12-07 18:54:53
Comments:

214. Name: Matt Elson on 2018-12-07 19:50:04
Comments: We already have lines and the addition will drastically hinder housing costs, increase fire probability, and destroy the views we paid for. Underground needs to be the only way this happens.

215. Name: Laura Kay Meyer on 2018-12-07 19:53:37
Comments:

216. Name: Elliot Herman on 2018-12-07 21:00:03
Comments: The better route is underground which would be more reliable in the first place.

217. Name: Debbie Edwards on 2018-12-07 21:58:20
Comments:

218. Name: Rachel Cuevas on 2018-12-07 22:45:31
Comments:

219. Name: Brad Soll on 2018-12-08 04:03:49
Comments:

220. Name: Eleanor Stewart-Garbrecht on 2018-12-08 04:34:32
Comments:

221. Name: Irma Galvan on 2018-12-08 06:36:50
Comments:

222. Name: Travis Fisher on 2018-12-08 12:47:11
Comments: No above ground ugly and dangerous

223. Name: Libbi on 2018-12-08 21:00:36
Comments:

224. Name: David Exner on 2018-12-08 23:37:24
Comments:

225. Name: Doug Haroldson on 2018-12-08 23:44:06
Comments: Please put this underground or find other alternatives SDG&E! You have not shown a true justification for this line...

226. Name: Todd Sheive on 2018-12-09 01:06:35
Comments: Fire danger and negative effect on home values are reason enough to force these underground.

227. Name: Jean Young on 2018-12-09 01:11:08
Comments: Please put the lines underground for safety and appearance.

228. Name: Susana Castillo on 2018-12-09 03:24:47
Comments: We are completely against of any structure that put our families at risks, fires, health related issues, etc and also deteriorating our beautiful Rancho Dorado neighborhood views.

229. Name: Gregory D Phillips on 2018-12-09 03:26:31
Comments: As a homeowner whose property is adjacent to the proposed new lines, I am concerned about fire risk and property values. Better alternatives exist and should be pursued.

230. Name: Keyvan Malekshamran on 2018-12-09 03:30:59
Comments: We are completely against of any structure that put our families at risks, fires, health related issues, etc and also deteriorating our beautiful Rancho Dorado neighborhood views.

231. Name: Jason Curry on 2018-12-09 05:39:58
Comments:

232. Name: Carolyn Curry on 2018-12-09 05:40:36
Comments:

233. Name: ya on 2018-12-09 06:23:52
Comments: Underground lines make better long term sense. Please revisit this option.

234. Name: Elliot Baum on 2018-12-09 14:31:28
Comments: I live in San Marcos and want to have as many power lines put underground for the safety of our community.

235. Name: Shannon Baum on 2018-12-09 14:32:16
Comments: I live in San Marcos and want to have as many power lines put underground for the safety of our community.

236. Name: Kurt Schwend on 2018-12-09 15:29:33
Comments: As a homeowner directly on the current proposed route, this would have a significant negative impact on my home's value, and my ability to sell in the future. It will create an eyesore in the community. It is ridiculous that this would be considered when a reasonable alternative exists that would protect all parties, accomplish the goal, and improve the neighborhoods impacted.

237. Name: Catherine Leach-Phillips on 2018-12-09 21:27:25
Comments: These power lines should be put underground. Above ground, they are a fire hazzard. My backyard faces the canyon where these new poles will go.

238. Name: Jay on 2018-12-10 06:17:15
Comments:

239. Name: Kelley Carlstrom on 2018-12-10 07:10:50
Comments:

240. Name: Andrew Carlstrom on 2018-12-10 07:11:39
Comments:

241. Name: John Garbrecht on 2018-12-10 12:45:10
Comments:

242. Name: Shawn Peddycord on 2018-12-10 17:04:37
Comments:

243. Name: Jon Lycett on 2018-12-11 02:57:32
Comments: Undergrounding these lines eliminates all permanent impacts, leaving only the temporary impacts associated with construction. As proposed, the lines create a substantial impact on the environment, which SDG&E does not adequately identify or analyze in its PEA.

244. Name: Craig McDowell on 2018-12-12 01:22:06
Comments:

245. Name: Sirlei on 2018-12-13 00:32:29
Comments:

246. Name: JJ Springer on 2018-12-13 20:41:23
Comments:

247. Name: Sharon Floyd on 2018-12-14 04:36:04

Comments:

---

248. Name: Scott Weiner on 2018-12-15 01:15:44
Comments: Underground option sounds like the best way to go.

---

249. Name: Joseph P Graf on 2018-12-21 18:47:11
Comments:

---

250. Name: Cheryl Moulton on 2018-12-27 08:24:43
Comments: No more above ground power lines! They are unsightly and dangerous. The underground option should be pursued.

---

251. Name: Frances Donnelly on 2018-12-28 18:04:11
Comments:

---

252. Name: Donna Barton on 2019-01-11 19:27:09
Comments:

---

253. Name: Kimberly Dailey on 2019-01-22 14:02:49
Comments:

---

254. Name: Sean Hermanson on 2019-04-02 21:54:31
Comments: Above ground power lines are detrimental to the communities around them.

---

255. Name: Joseph Rebis on 2019-04-06 23:27:00
Comments:

---

256. Name: Amy Riviere on 2019-04-10 16:52:58
Comments:

---

257. Name: Greg on 2019-04-14 19:55:59
Comments: Go underground and also bury the existing cables!

---

258. Name: Nancy Forcier on 2019-04-16 05:16:46
Comments: Stop the above ground power lines!

---

259. Name: John W Conforti on 2019-04-16 16:16:47
Comments:

---

260. Name: Bruce Schryver on 2019-04-16 20:54:57
Comments: SDG&E has no regard for residents nor the environment. Look at the promises over the Sunrise Powerlink...we would have plenty of energy for the future,

even without San Onofre. Then it's back to the same old story, we need more and more. How many lies does it take to convince residents SDG&E never tells the truth!

---

261. Name: Elizabeth Siqueira on 2019-04-16 20:59:23
Comments:

---

262. Name: Isa Araneo on 2019-04-17 04:17:45
Comments:

---

263. Name: Ricardo Siqueira on 2019-04-17 06:54:00
Comments: No new power lines above ground in our community. Fire hazard, environmental damage, emf/health issues and property value negative impacting.

---

264. Name: Deborah Maddox Rees on 2019-04-17 13:32:24
Comments: This is too close to my house/our community, and Too Dangerous. Explore underground options further!!!!!

---

265. Name: Timothy Salazar on 2019-04-17 14:55:37
Comments:

---

266. Name: Kent Carruthers on 2019-04-19 04:43:10
Comments:

Herman, Elliot

Herman, Elliot (cont.)

Herman, Elliot (cont.)

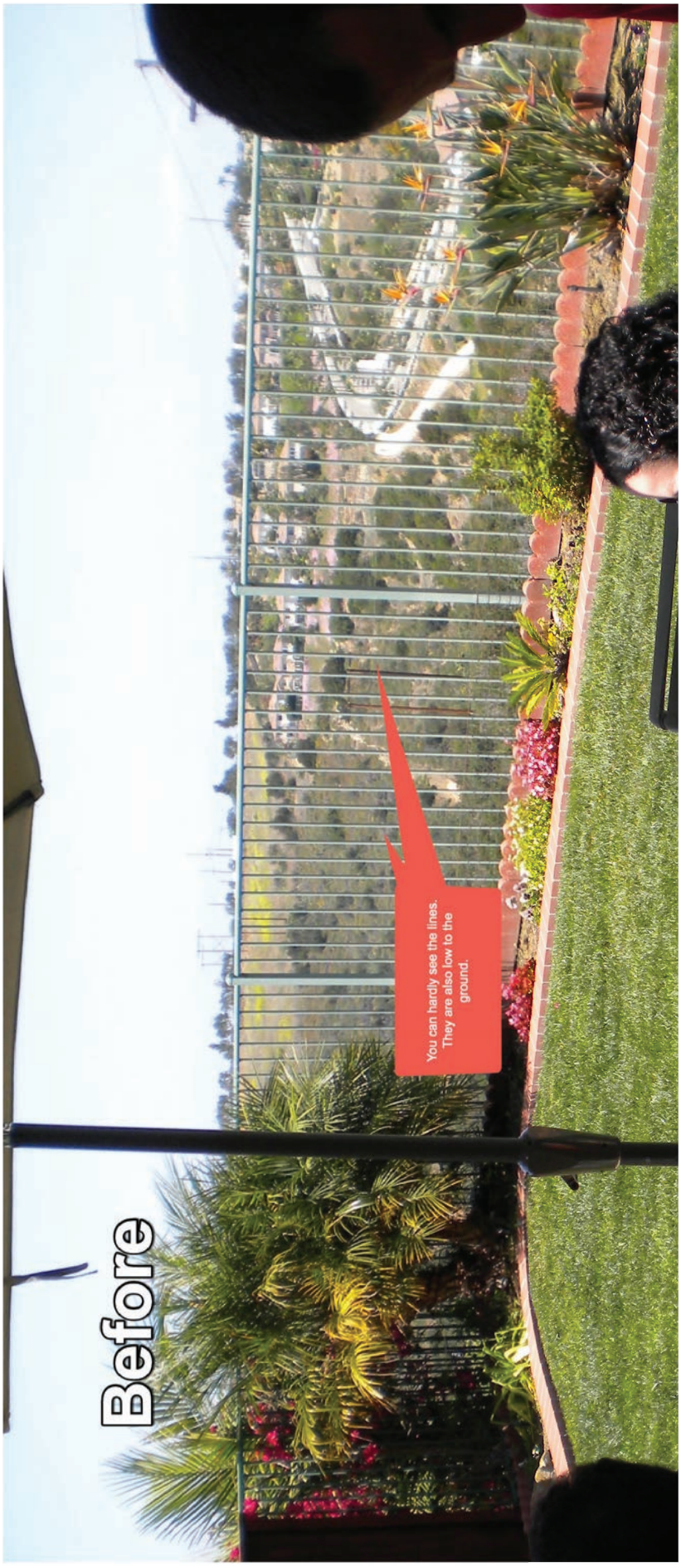
Ingorvate, Henry

Ingorvate, Henry (cont.)

Isbell, Mark

Joshua, William

Larochelle, Marc



After
Thick and high power lines kill the view.
Giant Poles

Lester, Gary

Lindsay Management Services
A Division of Corporate Management Consultants, Inc.

May 28, 2019

California Public Utilities Commission
ATTN: San Marcos-Escondido TL6975
c/o David D. Davis, AICP
Environmental Science Associates
1425 N. McDowell Blvd., Suite 200
Petaluma, CA 94954

Dear Commissioners,

On behalf of the board of directors of the Brighton Ridge Homeowners' Association (HOA) and the residents of Brighton Ridge, I hereby request that you **require San Diego Gas & Electric to conduct a comprehensive Environmental Impact Report** on the proposed *San Marcos to Escondido Tie Line 6975 69kV Project*.

Brighton Ridge is a neighborhood of 22 homes located in the city of San Marcos. Our community is immediately adjacent to the proposed Segment 2-New Build. This part of the project will double the number of steel transmission poles and overhead power lines. This will significantly and negatively impact the aesthetics and views from our homes and from nearby city-owned Simmons Family Park and hiking trails. Equally impacted, significantly and negatively, will be our health, safety, insurance rates, and property values due to the heightened fire risk from having more high-voltage power lines running through our canyons and open spaces.

A full, comprehensive Environmental Impact Report that objectively assesses *all* options and alternatives is essential to protecting the rights and interests of Brighton Ridge's homeowners.

Please do the right thing and require SDG&E to conduct an Environmental Impact Report for this project.

Sincerely,

Gary Lester
President, Brighton Ridge Homeowners' Association

cc: Ms. Rebecca Jones
Mayor, City of San Marcos

Mr. Randy Walton
City Council Member, District 2, City of San Marcos

Mr. Jack Griffin
City Manager, City of San Marcos

Member of CAC M
North County: (760) 436-1144 • San Diego: (800) 479-4849 • FAX (760) 436-2566
6126 Innovation Way • Carlsbad, CA 92009 • admin@lindsaymgt.com
member COMMUNITY ASSOCIATIONS INSTITUTE

Luque, Angela

McDowell, Craig

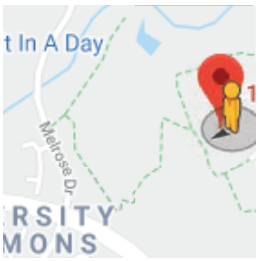
Google Maps 1690 Sagewood Way

Image capture: Dec 2011 © 2019 Google

San Marcos, California

Google

Street View - Dec 2011



Meyer, Michael

My name is Michael Meyer and my residence is located approximately 70 feet from pole 67 in segment 2 of the proposed project.

I have several concerns about the addition of another transmission line in this area when there appear to be viable alternatives that will only be seriously considered unless an EIR is prepared.

The addition of this transmission line does increase fire risk due to it being a smaller transmission line with conductors closer to the ground than the existing transmission line. How does the potential property damage that could result from such a fire compare to the cost of unexplored alternatives that do not have this increased risk? Please prepare an EIR.

The addition of this transmission line is to be sited in an area where many small children reside including my own children ages 2 and 7. The department of education would not allow a new school to be located where my residence is sited due to the proximity of the proposed transmission line. Is the safety of my children of less importance at their place of residence than where they are educated? If there are alternatives that exist without this issue why are they not being explored? Please prepare an EIR.

The addition of this transmission line will also have short and long-term effects as it relates to the construction in the area directly behind my residence. In Figure 1 below, the pins labeled "permanent disruption 3" and "permanent disruption 4" and the two unlabeled pins identify the proposed area of construction. This is only 60 to 70 feet from the residence so it is clear there will be substantial noise generated at the residence during construction. While I do see mitigation measures identified to partially address this such as "relocation", how does this compare to the unexplored alternatives which might not affect any individuals to such an extent? Please prepare an EIR.

We also have a koi pond located at the pin labeled "pole 67 view 1" in Figure 1. What mitigation measures are going to be in place to make sure the herbicides used to denude the construction area do not harm our fish which are sensitive to the herbicides identified? The prevailing winds typically are from the direction of the construction site to our residence.

The long-term effects to the areas where construction will occur have not been specifically identified. It is unclear as to what other issues we many being dealing with long term such as dust and the aesthetic changes from chaparral to dirt. How do these changes compare to the long-term effects of the unexplored alternatives? Please prepare an EIR.

The last area of concern is related to incremental aesthetic changes due to both the existing and proposed transmission line. The videos Time lapse video 1 and Time lapse video 2 show the incremental changes that have occurred since 2001 when we moved into our current residence. The approximate view points for those videos correspond to pins "pole 67 view 1" and "pole 67 view 2" in Figure 1.

The photo Sunset View 1, is the current sunset view. Based on the proposed location of pole, there will now be an additional transmission pole obscuring the sunset. Prior to the installation of the existing pole in the spring of 2010, this was not obscured by any transmission pole. How do these aesthetic changes compare to the unexplored alternatives? Please prepare an EIR.

Thank you.

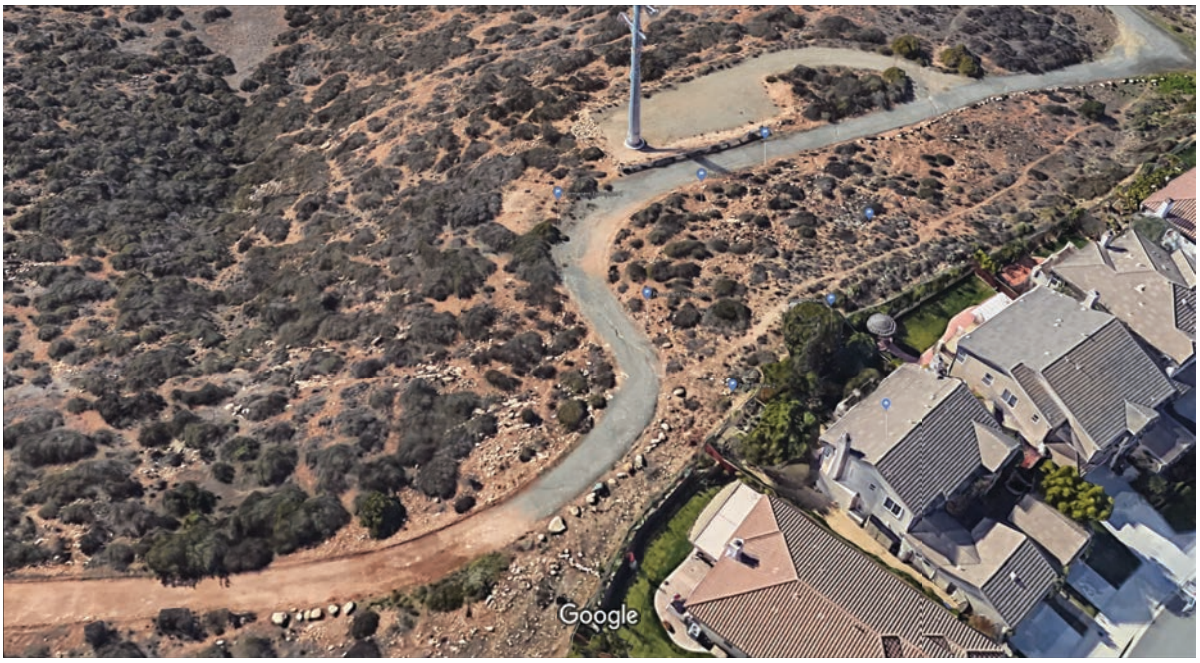


Figure 1

Sunset View 1

Time lapse video 1

Time lapse video 2

Misra, Mahendra

Misra, Mahendra (cont.)

Molander, Jen

Nelson, Charles

Nelson, Charles (cont.)

Nelson, Charles (cont.)

Nelson, Charles (cont.)

Nelson, Charles (cont.)

Oblander, Alisa

Penn, Colleen & Tom

Salter, Jamie

Schwend, Kurt

Kurt Schwend, MBA, PMP
2158 Island Shore Way
San Marcos, CA 92078
858-829-9006
kschwend@gmail.com

5/28/2019

Comments on SDG&E San Marcos to Escondido Tie Line 6975 69kV Project.

The purpose of this document is to request that a full Environmental Impact Report (EIR) be completed in relation to this project. The reason I believe this is necessary is that the Public Draft Initial Study is fatally flawed in that the evaluators failed to interview key stake holders in this project, greatly underestimated the aesthetic impact and risk of these new poles and wires, failed to adequately address long term fire risks caused by this project, and failed to address the public safety risk of this project. Due to the failure to adequately evaluate these risks, those involved in preparing this study also failed to propose effective mitigation. As a homeowner directly impacted by this project it seems to me that no real effort was made to truly evaluate the risks in this project. As a Project Management Professional I can attest that it is the responsibility of the Project Manager to clearly and completely outline all risks associated with a project, and the team involved in this project has not done so. The first step in a project like this should have been to interview a representative sample of all stakeholders. It is clear that homeowners affected by this project are key stakeholders, and no homeowners were interviewed. As a result, the evaluators significantly underestimated the visual, financial, and physical impact of this project.

The photo right shows the current power pole as seen looking east on San Marcos Blvd, just east of White Sands. As you can see, the existing

pole sits in a narrow alley of dirt approximately 5 feet wide, bounded on the left (north) by the sidewalk, and bounded on the right (south) by a wall. The only viable place to put the new poles is further south on the other side of the wall.

This second image shows the view from my backyard looking up at the same power pole and section of wall. As is shown, the hill is very steep with limited vegetation. The current pole is somewhat obscured by the wall, and the palm. The natural wood of the pole blends with the trees and makes it less obtrusive. Just to be clear, I am not complaining about the existing pole, it was there when I moved in and I accept it as such, though it's obvious that removing the pole and power lines would improve the aesthetics of my yard.

The third image is a projection of what the new pole would look like. Since there is no room north of the wall, the new poles would have to be installed south of the wall, or inside my and/or my neighbor's yard. Not only would this have an enormous negative impact on my view, it would move the power lines significantly and dangerously closer to a number of houses. It would significantly reduce property values in the neighborhood, and make it nearly impossible to sell the homes. For many of us, our homes represent a retirement investment and having these power poles in our

backyards, with power lines running over our roofs, would render our homes worthless, and wipe out this portion of our retirement savings. In the PDIS, in section 3.1.C, the team evaluating this project listed the aesthetic impact of this project as “Less than Significant” and the proposed mitigation as “None Required”. As clearly demonstrated above the aesthetic impact of this project for homeowners along San Marcos Blvd should have been listed as “Significant” with required mitigation. Two options for mitigation would be 1) reroute the lines to avoid homes (perhaps through the business area north of San Marcos Blvd, or 2) run the lines underground. I believe that a full EIR would confirm these statements and require that mitigation be implemented. An EIR would also provide a full evaluation of health risks to homeowners caused by moving multiple high voltage power lines significantly closer to residences.

My final request in respect to having a large, metal power pole in my backyard is this. If you would not want it in your backyard, you should not put it in mine. I understand that public need can sometimes outweigh individual needs, but when a viable alternative exists, every effort should be made to protect the physical, and financial security of the public.

The second flaw in this study is that it fails to adequately address the long term fire risk posed by these expanded lines. As has been demonstrated recently in California, wildfires pose significant risk to life and property. These new and expanded lines significantly increase the risk of a wildfire caused by wind driven debris, earthquake, material failure, and many other potential sources of power line induced sparks or fire. The study acknowledges the risk, but only proposes short term mitigation during construction. It leaves unanswered questions of long term risk, and therefore fails to propose effective long term risk mitigation. Again, rerouting the lines away from residences and natural areas, or running the lines underground are two possible solutions that were not proposed.

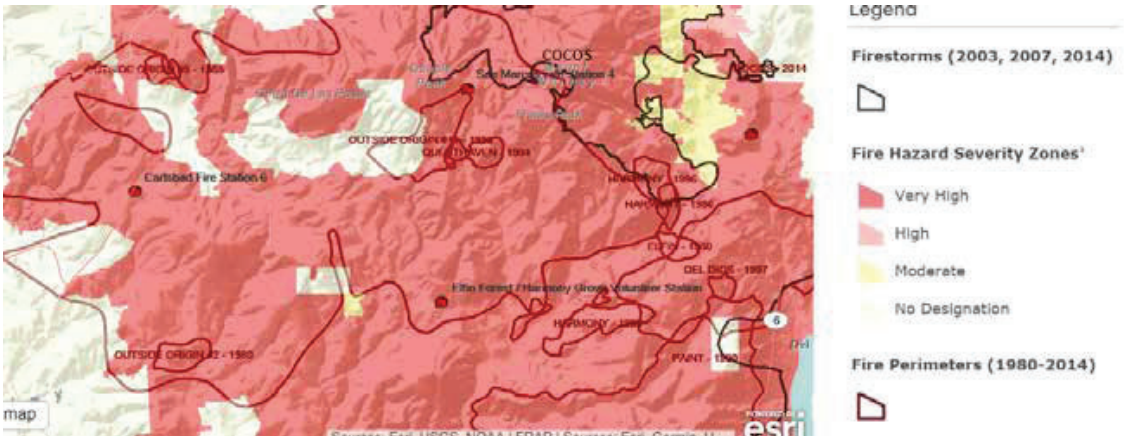
The third flaw in the study is that it fails to adequately address risks to public health and safety caused by the lines. In addition to the risks to homeowners caused by high voltage lines moving significantly closer to residential structures, the proposed new and upgraded lines run past San Marcos High School potentially blocking the exit. If a line were to come down, due to

winds, auto accident, earthquake or other cause, it would effectively trap students on the campus. There are also areas of San Elijo Hills that could have their only exit blocked. If a line were to go down, blocking the exit, and starting a wildfire these residents would be unable to evacuate and significant loss of life could result. A full EIR would identify and fully evaluate both the risk, and potential mitigation.

Thank you for the opportunity to comment on this project. While I understand that SDG&E and the PUC have identified a legitimate need to upgrade services in this area, I would submit that this proposal is not the best answer for SDG&E or the public, and that the PDIS/MND is incomplete at best, and purposely misleading at worst. The PUC's mission statement includes a commitment to safety, this proposal is not safe. The PUC's vision statements include their commitment to place the public interest above personal interest. As proposed, this project has a huge negative impact on the public. I urge the PUC to require SDG&E to complete a full EIR. I also urge SDG&E and the PUC to completely evaluate the risk and impact to residents (men, women, and children) in this area and to not put incremental profits or expediency ahead of public safety and welfare.

Sepulveda, Eve

Wildfire hazard map – exactly where they will be running these additional lines. No lines should be put through this area. They should be safely underground. We can't afford 14 hour blackouts every time there is a Santa Ana wind. It is dangerous that our street lights are out and it takes hours to get in our out of this area. Imagine if there was a fire. We would be trapped for hours.



From readysandiego.org

Simmons, Jason

Comment on the California Environmental Quality Act (CEQA) review of the proposed construction of San Diego Gas and Electric's (SDG&E) San Marcos to Escondido TL6975 69kV Project (Project).

Application Number: A.17-11-010

Developer: San Diego Gas and Electric (SDG&E)

Site: San Marcos, CA; Carlsbad, CA; Vista, CA; Escondido; CA; Unincorporated San Diego County

Proposal: Building of new power lines and re-building of existing structures

Objections Due: May 30, 2019

California's Public Utilities Commission (CPUC) has requested comments and concerns regarding the Project and the adequacy of the Public Draft Initial Study/Mitigated Negative Declaration (IS/MND). This is a letter of objection to the proposed development due to the lack of an in-depth Environmental Impact Report (EIR) by the CPUC. I object to the proposal in its current form and request the CPUC conduct an EIR for the following reasons:

1) Aesthetics – why construct a 12-mile circuitous above-ground route, when there is a legitimate alternative and direct 5.25-mile route underground? There should be an in-depth analysis of all other legitimate routes before diminishing the viewshed of community members. This area is known for its beautiful natural landscape where people enjoy being outdoors hiking or mountain biking. How will these new above-ground lines affect quality of life?
2) Wildfires – Without a robust wildfire study, how would the community even begin to feel comfortable or safe with the construction of 12-miles of above ground power lines in their backyards? The potential for increased power outages during wildfire season can have devastating consequences. The construction of these new lines undoubtedly increases fire risks and the fears of property owners.
3) Home Values – Property values are decreased when power lines are close by. If there are other potential underground routes, they should be studied in-depth before a decision is made to decrease neighborhood property values.
4) Green House Gasses – Only an in-depth EIR can address the reality of green-house gas effects from this proposed development. What are the levels of green-house gasses emanating from construction trucks on site? Will this affect air quality?
5) Noise – As a San Elijo homeowner, I am concerned about the noise levels this project may produce during construction. Once constructed, power lines emit noise due to corona discharge. This could take away from the peaceful enjoyment residents currently have while on our scenic trails.

For the reasons listed above, I do not feel that this proposed power line project by SDG&E should be approved without an in-depth EIR to comply with CEQA requirements.

Jason Simmons
San Elijo resident and San Marcos business owner

Soll, Daniela

Please ensure that an Environmental Impact Report is conducted!

My husband and I, and our 2-year old son live in a single-family home approximately 380 feet from the currently installed power lines in segment 2 of the proposed TL6975 project. When my husband and I purchased our home we thought a great deal about the distance from the home to the power lines and with the research we did, determined that we would proceed with the purchase of our home. Now, here we are, facing a project that will add more massive (40-110 feet tall), above-ground power lines, 30 feet closer to our home. Not only does this negatively impact the property value of the homes in our community, including our own, but there is also a concern regarding the EMFs and their impact on us and even more importantly our 2-year old son. We have had many conversations about the EMFs and the potential dangers of living this close to the above-ground power lines, and now, if this project is approved we would have to consider if putting up our home for sale and moving is really the safest option. It is my understanding that although there has been little evidence showing the dangers of EMFs (i.e. potential association with childhood leukemia), there also is little evidence showing that EMFs are safe. According to the SAN DIEGO GAS & ELECTRIC SAN MARCOS TO ESCONDIDO TIE LINE (TL) 6975 69kV PROJECT Report I see that the stance of the CPUC and California EMF Consensus Group is as follows; "We find that the body of scientific evidence continues to evolve. However, it is recognized that public concern and scientific uncertainty remain regarding the potential health effects of EMF exposure. We do not find it appropriate to adopt any specific numerical standard in association with EMF until we have a firm scientific basis for adopting any particular value." So, if the CPUC and CA EMF Consensus Group have uncertainty regarding the potential health effects of EMF exposure then how do we know if the "no-cost" or "low-cost" EMF management measures are even doing anything? Also, does it seem right that just because the uncertainty remains it makes sense to continue installing more power lines 30 feet closer to homes (in segment 2)?

In addition to the current project, it is my understanding that if this project passes and the above-ground power lines are installed, then SDG&E has the ability to add even more power lines to this area, without having to obtain additional permits, due to transmission rights-of-way. So, does this mean that we could (and probably would) end up with even more rows of massive above-ground power lines that we wouldn't be able to do anything about? In the Project Report I see that "Less than significant" was determined for "Impact 3.1.a: Have a substantial adverse effect on a scenic vista." and "Impact 3.1.c: Substantially degrade the existing visual character or quality of public views of the site and its surroundings, or since the project is in an urbanized area, whether it would conflict with applicable zoning and other regulations governing scenic quality." How is it possible that adding more 40-110 foot powerlines in our backyard and neighborhoods can be considered a "less than significant" impact? If you consider what the power lines used to look like (wood lines only ~30 feet tall) then I would say the current metal power lines would be considered a significant impact on the scenic vista, and adding more lines to this should also be considered significant. One of our neighbors indicated that the property value of her home decreased by 40 thousand dollars due to the current metal power lines as compared to the previous wood power lines. If just one home value is impacted negatively by 40k then all of the other homes in the surrounding neighborhoods will be impacted as well. The report also states; "From

north to south, Segment 2 would include the single-family residential area between Palomar Airport Road and White Sands Drive. After passing through the Via Allondra/Via Del Corvo neighborhood immediately south of White Sands Drive, the alignment would proceed over hilly undeveloped terrain to Meadowlark Junction. Approximately 2,500 feet north of this junction, the proposed alignment would skirt the west side of the single-family neighborhood along Sagewood Way, Copper Court, Brookside Court, and Rivercrest Road. While undeveloped, this area contains trails and maintained plantings." Just because the power lines are being placed in undeveloped areas, does not mean it does not have an impact on the people that live in these single-family neighborhoods. The cumulative impact of going from the wood power lines to the current power lines and now to a second set of metal power lines has to be considered. What about other communities in San Diego where underground power lines were installed? The SDG&E project "Bernardo to Rancho Carmel Substation Transmission Line Project" documentation states that; "This project involves the conversion of an existing 69-kV transmission line from an overhead alignment to an underground alignment between the Bernardo and Rancho Carmel substations. This includes removing approximately three miles of overhead transmission infrastructure and replacing it with an improved underground cable system along roadways within Rancho Bernardo Road, Camino San Bernardo, and Camino Del Norte. Project benefits • Increased reliability of the electric system. • Greater capacity for electricity to flow through our system in the surrounding communities. • Improved aesthetics in the surrounding areas. • Minimize environmental impacts and future maintenance." I would like to understand why one project is going underground in order to have increased reliability, greater capacity, improved aesthetics, and minimized environmental impact while another project seems to be proposed without consideration for any of these same items.

In addition to the potential hazards of the EMF and the substantial impact on the scenic vista and home values, there is also the issue of power lines and their potential role in starting wildfires. Last year our power was turned off for 12-24 hours because of high winds. I can understand that this is a risk mitigation strategy but it should not be THE mitigation strategy accepted in order to avoid wildfires during extreme weather conditions. If the Santa Ana winds had continued for a week, would our power have been turned off for a whole week? This does not seem like the right mitigation strategy if there are other options that can be considered before a project is started. Currently in the media we see that PG&E is dealing with bankruptcy and facing $30-50 billion in liabilities due to their role in the California wildfires. At the San Marcos City Council meeting earlier this month, we were told that it would be too expensive to install these power lines underground ($30 million for above-ground vs $90 million underground). All I can say is that if you look at the number of homes (3,500+ homes in San Elijo Hills alone) near this project and calculate the home values (the average single-family home in SEH is over 950k) and the fact that they are located in an 'extreme high fire zone', I would think that $90 million is a much easier number to deal with as compared to $30-$50 billion or more that SDG&E could face if the SDG&E power lines play a role in wildfires in our area. Not to mention, the loss of our lives really should not have a price tag associated with it. Currently, it is very difficult to even get homeowners insurance (and the cost for some is outrageously high) in our neighborhood and I suspect this will become increasingly more difficult if additional power lines are installed. When I look at the project plan I can see that SDG&E is attempting to use existing rights-of-way for this project to connect the San Marcos Substation to the Escondido Substation but what I don't quite understand is why the choice to add more

lines to 12 miles is better than trying to connect in a more direct route since the two power stations are only ~5.5 miles apart. Could this be the reason for the high cost? Is the comparison between 12 miles of above-ground lines versus 12 miles of underground lines? Perhaps this 12 mile stretch is not the best option? Were underground options or alternative routes even considered? If SDG&E's stance is that installing these power lines underground is too costly then I think this should be re-evaluated. It seems to me that SDG&E is trying to take the easiest and least expensive route without considering other options or taking into account the real impact of the project on the people that live in these communities.

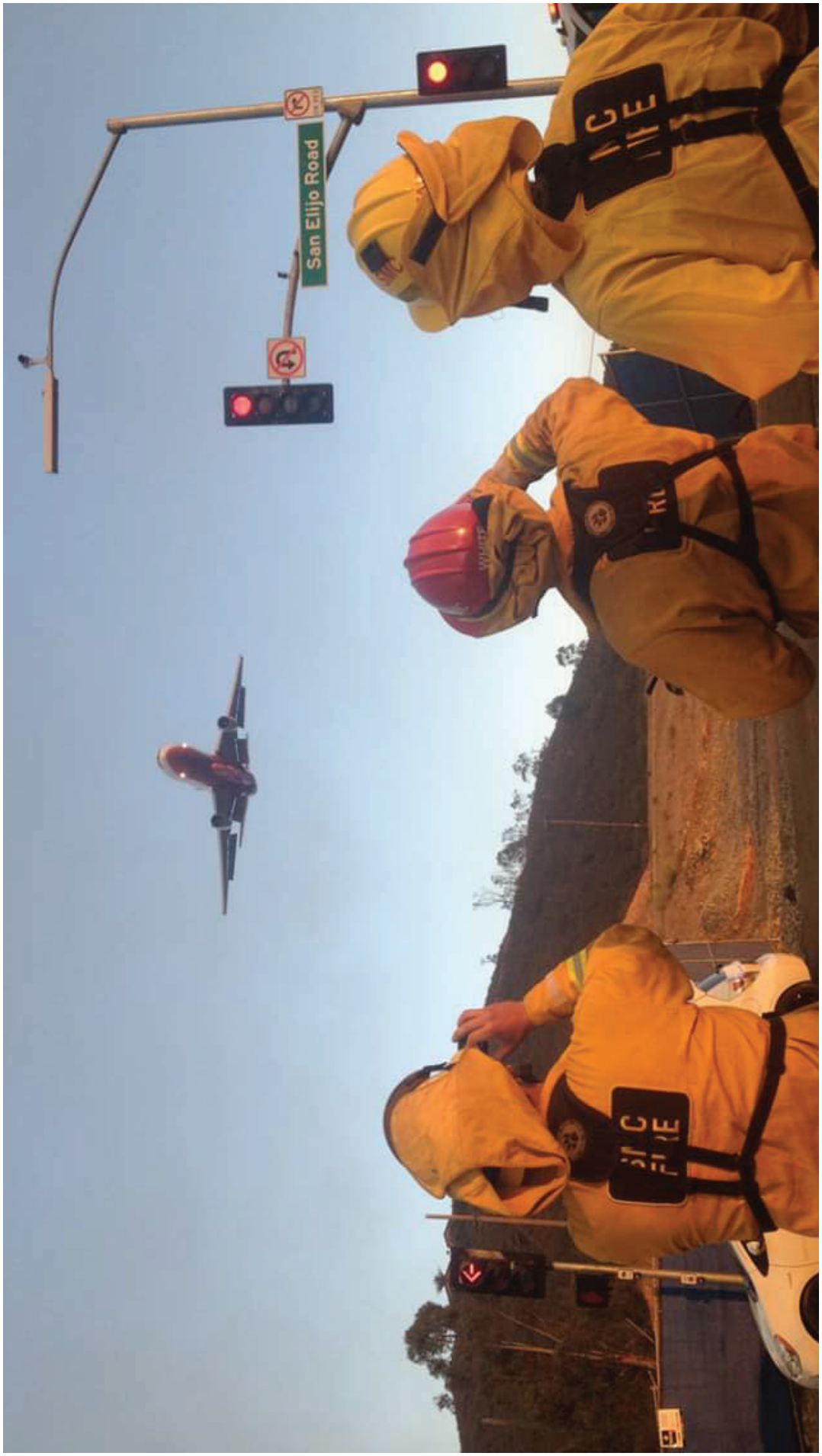
The TL6975 69kV PROJECT Report states; "If the agency determines there is substantial evidence that the Project may cause a significant effect on the environment, it shall prepare an Environmental Impact Report (EIR)." Do we truly know the environmental impact on the project without an EIR? I ask you to please, please consider the importance of this decision and the true impact it will have on the homes and people that live in these communities. At minimum, please ensure that an EIR is conducted and that the underground or alternative route options are considered. Thank you.

NEW AT 6:00
NEIGHBORS FIGHT PLAN TO BUILD MORE POWER LINES
SAN MARCOS
news
abc 10
6:05 66°

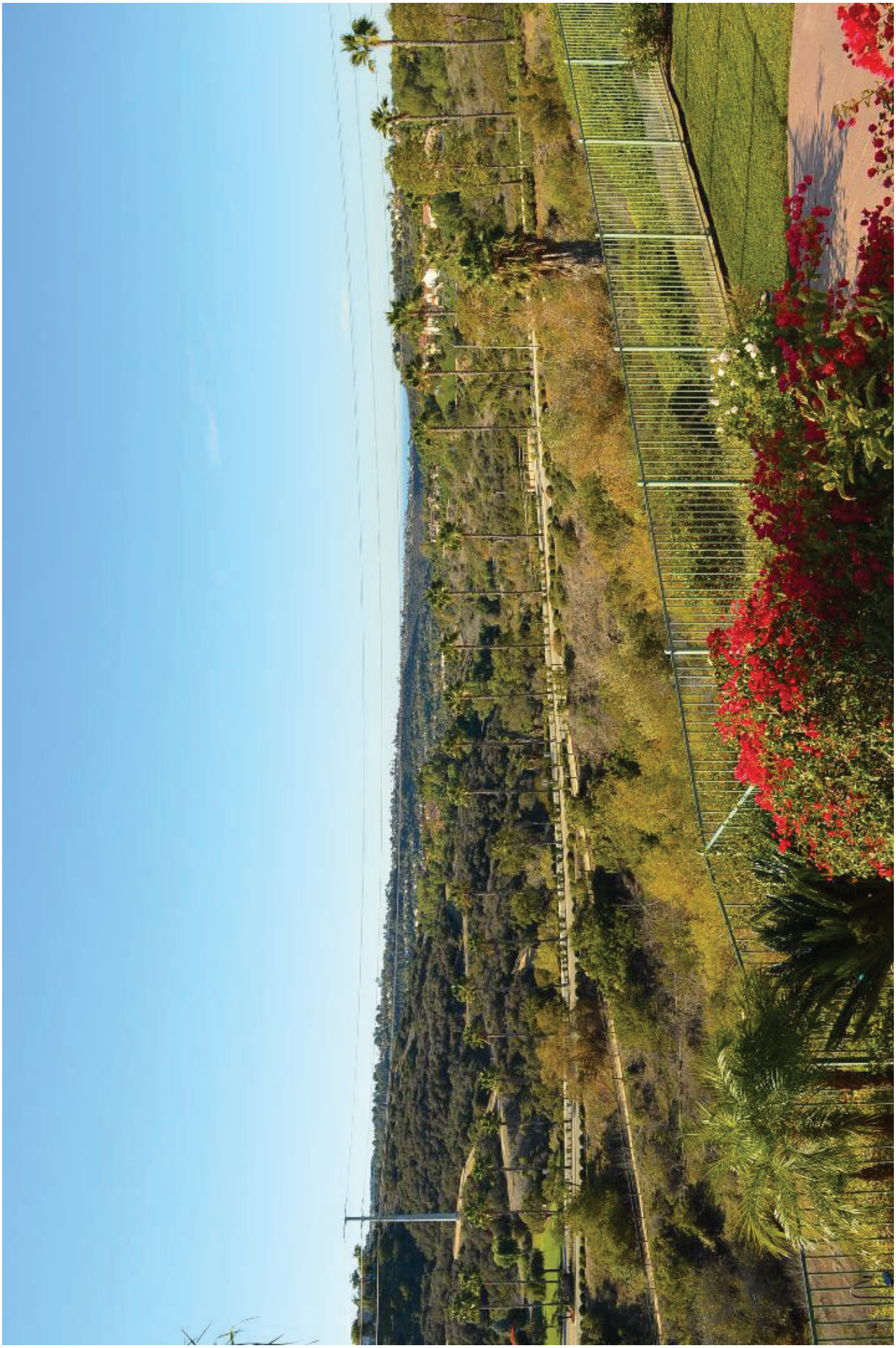
Trotten, Irene

Trotten, Irene (cont.)

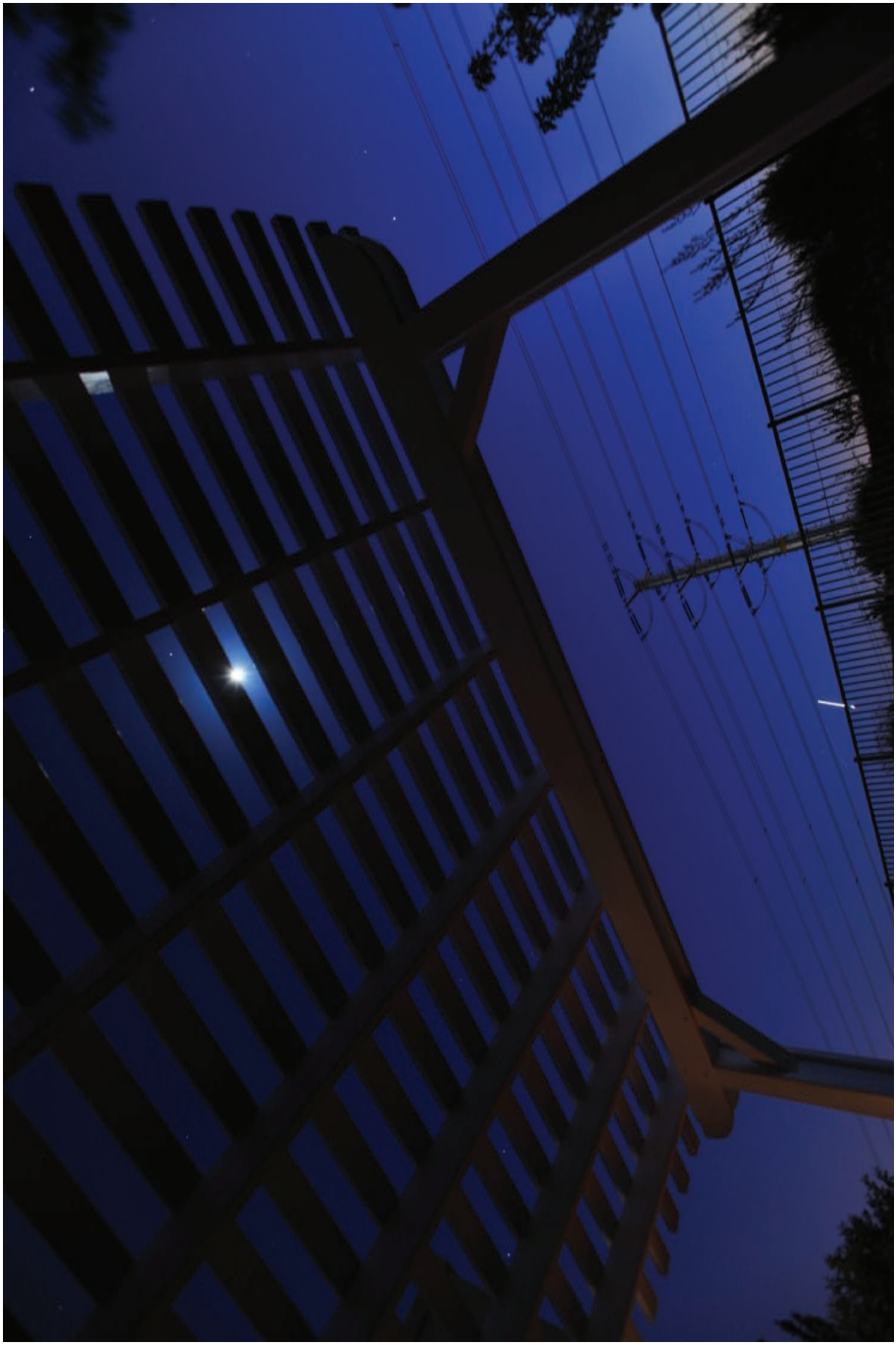
Vafaei, Shilda

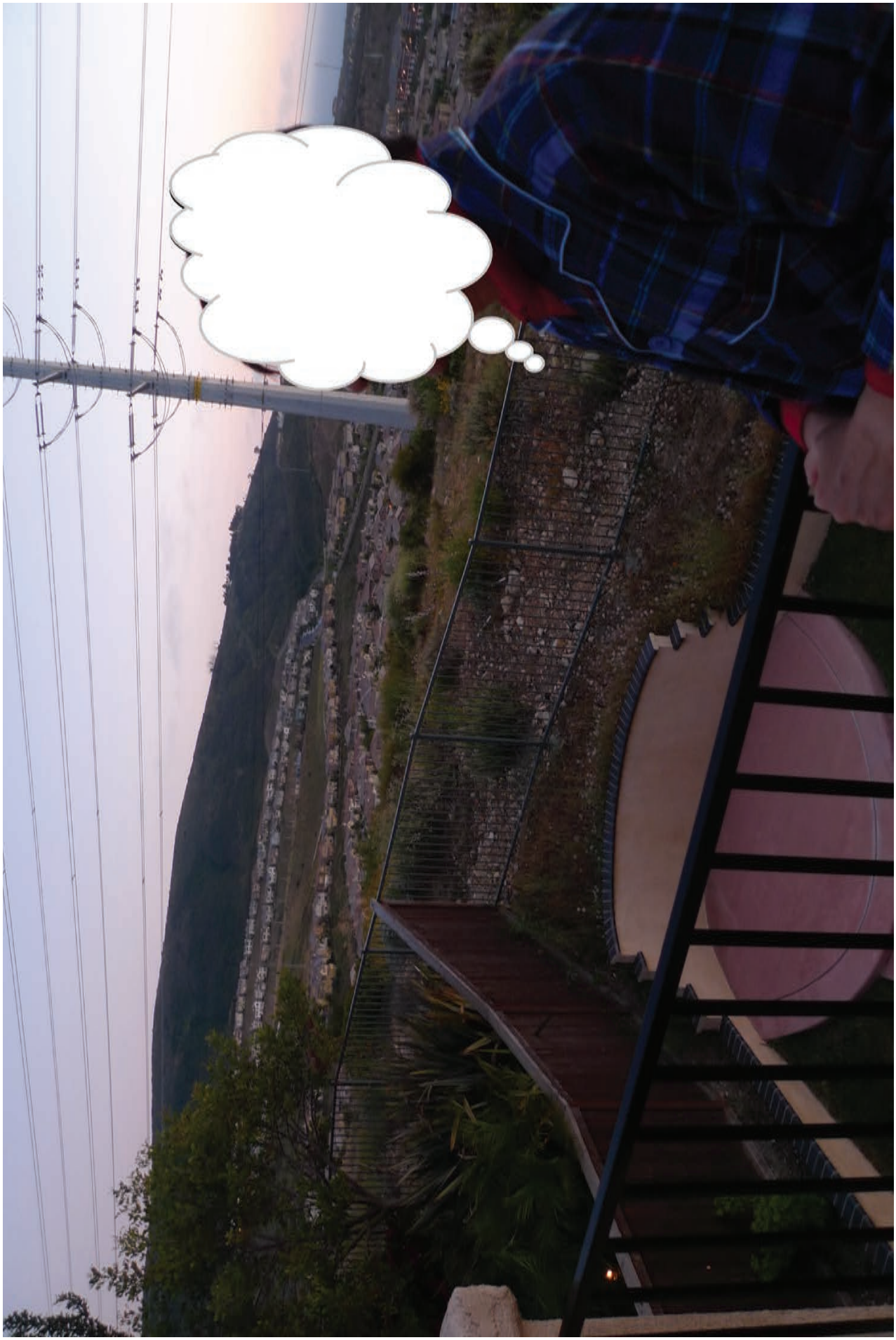


Wills, Edward



Wu, Grace





Appendix B.3: Petition

This petition has collected
266 signatures
using the online tools at ipetitions.com

Printed on 2019-04-23

STOP The Power lines

About this petition

We request SDG&E’s proposed transmission line project (TL6975) running approximately 12 miles, connecting the San Marcos substation to the Escondido substation not be built by adding additional above ground power line poles.

Instead, we propose the new transmission line be built underground as outlined in SDG&E’s proposed alternative route C in SDG&E’s "PROPONENT’S ENVIRONMENTAL ASSESSMENT", dated November 15, 2017 or through a combination of alternatives that SDG&E has considered that meet the project objectives.

This petition is being circulated by a volunteer.

Signatures

1. Name: Patrick Hadley on 2018-11-28 21:49:07
Comments:

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2. Name: Katherine Hadley on 2018-11-29 00:57:12
Comments:

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3. Name: Andrea Lukowiak on 2018-11-29 01:26:25
Comments:

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4. Name: Suzanne Beyerlein on 2018-11-29 01:38:52
Comments:

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5. Name: Dave Beyerlein on 2018-11-29 01:39:26
Comments:

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6. Name: Tiffany Lena on 2018-11-29 01:41:46
Comments:

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7. Name: Amy Falco on 2018-11-29 01:43:34
Comments: They are unsightly and a hazard. I live on a street directly affected. Please put them underground.

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8. Name: Debi Doyle on 2018-11-29 01:45:42
Comments:

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9. Name: Irene Totten on 2018-11-29 02:02:56
Comments: Above ground power lines make no sense with our current climate changes. They are a fire hazard!

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10. Name: Heather Wellong on 2018-11-29 02:05:07
Comments: Please look at alternatives- this is right behind our house and we are not comfortable with this current option.

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11. Name: Greg Wellong on 2018-11-29 02:05:48
Comments:

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12. Name: Elizabeth Wosika on 2018-11-29 02:10:35
Comments:

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13. Name: Amanda Muri on 2018-11-29 02:17:44
Comments:

14. Name: Vanessa Stewart on 2018-11-29 02:21:52
Comments:

15. Name: Trisha Mortier on 2018-11-29 02:25:49
Comments:

16. Name: beverly jacoby on 2018-11-29 02:29:06
Comments:

17. Name: Jolie Fortuna on 2018-11-29 02:41:43
Comments:

18. Name: Jennean Munro on 2018-11-29 02:43:43
Comments:

19. Name: Shannon Barnett on 2018-11-29 02:44:45
Comments:

20. Name: Jennifer Dufek on 2018-11-29 02:47:42
Comments:

21. Name: Jennifer Dieduardo on 2018-11-29 03:00:15
Comments:

22. Name: Marla Trussell on 2018-11-29 03:01:42
Comments:

23. Name: Heather Walker on 2018-11-29 03:05:28
Comments:

24. Name: Erin DeWitt on 2018-11-29 03:13:18
Comments:

25. Name: Paige Marvil on 2018-11-29 03:19:10
Comments:

26. Name: Karen Overton on 2018-11-29 03:21:23
Comments:

27. Name: Kristi Roehm on 2018-11-29 03:23:02
Comments: We live in SEH in San Marcos and are very concerned about the fire hazards

and lack of roads/pathways out of San Elijo Hills while several new housing developments have been added. Why would SDGE intentionally create added risk to our community by adding power lines when we are literally surrounded by an abundance of flammable pine trees??

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28. Name: Chelsea Verhoff on 2018-11-29 03:29:19
Comments:

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29. Name: Andrea Nanigian on 2018-11-29 03:46:19
Comments:

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30. Name: Rosy Weir on 2018-11-29 03:48:14
Comments:

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31. Name: Adriene Leung on 2018-11-29 03:50:25
Comments:

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32. Name: Natalie Fontanetta on 2018-11-29 03:57:16
Comments:

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33. Name: Cheryl Meyer on 2018-11-29 03:58:28
Comments:

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34. Name: April Sparks on 2018-11-29 03:58:40
Comments: We already have power lines directly behind our homes. Adding more 50 feet closer to our homes is not ok. With the fire danger, all power lines near the dry brush should be placed underground. Our power was shut off during the last Santa Ana winds due to the power lines behind our homes. The cost of putting them underground is nothing compared to the cost of San Elijo going up in flames.

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35. Name: Luis Leung on 2018-11-29 04:00:46
Comments:

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36. Name: Joan Miguel on 2018-11-29 04:10:10
Comments:

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37. Name: Julie Hainsworth-Wynia on 2018-11-29 04:11:50
Comments:

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38. Name: Roger Clark on 2018-11-29 04:12:30
Comments:

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39. Name: Art Miguel on 2018-11-29 04:13:05

Comments:

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40. Name: Tiffany Allen on 2018-11-29 04:19:23
Comments:

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41. Name: Laura Rilling on 2018-11-29 04:37:10
Comments:

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42. Name: Lindsay Reese on 2018-11-29 04:42:17
Comments:

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43. Name: Danielle DiNorscia on 2018-11-29 04:43:33
Comments:

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44. Name: Jamie Christman on 2018-11-29 04:43:33
Comments:

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45. Name: Elizabeth Coll on 2018-11-29 04:54:29
Comments:

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46. Name: Bradley Vilen on 2018-11-29 05:02:28
Comments:

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47. Name: Susan Watanabe on 2018-11-29 05:12:44
Comments:

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48. Name: Keith Watanabe on 2018-11-29 05:13:44
Comments:

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49. Name: Shawndy Elam on 2018-11-29 05:13:58
Comments:

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50. Name: Susan Pack on 2018-11-29 05:16:01
Comments:

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51. Name: Stephanie moore on 2018-11-29 05:19:53
Comments:

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52. Name: Katharyn Canfield on 2018-11-29 05:20:04
Comments:

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53. Name: Kristin salazar on 2018-11-29 05:31:18

Comments:

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54. Name: Jill Wells on 2018-11-29 05:34:57
Comments:

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55. Name: Shawn Roybal on 2018-11-29 05:37:23
Comments: No more power lines!!!

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56. Name: Ladonne Joseph on 2018-11-29 05:42:46
Comments:

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57. Name: Barbara Harlow on 2018-11-29 05:45:44
Comments:

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58. Name: Andrea Patressi Rebis on 2018-11-29 05:45:48
Comments:

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59. Name: Mike dinorscia on 2018-11-29 05:59:35
Comments:

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60. Name: Nicolas D Jonville on 2018-11-29 06:04:58
Comments: We need these power lines underground for general safety... many wild fires in the recent past appear to be the result of powerline/generator issues, and they can affect property values. Any new power lines should be underground in my opinion, particularly in residential and brush areas.

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61. Name: Ilana Huff on 2018-11-29 06:20:43
Comments: All of us residents need to get together and stop this. These power lines will also affect property values. SDG&E needs to put these underground. We need our voices heard!

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62. Name: Kham Srilasak on 2018-11-29 06:23:32
Comments:

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63. Name: Yukako Mese on 2018-11-29 06:24:02
Comments:

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64. Name: Craig Gilbert on 2018-11-29 06:24:36
Comments:

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65. Name: Emily Wilhelms on 2018-11-29 06:42:29
Comments:

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66. Name: Daniela soll on 2018-11-29 06:43:35
Comments:

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67. Name: Heather Whelan on 2018-11-29 06:48:57
Comments:

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68. Name: Dana Paris on 2018-11-29 09:39:19
Comments: Put power lines underground

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69. Name: Elsie Wilburn on 2018-11-29 11:22:25
Comments:

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70. Name: Lisa Kaltenbach on 2018-11-29 11:51:11
Comments:

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71. Name: Dana Pustinger on 2018-11-29 13:01:18
Comments:

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72. Name: Ali Barbee on 2018-11-29 13:49:36
Comments:

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73. Name: Natalie Morris on 2018-11-29 13:55:06
Comments:

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74. Name: Mary Handy on 2018-11-29 13:59:48
Comments:

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75. Name: Michelle Vetlesen on 2018-11-29 14:15:01
Comments:

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76. Name: Alison Milhous on 2018-11-29 14:18:49
Comments:

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77. Name: Guy Walker on 2018-11-29 14:22:08
Comments: Please, no more above power lines in our community.....only below ground!

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78. Name: Lisa Druxman on 2018-11-29 14:35:10
Comments:

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79. Name: Jason Druxman on 2018-11-29 14:42:36
Comments:

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80. Name: Janet Martis on 2018-11-29 14:49:35
Comments: No power lines!

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81. Name: Sarah thor on 2018-11-29 14:53:35
Comments:

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82. Name: Melissa Nicolas on 2018-11-29 15:01:58
Comments:

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83. Name: Elaine Kelly on 2018-11-29 15:06:17
Comments:

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84. Name: Gwen Schvimmer on 2018-11-29 15:35:40
Comments:

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85. Name: Erika Walker on 2018-11-29 15:40:56
Comments: we do not want power lines behind our Sagewood community in San Elijo Hills! It will kill values between 50 to $75,000! I am a real estate broker and I sell over here and I see it all the time plus the buzzing sound is not healthy for the kids or families! Put it on the ground or move it somewhere else

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86. Name: Cynthia Nosewicz on 2018-11-29 15:47:48
Comments: Absolutely not!

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87. Name: Jessica Heinz on 2018-11-29 15:52:11
Comments: SDGE should not be allowed to construct an above ground power line here. The proposed path has lots of vegetation. SEH already has substantial fire risks. Don’t add to the problem.

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88. Name: Keely Burns on 2018-11-29 15:57:44
Comments:

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89. Name: Deborah Finney on 2018-11-29 17:12:50
Comments: Stop putting lives at risk.

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90. Name: Beth Houser on 2018-11-29 17:49:07
Comments:

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91. Name: Kari Preston on 2018-11-29 18:01:42
Comments:

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92. Name: Cory Nelkin on 2018-11-29 18:43:12
Comments:

93. Name: Gabrielle Sullivan on 2018-11-29 18:53:47
Comments:

94. Name: Camille Parsons on 2018-11-29 19:19:40
Comments: This can potentially become another Campfire for San Elijo Hills!

95. Name: Katie Sheriff on 2018-11-29 19:44:12
Comments:

96. Name: Mary Maloney on 2018-11-29 19:46:05
Comments: No more power lines in San Elijo Hills. These are not only a fire & health hazard, but can significantly impact home values. The alternative plan is a much more prudent option for everyone.

97. Name: Lorena Weaver on 2018-11-29 20:00:00
Comments:

98. Name: Cindy Brand ff on 2018-11-29 20:14:12
Comments:

99. Name: Morgan manning on 2018-11-29 20:16:07
Comments:

100. Name: Danielle Harway on 2018-11-29 20:37:13
Comments: The building that is putting lives at risk has to stop. Period. Power lines included.

101. Name: Katie Grubb on 2018-11-29 20:42:59
Comments:

102. Name: Andrew W Hadley on 2018-11-29 20:54:41
Comments:

103. Name: Jamie Lang on 2018-11-29 21:21:50
Comments:

104. Name: Kevin Lang on 2018-11-29 21:27:09
Comments:

105. Name: Danielle Allison on 2018-11-29 21:49:56
Comments: We are in a highly susceptible area to wildfires. There needs to be caution

and exploration of impact before throwing up more development

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106. Name: Kristina Spaete on 2018-11-29 21:56:03
Comments:

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107. Name: Carl Spaete on 2018-11-29 21:56:50
Comments:

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108. Name: brandi hessick on 2018-11-29 22:46:54
Comments:

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109. Name: Danielle Jackola on 2018-11-29 22:49:32
Comments:

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110. Name: Jackie Williams on 2018-11-29 22:56:32
Comments:

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111. Name: Amy Schlegel on 2018-11-29 22:57:39
Comments:

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112. Name: Ashley on 2018-11-29 22:57:43
Comments:

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113. Name: Sandra Hermanson on 2018-11-29 23:03:01
Comments:

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114. Name: Christopher govers on 2018-11-29 23:16:23
Comments:

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115. Name: Melissa Ohara on 2018-11-29 23:17:12
Comments:

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116. Name: Jennifer duke on 2018-11-29 23:42:29
Comments:

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117. Name: Cari Shaffer on 2018-11-29 23:57:55
Comments: We definitely do not want more power above ground power lines running through San Elijo Hills or anywhere in San Marcos! The below ground option must be explored.

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118. Name: Stephanie Cowan on 2018-11-30 01:01:11
Comments:

119. Name: Aaron Gaines on 2018-11-30 01:34:07
Comments:

120. Name: Paul Quinn on 2018-11-30 02:18:37
Comments:

121. Name: Jennifer Bartholomew on 2018-11-30 03:08:16
Comments:

122. Name: Michaelann Carroll on 2018-11-30 03:09:29
Comments:

123. Name: Blair on 2018-11-30 03:33:17
Comments:

124. Name: Mary Hauri on 2018-11-30 04:24:05
Comments:

125. Name: Sandhya Tippur on 2018-11-30 05:16:07
Comments:

126. Name: Lauren Washburn on 2018-11-30 06:50:02
Comments:

127. Name: Cindy Knowles on 2018-11-30 15:42:31
Comments:

128. Name: Curt Knowles on 2018-11-30 15:43:20
Comments:

129. Name: Tami stipcich on 2018-11-30 17:29:48
Comments:

130. Name: Joshua Stipcich on 2018-11-30 17:31:11
Comments:

131. Name: Paul Sangster on 2018-11-30 20:54:47
Comments:

132. Name: Courtney Gerk on 2018-11-30 23:05:48
Comments:

133. Name: Jerry Bolin on 2018-12-01 01:17:01
Comments: These lines would lower our property values significantly

134. Name: Lance Jackola on 2018-12-01 05:24:39
Comments:

135. Name: Craig pobst on 2018-12-01 05:26:15
Comments:

136. Name: Eric on 2018-12-01 14:41:16
Comments:

137. Name: Elaine Kelly on 2018-12-01 15:05:45
Comments:

138. Name: Melissa Wallace on 2018-12-01 15:12:45
Comments:

139. Name: Tina van Hamersveld on 2018-12-02 00:30:07
Comments:

140. Name: Chris van Hamersveld on 2018-12-02 02:24:09
Comments:

141. Name: Julie Gonick on 2018-12-02 14:27:32
Comments:

142. Name: Katie Jo Keeling on 2018-12-02 15:13:53
Comments:

143. Name: Katie Gaines on 2018-12-03 17:12:48
Comments:

144. Name: Amber Narsncich on 2018-12-03 19:22:56
Comments:

145. Name: Emily Milla on 2018-12-03 19:42:01
Comments:

146. Name: Alice Rowe on 2018-12-03 19:54:20
Comments:

147. Name: Angie Triana on 2018-12-03 20:09:10
Comments:

148. Name: brent kelly on 2018-12-03 22:24:09
Comments:

149. Name: Susanna Pagan on 2018-12-03 23:20:08
Comments:

150. Name: Kristal Jabara on 2018-12-04 01:52:36
Comments:

151. Name: Brandi Atteberry on 2018-12-04 02:41:00
Comments:

152. Name: Melisa Korry on 2018-12-04 03:03:19
Comments:

153. Name: Lisa Filippone on 2018-12-04 03:19:55
Comments: It is already difficult to get home owners insurance due to fire risk. Adding more above ground power lines is dangerous and irresponsible.

154. Name: Carol Clause on 2018-12-04 03:21:02
Comments:

155. Name: Alicia Reynolds on 2018-12-04 04:29:40
Comments:

156. Name: Kamara Chergosky on 2018-12-04 07:14:38
Comments:

157. Name: Rick Imber on 2018-12-04 13:10:09
Comments: I have been to public information meetings from SDGE on this new power line. I am informed on why/where/how and reject this new power line! Inpropose they put it under ground

158. Name: Wendy Fisher on 2018-12-04 13:28:33
Comments:

159. Name: Kelly Willis on 2018-12-04 14:17:46
Comments:

160. Name: Jeannine Melville on 2018-12-04 19:32:02
Comments:

161. Name: Do Laraway on 2018-12-05 05:04:37
Comments: Absolutely agree with the request. We definitely don't want more above ground power lines.

162. Name: Jodi Parkey on 2018-12-05 05:36:56
Comments:

163. Name: Whitney Fields on 2018-12-05 13:49:09
Comments: Thank you for ciruclating this petition! NO MORE POWER LINES IN RANCHO DORADO!!! We already have them running through the center of our beautiful neighborhood. When these were installed several years ago, we were told that they were leaving room to add more lines if necessary but now they want to put in more towers! This is unacceptable and greatly impacts the value of our homes, not to mention the increased risk for fire!

164. Name: Salina Polentz on 2018-12-05 18:18:29
Comments:

165. Name: Derek Adams on 2018-12-05 20:06:53
Comments:

166. Name: Vonnie Gross on 2018-12-06 04:09:06
Comments: I agree they are really an eyesore and take from the beauty of the lovely hill's and natural landscape.How safe are they?

167. Name: Kelley Berman on 2018-12-06 04:21:34
Comments: In this day-and-age powerlines should be safely buried underground.

168. Name: Paul Cloutier on 2018-12-06 05:39:28
Comments:

169. Name: Ed Philbrick on 2018-12-06 17:27:42
Comments: The impact to home values, views and fire safety are a concern.

170. Name: Tina Dickson on 2018-12-06 17:28:48
Comments:

171. Name: Ann Arriagada on 2018-12-06 17:29:51
Comments:

172. Name: Mary on 2018-12-06 17:31:16
Comments:

173. Name: J Yambao on 2018-12-06 17:34:06
Comments:

174. Name: Lisa Serhan on 2018-12-06 17:34:59
Comments:

175. Name: Andrea Kriegler on 2018-12-06 17:35:35
Comments:

176. Name: Ginni sobti on 2018-12-06 17:38:13
Comments:

177. Name: Sandra Herman on 2018-12-06 17:38:52
Comments:

178. Name: Larry Witt on 2018-12-06 17:47:07
Comments:

179. Name: Michelle Wilson on 2018-12-06 17:49:27
Comments:

180. Name: Mike Lena on 2018-12-06 17:51:44
Comments:

181. Name: Christy Ortiz on 2018-12-06 17:54:59
Comments:

182. Name: Ben Jaccarino on 2018-12-06 17:57:58
Comments:

183. Name: Heidi Johnson on 2018-12-06 18:05:19
Comments:

184. Name: Kimberly Herrmann on 2018-12-06 18:05:51
Comments:

185. Name: John Blake-haskins on 2018-12-06 18:06:26
Comments:

186. Name: Michell Thitathan on 2018-12-06 18:08:45
Comments: Pay a bit more now to do it properly so you/we don't have to pay much higher to fix it (and the damage fires from it may cause) down the road. Play the long game!

187. Name: Natasha Thayer on 2018-12-06 18:20:42
Comments:

188. Name: Carolann lucian on 2018-12-06 18:22:58
Comments:

189. Name: Responsible Cell on 2018-12-06 18:25:55
Comments: Responsible Cell has worked with San Elijo Hill residents for the betterment and safety of our community. We opposed the San Elijo Cell Tower Complex that the San Marcos City Council approved in the middle of our community. We also oppose the SDG&E proposed transmission line project. Please let us know how we can help get SDG&E to put these lines underground.

190. Name: Jeff raunig on 2018-12-06 18:40:38
Comments:

191. Name: Domenica Pearl on 2018-12-06 18:56:52
Comments:

192. Name: Stephanie Buser on 2018-12-06 19:28:28
Comments:

193. Name: Nona Rangel on 2018-12-06 19:34:18
Comments:

194. Name: Angie Mosteller on 2018-12-06 19:43:04
Comments:

195. Name: Charity Abelardo on 2018-12-06 20:15:58
Comments:

196. Name: Doral Fredericks on 2018-12-06 20:40:38
Comments:

197. Name: Darcy Jensen-Heller on 2018-12-06 21:05:15
Comments:

198. Name: Nicole Apostolakos on 2018-12-06 22:53:33
Comments:

---

199. Name: Chuck Deerinck on 2018-12-06 23:13:00
Comments:

---

200. Name: Kevin Mecum on 2018-12-06 23:49:23
Comments:

---

201. Name: Jodie shazer on 2018-12-07 00:32:49
Comments:

---

202. Name: Christine Sanchez on 2018-12-07 03:00:36
Comments: Enough is enough! Please

---

203. Name: Steven Harvey on 2018-12-07 03:18:38
Comments: Protect our homes, bury these lines.

---

204. Name: Tracey Foster on 2018-12-07 03:45:55
Comments:

---

205. Name: David Soule on 2018-12-07 05:04:53
Comments: No poles

---

206. Name: Aimee Cameron on 2018-12-07 05:15:16
Comments:

---

207. Name: Rita zapko on 2018-12-07 06:11:18
Comments: Please explore underground options. Cocos fire evacuation was terrible, and we have more cars, houses, and people now.

---

208. Name: Santiago Chuck on 2018-12-07 13:22:37
Comments:

---

209. Name: Patricia Blackburn-Benavente on 2018-12-07 13:43:05
Comments:

---

210. Name: Kim Horanyi on 2018-12-07 14:21:23
Comments:

---

211. Name: Nicole Boros on 2018-12-07 14:39:02
Comments:

212. Name: Debra Cuccia on 2018-12-07 16:30:48
Comments:

213. Name: Christine herr on 2018-12-07 18:54:53
Comments:

214. Name: Matt Elson on 2018-12-07 19:50:04
Comments: We already have lines and the addition will drastically hinder housing costs, increase fire probability, and destroy the views we paid for. Underground needs to be the only way this happens.

215. Name: Laura Kay Meyer on 2018-12-07 19:53:37
Comments:

216. Name: Elliot Herman on 2018-12-07 21:00:03
Comments: The better route is underground which would be more reliable in the first place.

217. Name: Debbie Edwards on 2018-12-07 21:58:20
Comments:

218. Name: Rachel Cuevas on 2018-12-07 22:45:31
Comments:

219. Name: Brad Soll on 2018-12-08 04:03:49
Comments:

220. Name: Eleanor Stewart-Garbrecht on 2018-12-08 04:34:32
Comments:

221. Name: Irma Galvan on 2018-12-08 06:36:50
Comments:

222. Name: Travis Fisher on 2018-12-08 12:47:11
Comments: No above ground ugly and dangerous

223. Name: Libbi on 2018-12-08 21:00:36
Comments:

224. Name: David Exner on 2018-12-08 23:37:24
Comments:

225. Name: Doug Haroldson on 2018-12-08 23:44:06
Comments: Please put this underground or find other alternatives SDG&E! You have not shown a true justification for this line...

226. Name: Todd Sheive on 2018-12-09 01:06:35
Comments: Fire danger and negative effect on home values are reason enough to force these underground.

227. Name: Jean Young on 2018-12-09 01:11:08
Comments: Please put the lines underground for safety and appearance.

228. Name: Susana Castillo on 2018-12-09 03:24:47
Comments: We are completely against of any structure that put our families at risks, fires, health related issues, etc and also deteriorating our beautiful Rancho Dorado neighborhood views.

229. Name: Gregory D Phillips on 2018-12-09 03:26:31
Comments: As a homeowner whose property is adjacent to the proposed new lines, I am concerned about fire risk and property values. Better alternatives exist and should be pursued.

230. Name: Keyvan Malekshamran on 2018-12-09 03:30:59
Comments: We are completely against of any structure that put our families at risks, fires, health related issues, etc and also deteriorating our beautiful Rancho Dorado neighborhood views.

231. Name: Jason Curry on 2018-12-09 05:39:58
Comments:

232. Name: Carolyn Curry on 2018-12-09 05:40:36
Comments:

233. Name: ya on 2018-12-09 06:23:52
Comments: Underground lines make better long term sense. Please revisit this option.

234. Name: Elliot Baum on 2018-12-09 14:31:28
Comments: I live in San Marcos and want to have as many power lines put underground for the safety of our community.

235. Name: Shannon Baum on 2018-12-09 14:32:16
Comments: I live in San Marcos and want to have as many power lines put underground for the safety of our community.

236. Name: Kurt Schwend on 2018-12-09 15:29:33
Comments: As a homeowner directly on the current proposed route, this would have a significant negative impact on my home's value, and my ability to sell in the future. It will create an eyesore in the community. It is ridiculous that this would be considered when a reasonable alternative exists that would protect all parties, accomplish the goal, and improve the neighborhoods impacted.

237. Name: Catherine Leach-Phillips on 2018-12-09 21:27:25
Comments: These power lines should be put underground. Above ground, they are a fire hazzard. My backyard faces the canyon where these new poles will go.

238. Name: Jay on 2018-12-10 06:17:15
Comments:

239. Name: Kelley Carlstrom on 2018-12-10 07:10:50
Comments:

240. Name: Andrew Carlstrom on 2018-12-10 07:11:39
Comments:

241. Name: John Garbrecht on 2018-12-10 12:45:10
Comments:

242. Name: Shawn Peddycord on 2018-12-10 17:04:37
Comments:

243. Name: Jon Lycett on 2018-12-11 02:57:32
Comments: Undergrounding these lines eliminates all permanent impacts, leaving only the temporary impacts associated with construction. As proposed, the lines create a substantial impact on the environment, which SDG&E does not adequately identify or analyze in its PEA.

244. Name: Craig McDowell on 2018-12-12 01:22:06
Comments:

245. Name: Sirlei on 2018-12-13 00:32:29
Comments:

246. Name: JJ Springer on 2018-12-13 20:41:23
Comments:

247. Name: Sharon Floyd on 2018-12-14 04:36:04

Comments:

---

248. Name: Scott Weiner on 2018-12-15 01:15:44
Comments: Underground option sounds like the best way to go.

---

249. Name: Joseph P Graf on 2018-12-21 18:47:11
Comments:

---

250. Name: Cheryl Moulton on 2018-12-27 08:24:43
Comments: No more above ground power lines! They are unsightly and dangerous. The underground option should be pursued.

---

251. Name: Frances Donnelly on 2018-12-28 18:04:11
Comments:

---

252. Name: Donna Barton on 2019-01-11 19:27:09
Comments:

---

253. Name: Kimberly Dailey on 2019-01-22 14:02:49
Comments:

---

254. Name: Sean Hermanson on 2019-04-02 21:54:31
Comments: Above ground power lines are detrimental to the communities around them.

---

255. Name: Joseph Rebis on 2019-04-06 23:27:00
Comments:

---

256. Name: Amy Riviere on 2019-04-10 16:52:58
Comments:

---

257. Name: Greg on 2019-04-14 19:55:59
Comments: Go underground and also bury the existing cables!

---

258. Name: Nancy Forcier on 2019-04-16 05:16:46
Comments: Stop the above ground power lines!

---

259. Name: John W Conforti on 2019-04-16 16:16:47
Comments:

---

260. Name: Bruce Schryver on 2019-04-16 20:54:57
Comments: SDG&E has no regard for residents nor the environment. Look at the promises over the Sunrise Powerlink...we would have plenty of energy for the future,

even without San Onofre. Then it's back to the same old story, we need more and more. How many lies does it take to convince residents SDG&E never tells the truth!

---

261. Name: Elizabeth Siqueira on 2019-04-16 20:59:23
Comments:

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262. Name: Isa Araneo on 2019-04-17 04:17:45
Comments:

---

263. Name: Ricardo Siqueira on 2019-04-17 06:54:00
Comments: No new power lines above ground in our community. Fire hazard, environmental damage, emf/health issues and property value negative impacting.

---

264. Name: Deborah Maddox Rees on 2019-04-17 13:32:24
Comments: This is too close to my house/our community, and Too Dangerous. Explore underground options further!!!!!

---

265. Name: Timothy Salazar on 2019-04-17 14:55:37
Comments:

---

266. Name: Kent Carruthers on 2019-04-19 04:43:10
Comments:

Appendix C
SDG&E's Magnetic Field Management Plan

Detailed Magnetic Field Management Plan:

TL 6975 San Marcos to Escondido Line

Project Engineer: **Eric Johnson**
Project Designer: **Lerma Diaz**

Work Order No.: **WO: 2986471**
In-Service Date: **October, 2020**

Power & Distribution Lines: **TL 6975**

Central File No.: **ELA 140.B.114**

Prepared by: Steve Rehr Date: 7/14/2017

Table of Contents

I. PROPOSED PROJECT SCOPE **2**

II. MAGNETIC FIELD MANAGEMENT DESIGN GUIDELINES **2**

III. MAGNETIC FIELD MANAGEMENT METHODOLOGY **2**

IV. PROJECT DESCRIPTION **3**

V. MAGNETIC FIELD REDUCTION MEASURES CONSIDERED FOR THE PROPOSED PROJECT **5**

TABLE 1: MAGNETIC FIELD REDUCTION MEASURES ADOPTED OR REJECTED 5

VI. MAGNETIC FIELD REDUCTION MEASURES RECOMMENDED FOR THE PROJECT **6**

VII. MAGNETIC FIELD CALCULATION DETAILS **6**

TABLE 2: CALCULATED MAGNETIC FIELD VALUES* 6

APPENDIX – PROPOSED PROJECT SEGMENT MAP **7**

I. Proposed Project Scope

The purpose of the proposed TL 6975 San Marcos to Escondido Line project ("Proposed Project") includes the rebuild, new build, and reconductoring of approximately 12 miles of 69 kilovolt ("kV") overhead electric power line[1] from the existing San Marcos Substation to the existing Escondido Substation. In addition to improving the reliability to the area by adding a third line into San Marcos Substation, the Proposed Project would also mitigate identified North American Electric Reliability Corporation ("NERC") thermal/voltage violations and the ongoing 69 kV power congestion on the corridor between Escondido and San Marcos Substations.

II. Magnetic Field Management Design Guidelines

The California Public Utilities Commission ("CPUC") requires SDG&E to apply its *EMF*[2] *Design Guidelines for Electrical Facilities* ("Guidelines") to all new and upgraded electric power and transmission projects to reduce public exposure to magnetic fields. SDG&E filed its Guidelines with the CPUC in accordance with CPUC Decision 93-11-013 and updated them in accordance with the 2006 CPUC Decision 06-01-042.

Consistent with SDG&E's Guidelines and with the CPUC order, magnetic fields and possible magnetic field management measures were evaluated along the power line locations associated with the proposed Project. The results of this evaluation are contained in this Detailed Magnetic Field Management Plan ("FMP").

This FMP deals solely with magnetic fields. Moreover, reducing the magnetic field strength is but one of many factors to be considered in planning and designing a transmission system, along with other issues such as safety, environmental concerns, reliability, insulation and electrical clearance requirements, aesthetics, cost, operations and maintenance.

The scope of magnetic field analysis for this FMP does not include the distribution lines, per SDG&E's Guidelines, which state, "For distribution facilities, utilities would apply no-cost and low-cost measures by integrating reduction measures into construction and design standards, rather than evaluating no-cost and low-cost measures for each project." Thus, for purposes of this FMP, the term "Project" includes the 69 kV wood-to-steel pole conversions poles, existing lattice towers and portions exiting/entering both substations.

III. Magnetic Field Management Methodology

In Decision 06-01-042, the CPUC noted that "Utility modeling methodology is intended to compare differences between alternative EMF mitigation measures and not determine actual EMF amounts."[3] The CPUC also noted that "modeling indicates relative differences in magnetic field reductions between different transmission line construction methods, but does not measure actual environmental magnetic fields."[4]

---

[1] In accordance with CPUC General Order 131-D, the term "power line" is used in this document in reference to TL 680C, TL 6975, TL 6908, TL 6934 and TL 689, all 69 kV lines. The term "transmission," when used, refers to internal SDG&E operating departments, internal SDG&E standards and/or other guidelines, and is not intended to suggest that TL 680C, TL 6975, TL 6908, TL 6934 or TL 689 are designed for immediate or eventual operation at 200 kV or above.

[2] EMF refers to electric and magnetic fields.

[3] CPUC Decision D.06-01-042, Finding of Fact 14, p. 20.

[4] Ibid, p.11.

In accordance with its Guidelines, SDG&E will take the following measures for the proposed Project:

- Apply its EMF Guidelines to the proposed Project design.
- Identify and implement appropriate "no-cost" measures, i.e., those that will not increase overall project costs but will reduce the magnetic field levels.
- Identify and implement appropriate "low-cost" measures, i.e., those measures costing in the range of 4% of the total budgeted project cost that will reduce the magnetic field levels by 15% or more at the edge of the right-of-way (ROW).
- When a sufficiency of "low-cost" measures is available to reduce magnetic field levels, such that it is difficult to stay within the 4% cost guideline, apply these "low-cost" measures by priority of adjacent land uses.

The 15% minimum reduction required for low-cost measures is in addition to any field reduction due to "no-cost" measures. It is not cumulative. Since the Proposed Project requires permitting under General Order 131-D, a Detailed FMP will be used.

This FMP consists of a project description, a checklist table showing evaluation of magnetic field reduction measures adopted or rejected per power line, and a summary with recommendations.

IV. Project Description

For the Proposed Project Description below, Segments 1 through 3 are identified in the *Appendix – Proposed Project Segment Map*.

Segment 1 - The first segment of the proposed new power line circuit will consist of rebuilding approximately 1.8 miles of an existing 69 kV circuit (TL 680C) from a single circuit structure line into a double circuit structure line supporting both the existing (TL 680C) and the proposed TL 6975. All wood structures will be replaced with steel poles; all porcelain insulators will be replaced with polymer and TL 680C will be reconductored with 636 ACSR/AW and TL 6975 will have 636 ACSS/AW. The line will be rebuilt from San Marcos substation, along San Marcos Blvd. and Palomar Airport Road until it reaches the existing 150-foot-wide SDG&E corridor (easement) near pole Z114455. At that location, TL 680C will continue its existing alignment north within the SDG&E corridor and TL 6975 will split off to the south on its own new 69 kV single circuit structures toward Meadowlark Junction. Land uses adjacent to the Proposed Project in Segment 1 include schools, residential, commercial and industrial.

For modeling purposes, Segment 1 was broken into 2 sections, 1A and 1B. Of the approximate 39 poles, 28 will be direct-bury and 11 will be engineered foundation poles. Section 1A models the shorter direct-bury poles, while section 1B models the much taller engineered foundation poles.

Segment 2 - A new segment of single circuit 69 kV overhead power line will be constructed on new steel poles in the existing SDG&E transmission corridor. The new power line segment will be approximately 2.8 miles long, starting near pole Z114455 and traveling south to the existing Meadowlark Junction, located adjacent to the existing TL 13811/13825 transmission lines. The new single circuit 69 kV steel poles will be constructed within the SDG&E easement approximately 50 feet east of centerline of the existing structures. All the new steel poles will have graded roads and access/maintenance pads built to them in order to facilitate construction and provide long term maintenance access. Near Meadowlark Junction, the line will transition to existing steel lattice towers. Land uses adjacent to the Proposed Project in Segment 2 include residential, commercial and industrial.

Segment 3 – From Meadowlark Junction to the Escondido substation, there is a segment of overhead conductor on existing lattice towers on the south side of the right-of-way that is currently de-energized. In the right-of-way to the north of these lattice towers is another set of lattice towers with 230 kV transmission circuits. For the Proposed Project, a reconductor is required of the de-energized segment that is on north side of the existing lattice towers, approximately 7.4 miles long. The existing lattice tower and steel pole line contains conductor, hardware and insulators on both sides of the double circuit structures. For this project the 250 MCM copper conductor and porcelain insulators on the north side of the towers will be removed and replaced with polymer insulators and new 636 ACSS/AW conductor. The reconductor will be between poles Z101768 and Z414934. Land uses adjacent to the Proposed Project in Segment 3 include residential, undeveloped land and open space.

Segment 4 - From pole Z414934 to the Escondido substation, the existing 900 ACSS/AW conductor on the west side of the existing steel poles will remain in place. This line of steel poles beginning at Z414934 is located on the east side of the right-of-way at the south end of Segment 4, then crosses under the 230 kV transmission circuits located on a line of lattice towers at Andreasen Drive to continue on the west side of the right-of-way. At Escondido substation, existing overhead conductor will be transferred from the 138 kV rack to an existing 69 kV bay position for the new TL 6975. Three existing 69 kV circuits will be transferred to different bay positions in order to accommodate this new circuit and avoid transmission line crossings. The last overhead spans (drop spans) of existing power lines TL 6908, TL 6934 and TL 689 will be relocated to available bay positions. New steel poles and replacement guys and anchors will be required to accomplish these relocations. Land uses adjacent to the Proposed Project in Segment 4 are mostly commercial and industrial.

V. Magnetic Field Reduction Measures Considered for the Proposed Project

Per Table 3-1 of SDG&E's Guidelines, all portions of power lines within scope of the Proposed Project were reviewed for suitable application of magnetic field reduction measures, as listed in *Table 1* below.

Table 1: Magnetic Field Reduction Measures Adopted or Rejected

Calculated values are for design comparison only and not meant to predict actual magnetic field levels.

Segment(s)	Location (Street, Area)	Adjacent Land Use	Reduction Measure Considered	Measure Adopted? (Yes/No)	Estimated Cost to Adopt
1A & 1B	TL 6975	Schools, Residential, Commercial and Industrial	**Increase Structure Height**	Yes	No-Cost
	The proposed project design would increase pole heights compared with the existing pole heights. Calculations (see Section VII) show that this results in magnetic field reduction of 52% or more at each edge of right-of-way. This option was adopted as a no-cost reduction measure.				
1, 2, 3, & 4	TL 6975	Residential Commercial and Industrial, Undeveloped	**Phase Reconfiguration**	No	No-Cost
	Phasing for TL 6975 is already at optimal order. Calculations (see Section VII) show that changing the phase order would only increase magnetic field values at the edge of right-of-way. This option was rejected as a no-cost reduction measure.				
1A	TL 6975	Schools, Residential, Commercial and Industrial	**Increase Structure Height**	Yes	Low-Cost
	Calculations (see Section VII) show that increasing heights of the proposed direct-bury poles by an additional 5 feet above design height would reduce magnetic fields by more than 15% at each edge of right-of-way. These new pole heights would be more consistent with that of the design heights of the engineered steel poles (section 1B). This option was adopted as a low-cost reduction measure.				
1B	TL 6975	Schools, Residential, Commercial and Industrial	**Increase Structure Height**	No	Low-Cost
	As noted above, calculations (see Section VII) show that magnetic fields would be reduced by 52% or more at each edge of right-of-way due to the proposed project design. Additionally, the direct-bury poles in Segment 1A would be increased in height as a low-cost option, making them more consistent in height with, but still shorter than, the engineered steel poles in Segment 1B. As substantial reduction has already been achieved through no-cost and low-cost measures, and the design heights are, on average, several feet higher than the existing poles, the option of seeking additional reduction through increased height was rejected.				
2	TL 6975	Residential, Commercial and Industrial, Undeveloped	**Increase Structure Height**	No	Low-Cost
	Calculations using an increased height of 25 feet yielded magnetic field reduction of 18% only at the east edge of the right-of-way (see section VII), with no change at the west edge. However, the costs associated with the taller engineered steel poles, foundations, pad and foundation preparation, and additional engineering throughout the segment would be far in excess of the 4% cost guideline for low-cost reduction measures. This option was rejected.				
3 & 4	TL 6975	Residential, Commercial and Industrial, Undeveloped	**Increase Structure Height**	No	Low-Cost
	Increasing the height of existing lattice towers and steel poles would not be a low-cost reduction measure and was rejected as an option.				
3 & 4	TL 6975	Residential, Commercial and Industrial, Undeveloped	**Locate power lines closer to center of the utility corridor**	No	Low-Cost
	The proposed new TL 6975 would be placed on existing lattice towers and steel poles. Re-locating existing lattice towers and steel poles closer to the center of the right-of-way would not be a low-cost reduction measure and was rejected as an option.				

VI. Magnetic Field Reduction Measures Recommended for the Project

No-cost reduction measures recommended

For segment 1, sections A and B, the proposed heights of the new steel poles are greater than those of the existing poles. The height increases will raise conductor height, which indeed is a no-cost magnetic field reduction measure and is recommended for the Proposed Project.

Low-cost reduction measures recommended

For segment 1, section A, increasing pole height an additional 5 feet above design height is recommended for the Proposed Project, as it would reduce magnetic fields by more than 16% at each edge of right-of-way.

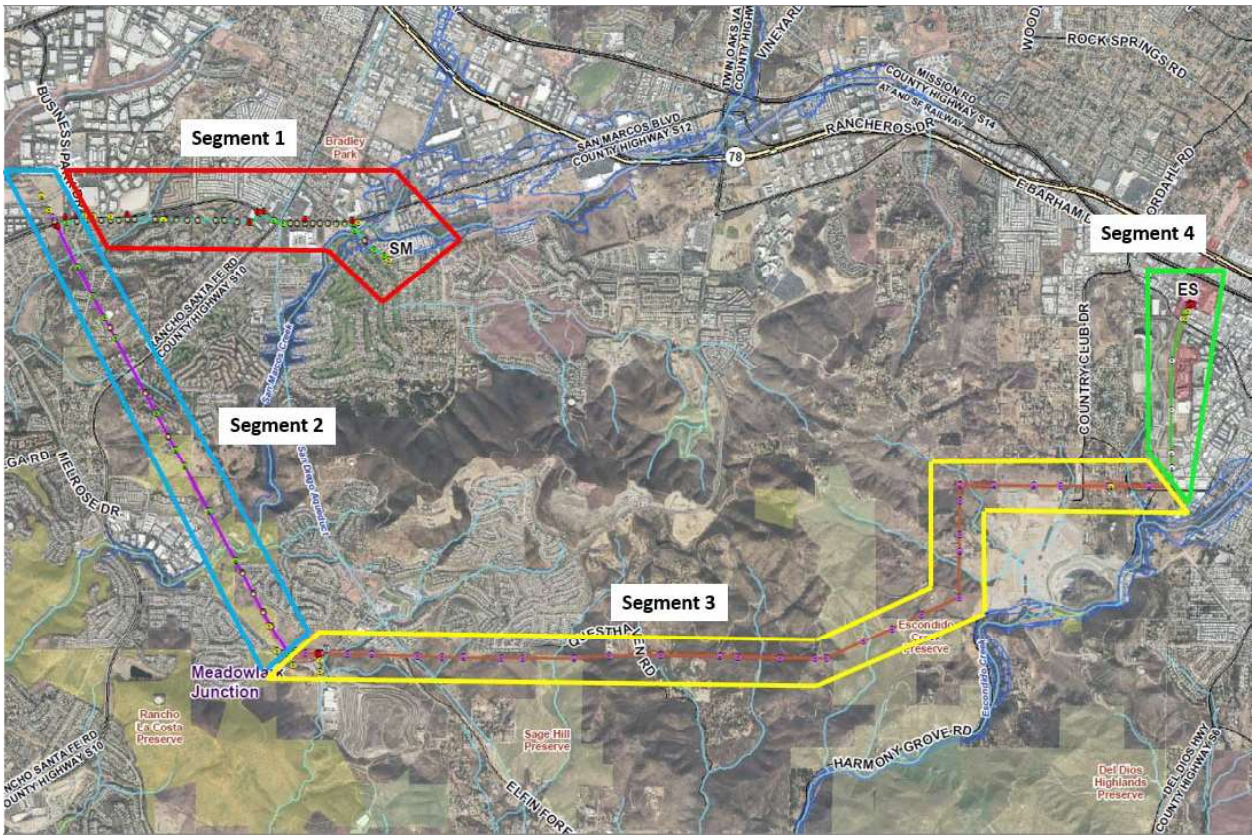
VII. Magnetic Field Calculation Details

Table 2: Calculated Magnetic Field Values*

Segment 1					
Section 1 A	**Current**	**Proposed**	**Raised 5 ft.**	**Proposed**	**Raised 5 ft.**
	mG			**+/- Δ**	
North ROW	14.64	6.09	5.13	-58%	-16%
South ROW	14.54	6.62	5.55	-54%	-16%
Section 1 B	**Current**	**Proposed**	**Raised 5 ft.**	**Proposed**	**Raised 5 ft.**
	mG			**+/- Δ**	
North ROW	8.19	3.94	3.43	-52%	-12%
South ROW	8.23	3.67	2.99	-55%	-12%
Segment 2					
Section 1	**Current**	**Proposed**	**Raised 25 ft.**	**Proposed**	**Raised 25 ft.**
	mG			**+/- Δ**	
East ROW	6.63	12.17	9.95	83%	-18%
West ROW	27.24	26.87	26.83	-1%	0%
Segment 3					
Section 1	**Current**	**Proposed**	**Raised 10 ft.**	**Proposed**	**Raised 10 ft.**
	mG			**+/- Δ**	
North ROW	97.81	97.82	87.99	0%	-10%
South ROW	83.34	85.89	78.10	3%	-9%
Segment 4					
Section 1	**Current**	**Proposed**	**Raised 10 ft.**	**Proposed**	**Raised 10 ft.**
	mG			**+/- Δ**	
East ROW	-	5.07	4.80	-	-5%
West ROW	-	4.67	4.44	-	-5%

* Calculated values are for design comparison only and not meant to predict actual magnetic field levels.

Appendix – Proposed Project Segment Map



Appendix D
SDG&E's Construction Fire Prevention Plan

TL6975
Construction Fire Prevention Plan

(04/06/17)

Table of Contents

Contents

1. CONSTRUCTION FIRE PREVENTION PLAN DEFINITIONS....4
2 PROJECT DESCRIPTION....7
3. PROJECT FIRE RISKS AND MITIGATION MEASURES....8
4. MAJOR OPERATION WORK SITES (MOW)....8
5. OTHER PROJECT TOOLS & EQUIPMENT REQUIREMENTS....8
6. SPECIFIC REQUIREMENTS....9
7. RED FLAG WARNINGS (RFW) AND OTHER CRITICAL FIRE DECLARATIONS....9
8. TRAINING REQUIREMENTS FOR SDG&E & CONTRACT PERSONNEL....9
9. TAILBOARDS, INSPECTIONS, REVIEW & COMPLIANCE....10
10. EMERGENCY RESPONSE....10
11. REFERENCES:....10
12. ATTACHMENTS....10
Attachment 1: Fire Prevention Matrix....12
Attachment 2: Fire Threat Zone....13

DRAFT

1. CONSTRUCTION FIRE PREVENTION PLAN DEFINITIONS

1. **ESP 113.1 SDG&E Wildland Fire Prevention & Fire Safety Plan (SDG&E ESP 113.1):** This is an internal San Diego Gas & Electric (SDG&E) standard practice or procedure outlining fire suppression tools and equipment required for its employees and contractors, fire prevention requirements, and fire related training.

2. **Fire Coordinator (FC):** An SDG&E employee who serves as liaison or agency representative to the fire agencies and other emergency services during an emergency and with other fire related activities in non-emergency situations.

3. **Fire Patrol:** Fire patrol(s) are personnel who are assigned the responsibility and are accountable for fire prevention, risk management, early detection of fires, and rapid extinguishment. (The assigned Fire Patrol is documented daily).

   - A "***designated***" Fire Patrol is a member of a work crew assigned responsibility and accountability for fire prevention, risk mitigation, early detection of fires, and rapid extinguishment should a fire occur. This can be accomplished *co-laterally* with other work duties, but the designated Fire Patrol must be ready to respond to a fire with appropriate fire equipment at all times during construction.

   - A "***dedicated***" Fire Patrol is a person(s) who's sole responsibility are the duties associated with fire prevention and fire safety. The Fire Patrol will be assigned responsibility and accountability for fire prevention, risk mitigation, early detection of fires, and rapid extinguishment should a fire occur. Dedicated Fire Patrols are typically assigned to a fire engine or water tender, but this equipment is not required.

4. **Fire Tools**: References to "fire tools" pertains to firefighting tools which include; shovel, Pulaski, and a five gallon backpack pump. These tools are commonly required on project vehicles and work sites. Additional requirements may be identified depending on the construction activity being performed, the location and/or current conditions.

5. **Fire Threat Zone (FTZ):** An area within the SDG&E service territory which identifies the wildland fire threat on a scale of low to extreme. This is a rating based on a combination of potential fire behavior (wildland fuel) and expected fire frequency. SDG&E has established certain wildland fire prevention practices for construction within the designated FTZ.

6. **At Risk Activity:** Project activities that present a risk of igniting a wildfire.

7. **Emergency Work:** Work required to resolve situations that present immediate threats to human life or property regardless of ownership (36 CFR 251.50b)

DRAFT

8. **Fire Potential Index (FPI):** This is a comprehensive assessment of fire risk, used as a tool for making operation and maintenance decisions related to fire prevention. The tool converts environmental, statistical, and scientific data into an easily understood forecast of short-term fire threats. Both a daily and a seven day forecast index are generated for an assortment of geographic areas within the service territory. The 7-day forecast is used for planning purposes, while the daily FPI is used to determine the operating condition for work activities each day. There are three operating conditions determined by the FPI (Normal, Elevated, or Extreme):

   Normal Operating Condition: It is considered "Normal" operating condition when the FPI is in any shade of green (*very low, low, or moderate)*. All activities can take place in the wildland areas of the service territory without additional fire risk management, as long as baseline fire equipment is available as prescribed in this plan. Note, the baseline fire equipment requirements must meet or exceed all local, state, and federal requirements for working in the wildland areas.

   Elevated Operating Condition: It is considered "Elevated" operating level when the FPI is either yellow or orange (high or very high). Certain "at risk" activities (as identified in Attachment 1: Fire Prevention Matrix) will require additional risk management to perform those work activities.

   Extreme Operating Condition: It is considered "Extreme" operating level when the FPI is red (extreme). No "at risk" activities should be conducted except for those activities which if not performed may present a greater risk of ignition. Consultation with the Fire Coordinator is required to make the determination to perform the activity and identify additional fire prevention measures to be implemented to reduce risk.

9. **Red Flag Warning (RFW):** A Red Flag Warning is issued for a stated period of time by the National Weather Service (NWS) using pre-determined criteria to identify critical fire danger in a particular geographic area.

10. **Major Operation Worksite (MOW):** These work sites are typically large in size and include, but are not limited to construction yards, wire stringing sites, substations and any other area where construction work will be concentrated. The criteria for identifying a MOW is based on the number of people, type of work, and duration the site will be occupied.

11. **Construction Fire Prevention Plan:** Commonly referred to as the Fire Plan**.** The Fire Plan is developed and implemented by SDG&E to provide fire prevention guidance for a specific construction project.

12. **Project:** "Project" may be used interchangeably in place of TL6975 Project.

13. **Hot Work:** Metal cutting, welding, grinding, activities that require open flame and/or have a high a probability of producing sparks. These activities may have different requirements

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depending on land ownership or the fire agency having jurisdiction.

14. **Incidental Landing Areas:** Temporary helicopter landing sites used infrequently requiring minimal maintenance or upkeep.

15. **Field Construction Advisor (FCA) or Contract Administrator (CA):** Serves as the SDG&E Point of Contact (POC) with construction personnel and the project management team. The CA is responsible for overseeing that construction work is performed in compliance with project requirements.

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2. PROJECT DESCRIPTION

The Project includes the following components, broken out by segment:

- Segment 1 Rebuild: Rebuild of approximately 1.8 miles of an existing 69 kV circuit power line near San Marcos Substation.
- Segment 2 New Build: Addition of approximately 2.8 miles of a new single-circuit 69 kV overhead power line to the existing Meadowlark Junction.
- Segment 3 Reconductoring/Re-Energizing: Reconductoring approximately 7.4 miles of a de-energized power line segment to the existing Escondido Substation. Minor work at the existing Escondido Substation to accommodate this new circuit.

Table 1- Fire Jurisdiction & Land Ownership

Ownership	Fire Suppression Responsibility	Non Emergency Contact	Emergency Contact
	Elfin Forest/Harmony Grove Fire Dept	760-744-2186	911
	Escondido Fire Department	760-839-5401	911
	Rancho Santa Fe Fire Protection District	858-756-6001	911

(DPA, Direct Protection Area, SRA, State Responsibility Area; FRA, Federal Responsibility Area; LRA, Local Responsibility Area)

Project Timeframes:

This project's construction phase will take approximately 10 months.

Work activities that are anticipated to take place in the FTZ may include but are not limited to:

- Grading for road maintenance, site/pad contouring and structure foundations
- Hazard reduction; mowers & weed eaters
- Existing wood structure removal
- Excavation for new foundation steel pole/tower placement
- Digging & setting direct bury new steel structures
- Erection of new structures
- Operation of generators, compressors, and other internal combustion engines
- Operation of backhoes, augers, & other rock striking equipment
- Welding, grinding, & cutting of steel
- Working in and around energized lines
- Conductor stringing
- Re-conductoring
- Cable pull operations
- Helicopter operations

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- Trenching
- Construction meetings at staging yards
- Surveys and inspections
- Environmental monitoring and surveys

3. PROJECT FIRE RISKS AND MITIGATION MEASURES

During the construction phase of the Project, SDG&E will implement the fire prevention measures listed in the Project Fire Prevention Matrix (Attachment 1) which describes activities creating fire risks that will occur within the FTZ (Defined in ESP113.1). The Project Fire Prevention Matrix is based on the Fire Risk & Mitigation Matrix (ESP113.1) and may contain additional fire prevention measures based on project specific risks. Activity Risks identified after Project initiation shall be added to the Project Fire Prevention Matrix with appropriate fire prevention measures determined by the Contract Administrator and Fire Coordinator and/or the appropriate fire agency with jurisdictional responsibility.

4. MAJOR OPERATION WORK SITES (MOW)

The following precautions will take place at each designated major operations work area:

- The site will be assessed by the Fire Coordinator for wildland fire threat and/or risk prior to beginning operations associated with that site.
- Additional specialized tools and/or equipment will be identified during the inspection
- Heavy equipment working in a MOW clear of vegetation will **not** be required to have the fire mitigation tools within 50 ft. as long as there is an accessible fire box(s) inside the MOW containing all of the required tools (as determined by the Fire Coordinator)

5. OTHER PROJECT TOOLS & EQUIPMENT REQUIREMENTS

The following equipment may be required to be staged as proximate as possible to on-going Project activities. These items should be strategically placed to afford the best opportunity to help to prevent ignitions and expeditiously extinguish any fire resulting from Project activities. The Fire Coordinator, in consultation with the jurisdictional Fire Agency, will determine additional equipment needs or requirements. These may include, but are not limited to:

1. Wetting down sites, including vegetation, prior to and during construction/grading. This may require some application with a hose and nozzle to get areas sheltered from spray bar operations.

2. Contractor will utilize their company Hot Work Program. The program, at a minimum, will meet NFPA 51B requirements. Where feasible, hot work will be conducted in areas designated by the Fire Coordinator.

3. Designated parking areas for privately owned vehicles will be clearly marked and be clear of vegetation or other combustible materials.

4. Operations involving dispensing and/or storage of gasoline, diesel and other fuels and combustible chemicals will have the appropriate signage, and fire prevention

equipment.

6. SPECIFIC REQUIREMENTS

The Project activities must comply with the following regulations:

- Title 14 of the California Code of Regulations (CCR)
- California Forest Practice Rules, in its entirety for the duration of the Project with particular attention to Chapter 4, Subchapter 4, 5, & 6 Article 8 Fire Protection.
- Public Resource Codes (PRC) Section 4427 - Operation of Fire Causing Equipment
- PRC Section 4431 - Gasoline Powered Saws and Equipment
- PRC Section 4442 - Spark Arrestors
- PRC Section 323.1 - Use of Equipment and Devices Generating Heat, Sparks or Open Flames

7. RED FLAG WARNINGS AND OTHER CRITICAL FIRE DECLARATIONS

When there is a notice of a Red Flag Warning (RFW), the FPI will usually default to "FPI – Extreme." Note that if the FPI does not display extreme for the event, then further direction from the Fire Coordinator will be sought. The RFW will be for a specific geographic area and a specific time period. The project manager, FCA, CA, and construction supervisors will be responsible for insuring they are notified of these events. It is also the responsibility of all construction supervisors to know and communicate the details of a RFW to their crews. At the end of the RFW, confirmation should be obtained from the Fire Coordinator that work can begin again and if any restrictions are imposed on planned work activities.

At times, critical fire danger declarations may be made by any jurisdictional fire department for a specific time period. As soon as these declarations are shared with the Project Manager and CA, they will be communicated to project personnel. Restrictions and fire prevention measures will apply until the declarations are lifted. The jurisdictional fire departments may also direct SDG&E to cease any or all work activities, including helicopter use, in response to ongoing fire incidents.

During periods of FPI - Extreme, work restrictions may be imposed as identified in Attachment 1: Fire Prevention Matrix. Unfinished work, repairs, or vegetation management may be allowed to continue if they pose a greater fire risk if left in their current state. The FCA or CA will consult with the Fire Coordinator in these situations.

8. TRAINING REQUIREMENTS FOR SDG&E & CONTRACT PERSONNEL

Prior to the start of construction activities, it is required that all project construction personnel *(SDG&E & Contractors)* participate in training on Wildland Fire Prevention and Safety *(ref. SDG&E ESP113.1).* This training will be provided as part of the Project's Worker Training Program. Training will include a discussion of:

- Fire prevention procedures
- Fire detection and reporting
- Extinguishment tools and methods
- Overview of the Construction Fire Prevention Plan

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9. TAILBOARDS, INSPECTIONS, REVIEW & COMPLIANCE

Construction supervisors will be responsible for reviewing the contents of the Construction Fire Prevention Plan with construction personnel throughout the duration of the project. Daily safety tailboard session should include an assessment of the day's FPI level and discussion of the fire risk for the day.

The CA (or designee) shall perform periodic inspections of equipment and worksites to verify compliance with this plan. Compliance with the Construction Fire Prevention Plan is mandatory. Monitoring compliance with this Plan is everyone's responsibility. The Project Manager, Contract Administrators and/or Site Foreman will have authority to shut down any operation that presents an inappropriate amount of fire risk or hazard until it can be properly addressed.

Violations of the requirements of this Plan will be addressed immediately. Appropriate consequences for repeated or negligence in respect to this Plan will be forwarded to the appropriate management for action.

All project-related vegetation fires, regardless of size, shall be promptly reported to the fire agency having jurisdiction. ***911*** is the primary notification number for reporting an emergency. The project manager, CA, and Fire Coordinator shall also be notified when it is safe to do so.

10. EMERGENCY RESPONSE

911 is the primary first responder contact number for all incidents. Project personnel will report all fires immediately by dialing 9-1-1. After first responders have been notified and it is safe to do so, reporting parties will notify Fire Coordination [(858) 503-5152] and appropriate project management.

The Project Manager, Field Construction Advisor, Contract Administrator, Fire Coordinator and/or Site Foreman will serve as the point of contact with the fire department in the event of an emergency. They will also manage the prevention, detection, control, and extinguishing of fires started accidentally as a result of construction activity.

Site specific emergency procedures will be reviewed prior to construction beginning each day during the tailgate briefing.

11. REFERENCES:

Electric Standard Practice (ESP) – 113.1
SDG&E Operations & Maintenance Wildland Fire Prevention Plan

California Forest Standard Practice Rules;
http://www.fire.ca.gov/resource_mgt/downloads/2016_ForestPracticeRules-Act.pdf

12. ATTACHMENTS

- **Attachment 1:** Project Fire Prevention Matrix
- **Attachment 2:** FTZ Map

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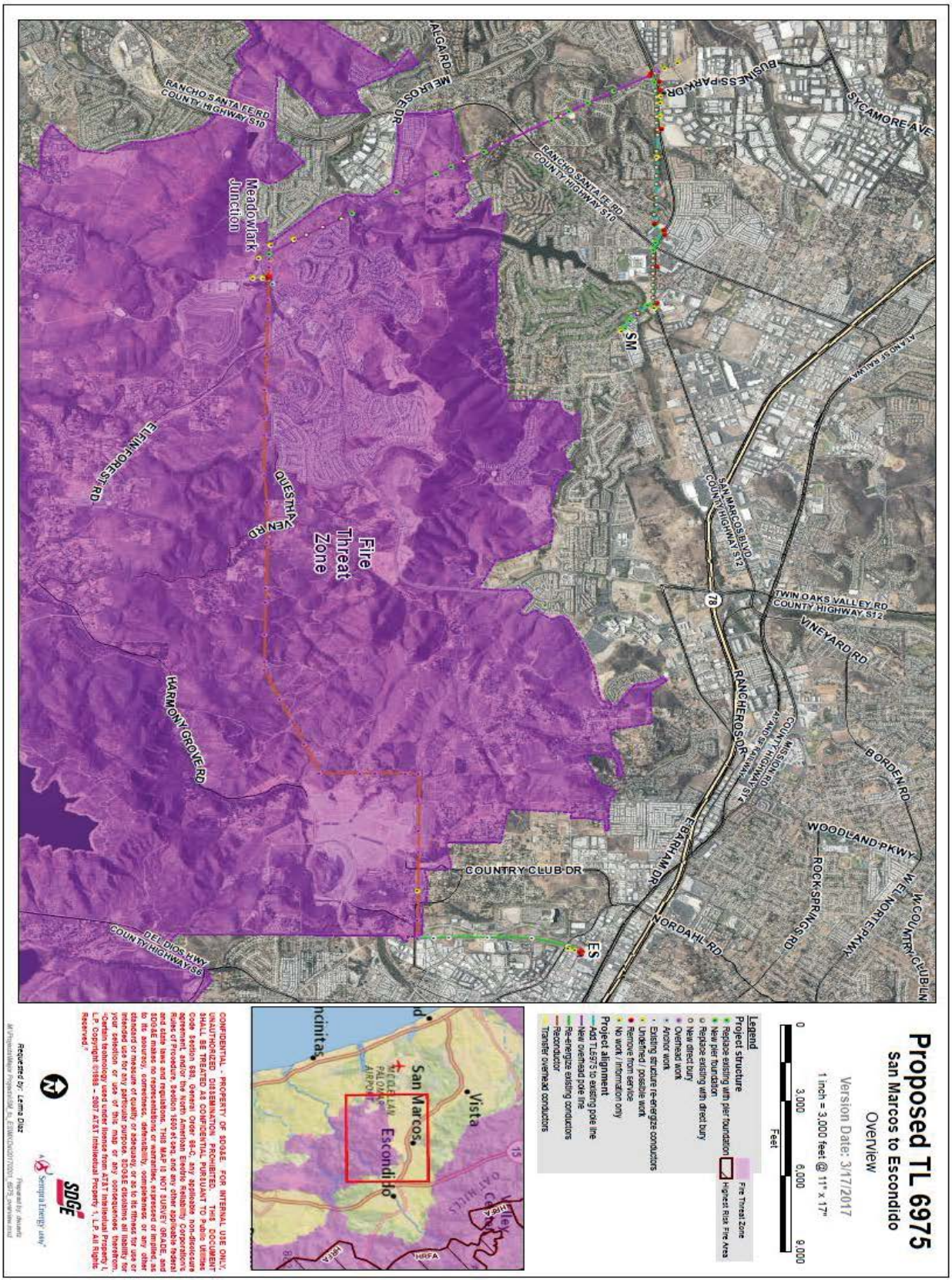
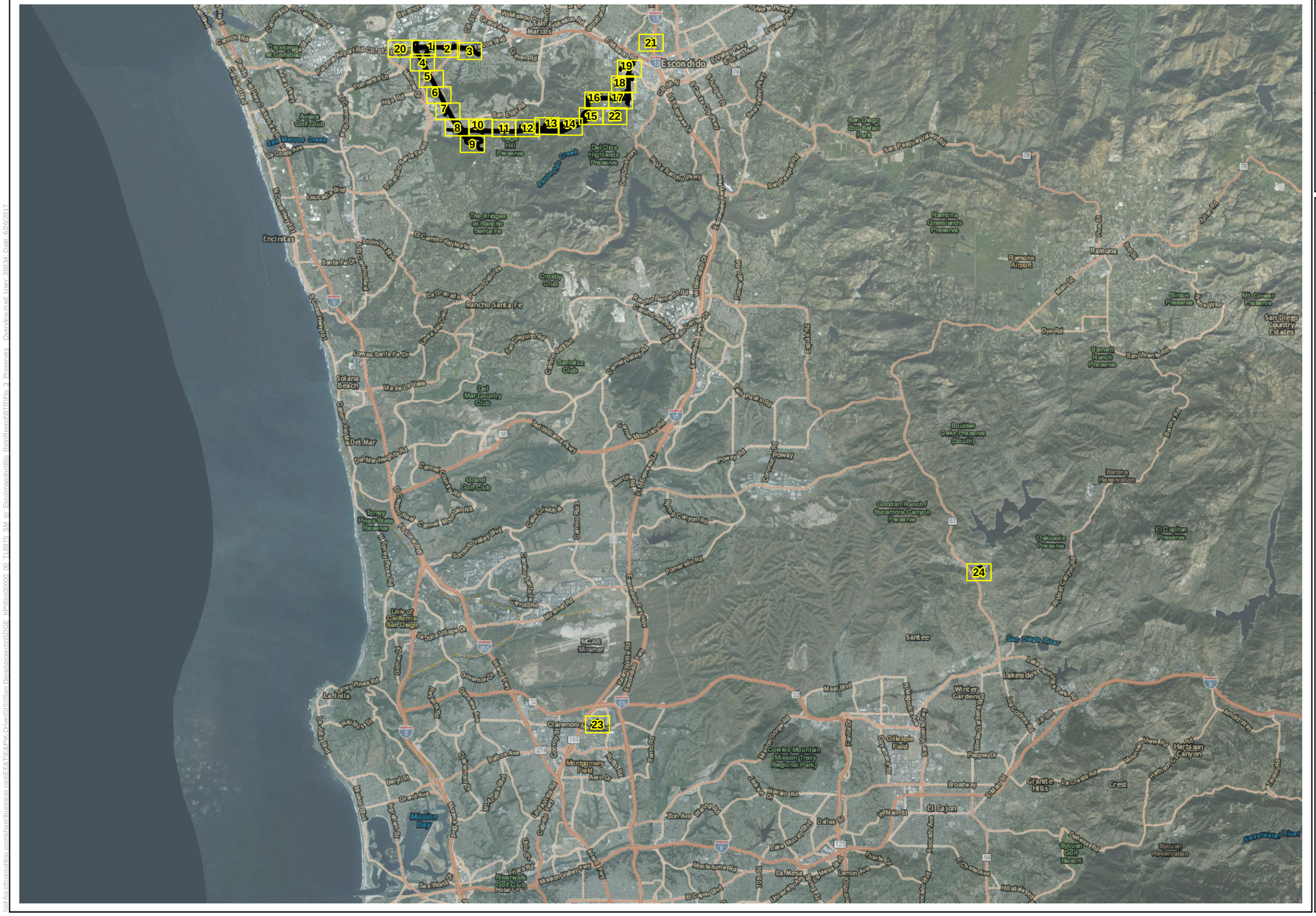
Attachment 1: Fire Prevention Matrix

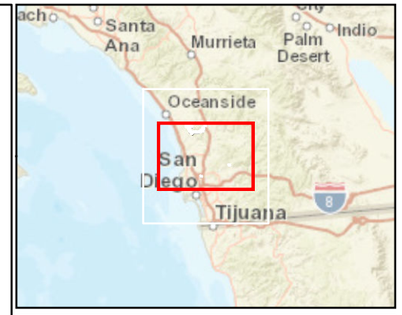
Attachment 2: Fire Threat Zone



Appendix E
Biological Technical Report Mapbooks

Appendix E.1: TL6975 Preserves and Critical Habitat Mapbook





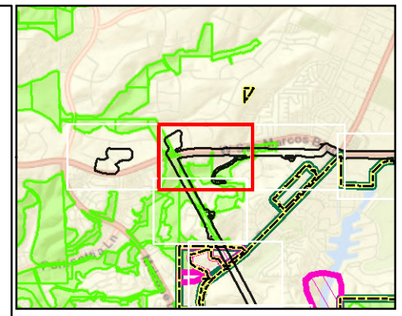
Legend

- Survey Area
- Detail Map Sheets

Source:ICF; KP; SDG&E; ESRI 2017

0 8,000 16,000 Feet
1:190,080

Figure 3
TL6975 Preserves and Critical Habitat
SDG&E Tie-Line 6975 Project



Legend

- Survey Area
- Temporary Impacts
- Permanent Impacts
- Staging Yard
- City Boundary
- Conserved Lands (SANDAG)
- Multiple Habitat Conservation Program (MHCP)

Critical Habitat (USFWS)

- Coastal California gnatcatcher
- Thread-leaved brodiaea

Source:ICF; KP; SDG&E; ESRI 2017

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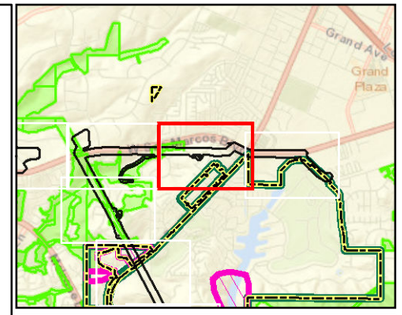
Figure 3 - TL6975 Sheet 1
TL6975 Preserves and Critical Habitat
SDG&E Tie-Line 6975 Project



Legend

- Survey Area
- Temporary Impacts
- Permanent Impacts
- City Boundary
- Conserved Lands (SANDAG)
- Multiple Species Conservation Program (MSCP)
- Multiple Habitat Conservation Program (MHCP)

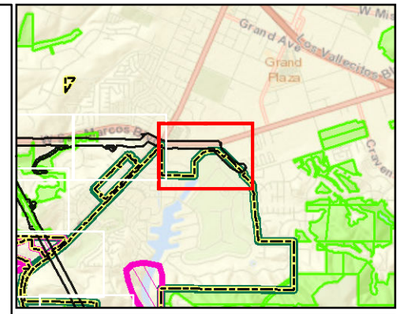
Critical Habitat (USFWS)

- Coastal California gnatcatcher

Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

Figure 3 - TL6975 Sheet 2
TL6975 Preserves and Critical Habitat
SDG&E Tie-Line 6975 Project



Legend

- Survey Area
- Temporary Impacts
- Permanent Impacts
- City Boundary
- Multiple Species Conservation Program (MSCP)
- Multiple Habitat Conservation Program (MHCP)

Critical Habitat (USFWS)

- San Diego fairy shrimp
- Spreading navarretia
- Thread-leaved brodiaea

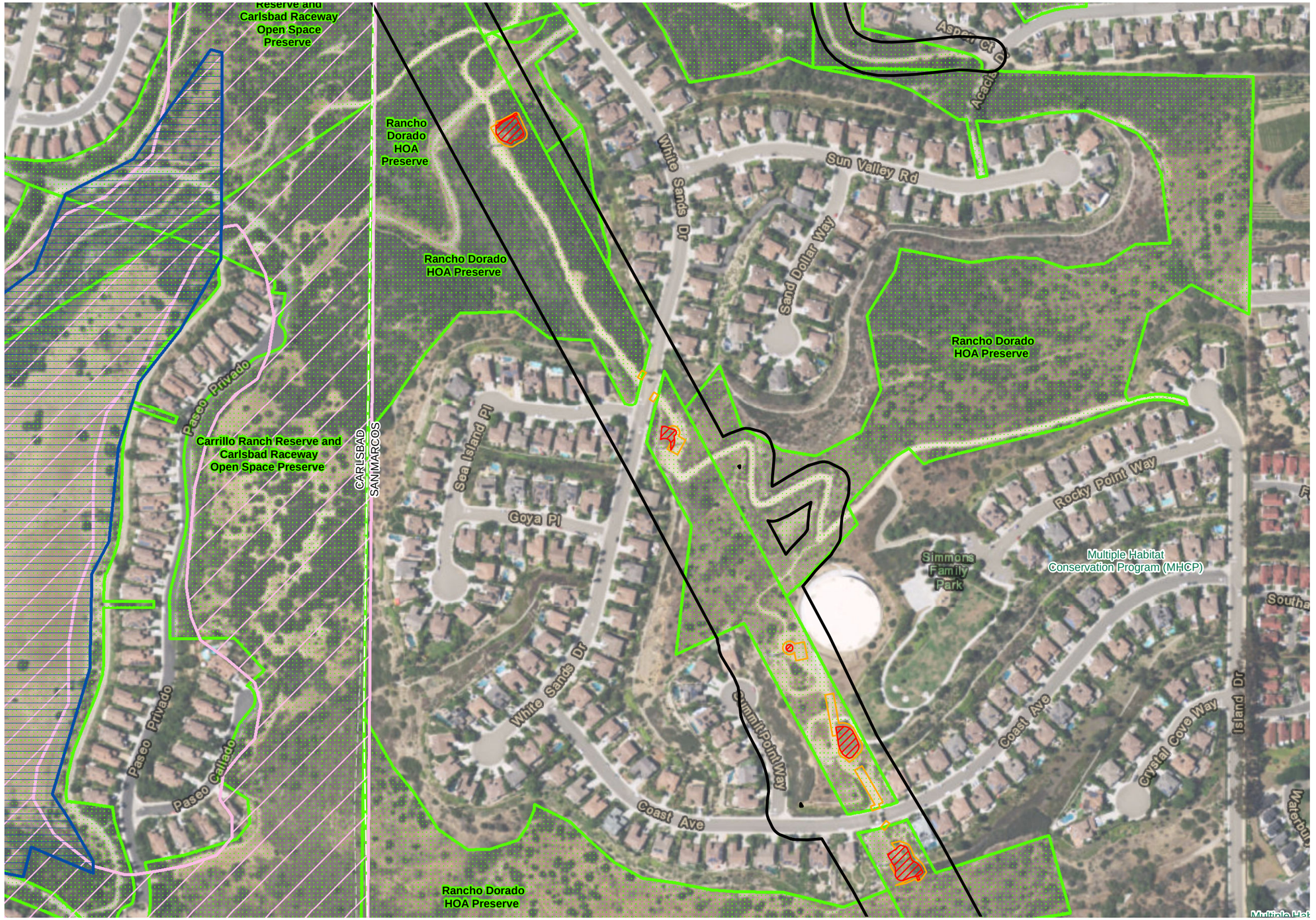
Source:ICF; KP; SDG&E; ESRI 2017

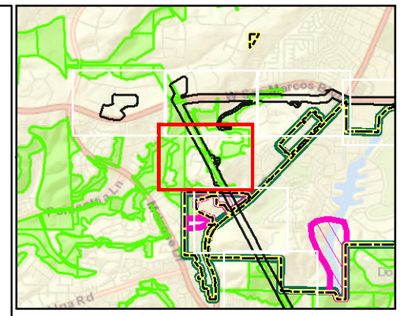
ICF

N

0 150 300
Feet
1:3,600

Figure 3 - TL6975 Sheet 3
TL6975 Preserves and Critical Habitat
SDG&E Tie-Line 6975 Project





Legend

- Survey Area
- Temporary Impacts
- Permanent Impacts
- City Boundary
- Conserved Lands (SANDAG)
- Multiple Habitat Conservation Program (MHCP)

Critical Habitat (USFWS)

- Coastal California gnatcatcher
- Thread-leaved brodiaea

Source:ICF; KP; SDG&E; ESRI 2017

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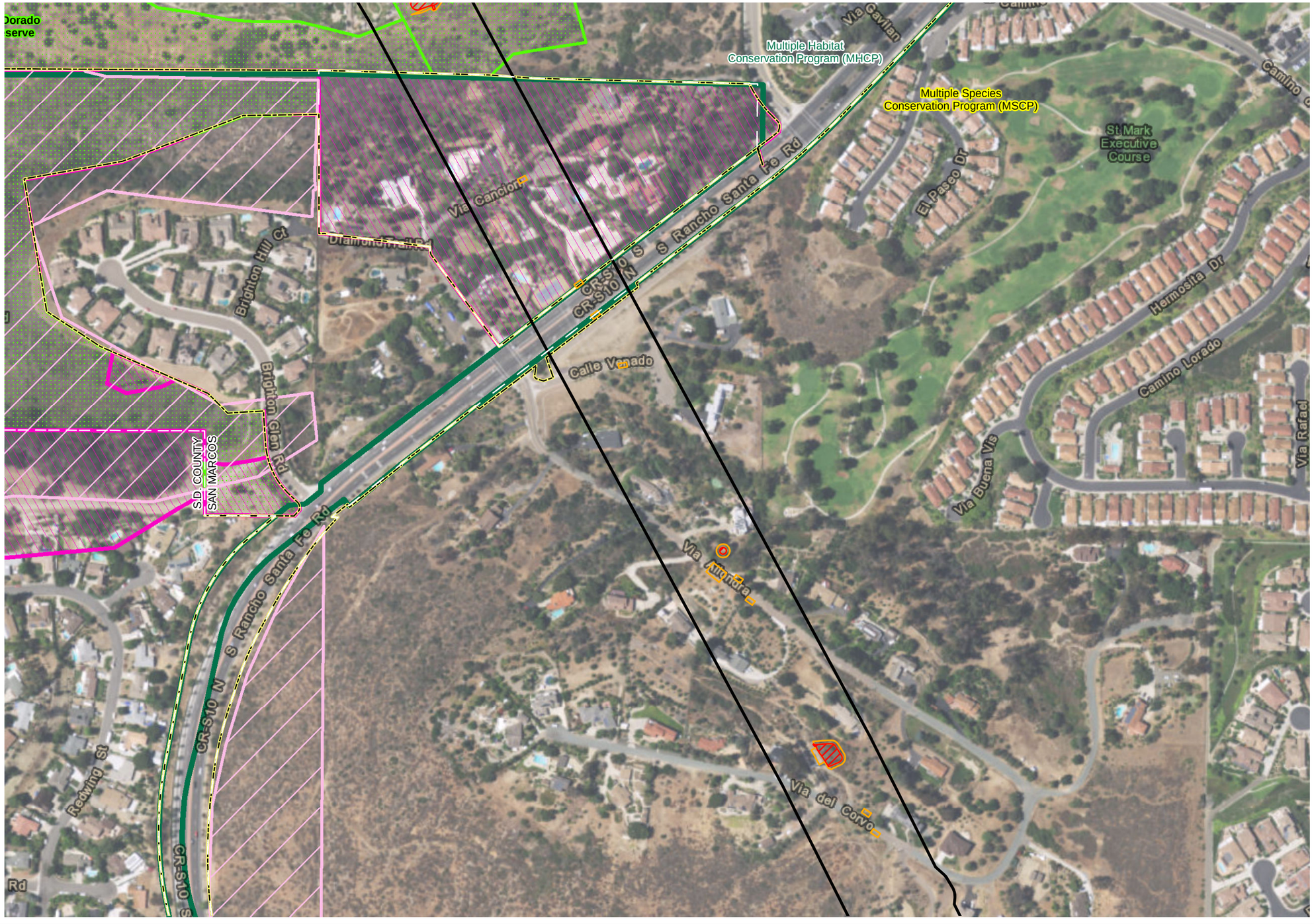
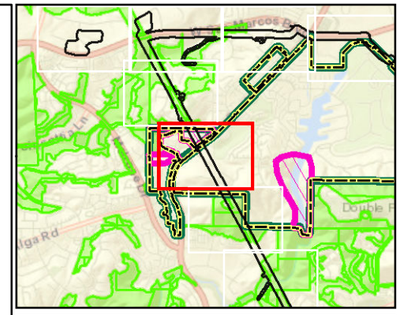
1:3,600

Figure 3 - TL6975 Sheet 4
TL6975 Preserves and Critical Habitat
SDG&E Tie-Line 6975 Project





Legend

- Survey Area
- Temporary Impacts
- Permanent Impacts
- City Boundary
- Conserved Lands (SANDAG)
- Multiple Species Conservation Program (MSCP)
- Pre-Approved Mitigation Area (PAMA)
- Multiple Habitat Conservation Program (MHCP)

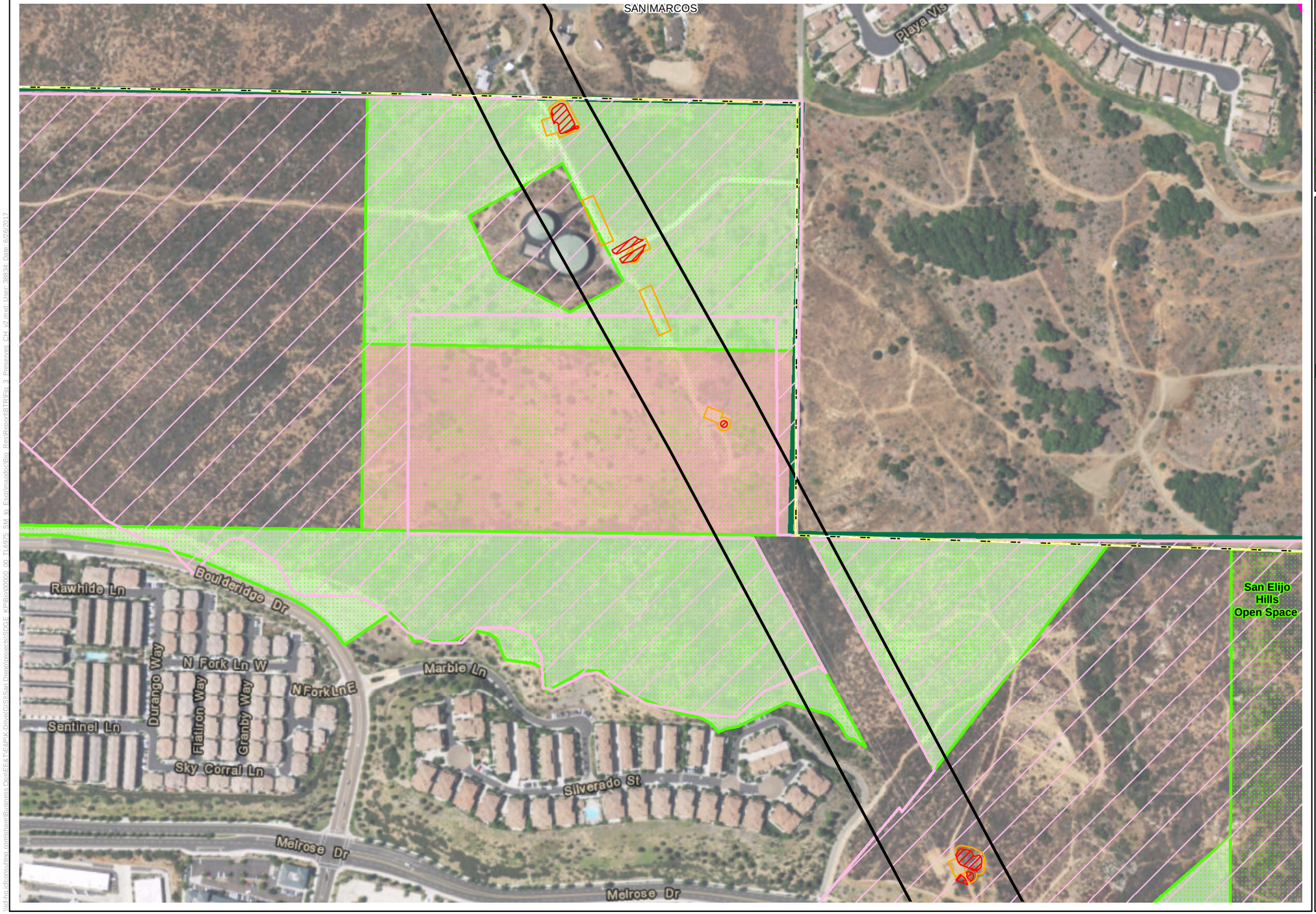
Critical Habitat (USFWS)

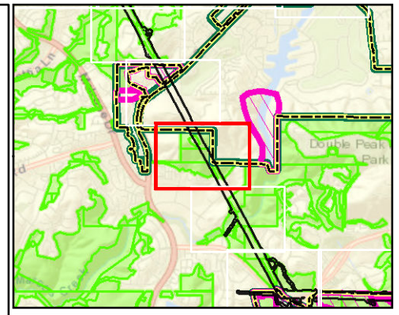
- Coastal California gnatcatcher

Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

Figure 3 - TL6975 Sheet 5
TL6975 Preserves and Critical Habitat
SDG&E Tie-Line 6975 Project





Legend

- Survey Area
- Temporary Impacts
- Permanent Impacts
- City Boundary
- Conserved Lands (SANDAG)
- Multiple Species Conservation Program (MSCP)
- Pre-Approved Mitigation Area (PAMA)
- Multiple Habitat Conservation Program (MHCP)

Critical Habitat (USFWS)

- Coastal California gnatcatcher

Habitat Conservation Area Parcels

- TET Meadowlark
- University Commons

Source:ICF; KP; SDG&E; ESRI 2017

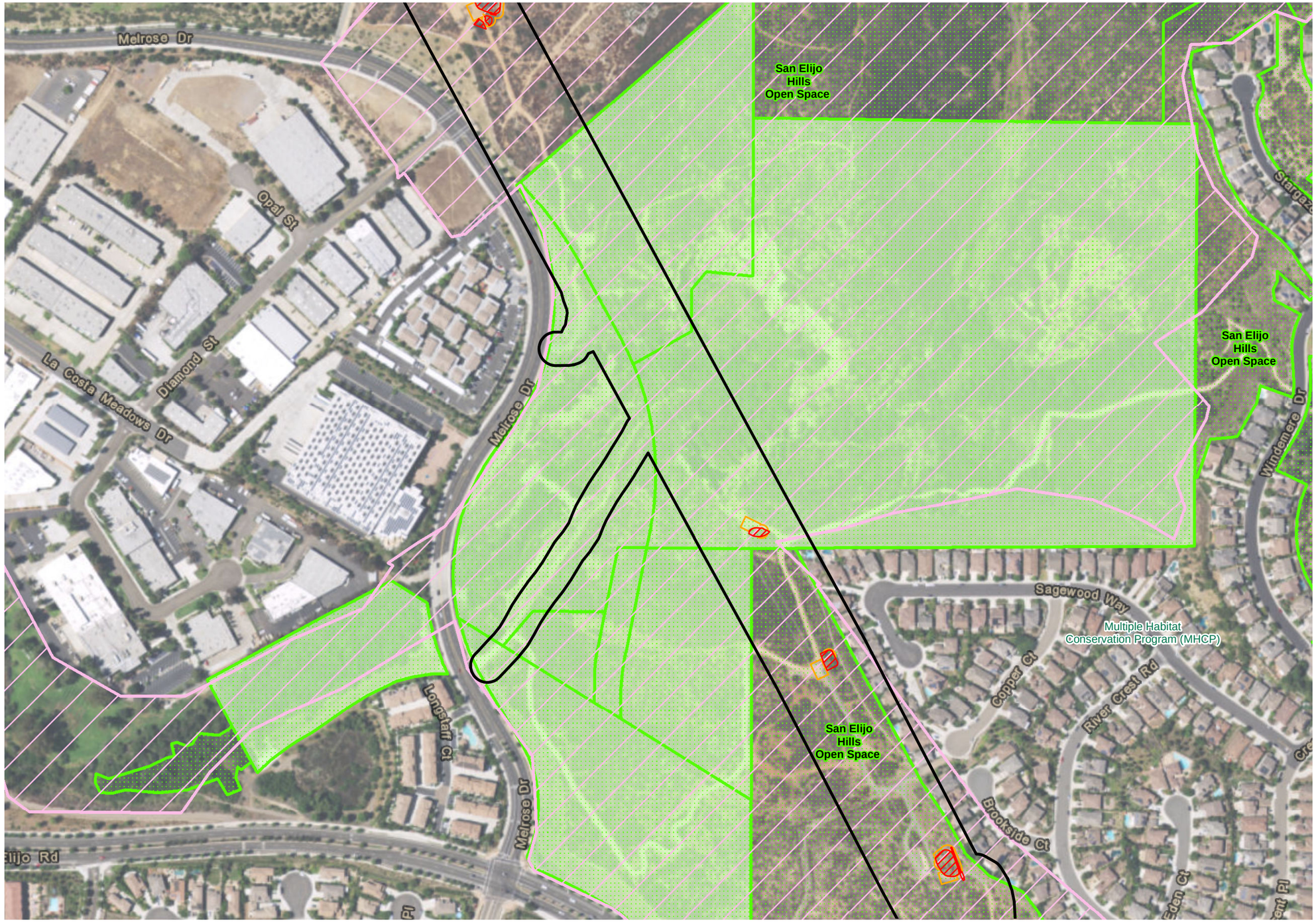
ICF

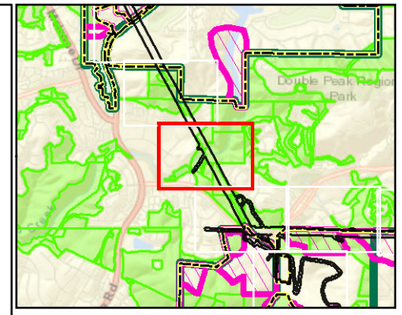
N

0 150 300 Feet

1:3,600

Figure 3 - TL6975 Sheet 6
TL6975 Preserves and Critical Habitat
SDG&E Tie-Line 6975 Project





Legend

- Survey Area
- Temporary Impacts
- Permanent Impacts
- City Boundary
- Conserved Lands (SANDAG)
- Multiple Habitat Conservation Program (MHCP)

Critical Habitat (USFWS)

- Coastal California gnatcatcher

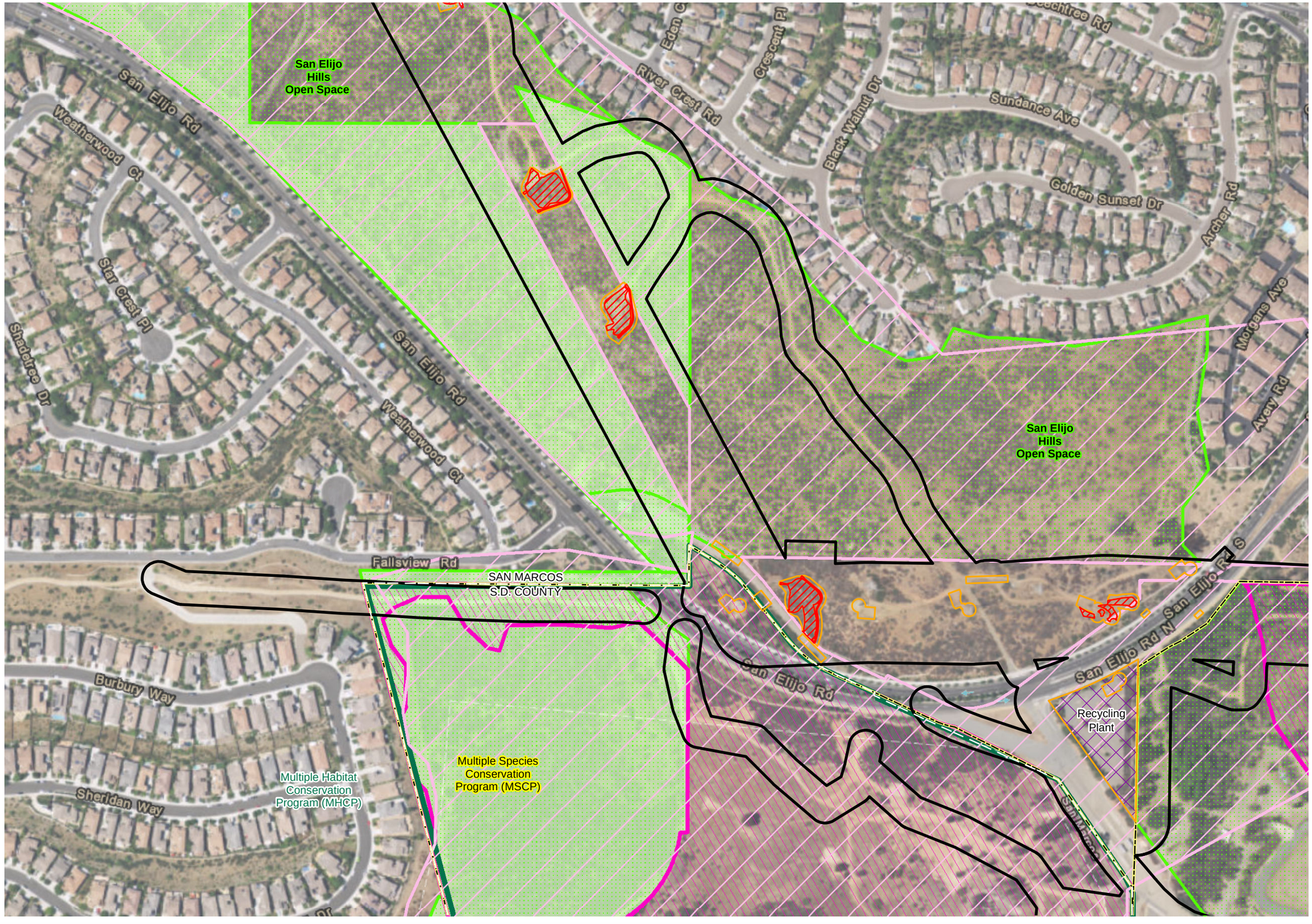
Habitat Conservation Area Parcels

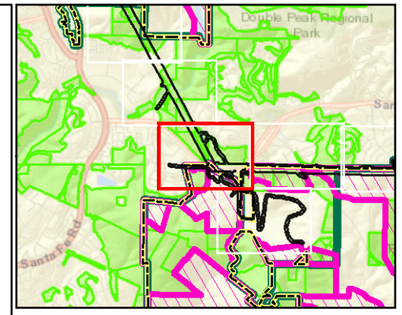
- University Commons

Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

Figure 3 - TL6975 Sheet 7
TL6975 Preserves and Critical Habitat
SDG&E Tie-Line 6975 Project





Legend

- Survey Area
- Temporary Impacts
- Permanent Impacts
- Staging Yard
- City Boundary
- Conserved Lands (SANDAG)
- Multiple Species Conservation Program (MSCP)
- Pre-Approved Mitigation Area (PAMA)
- Multiple Habitat Conservation Program (MHCP)

Critical Habitat (USFWS)

- Coastal California gnatcatcher

Habitat Conservation Area Parcels

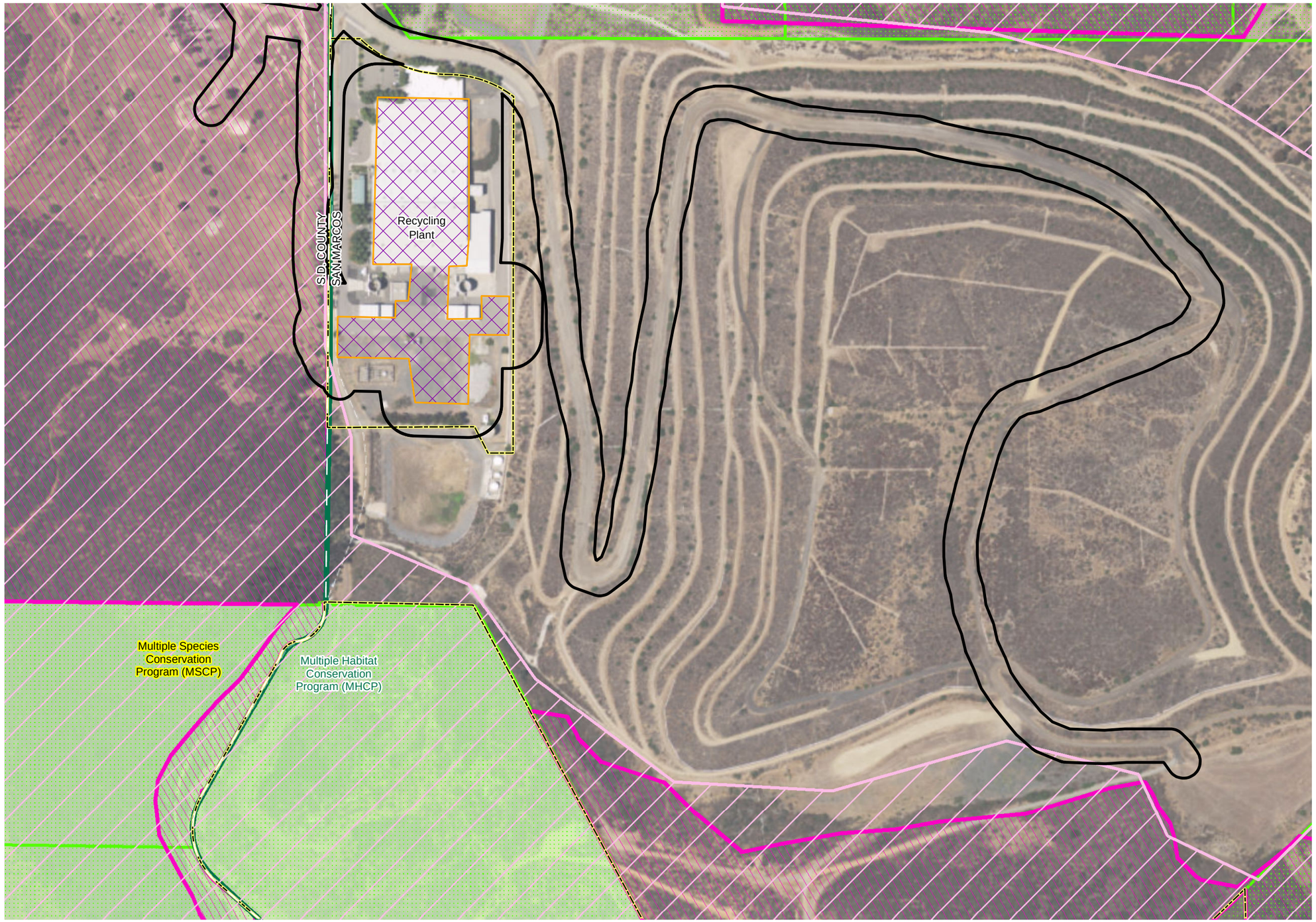
- University Commons

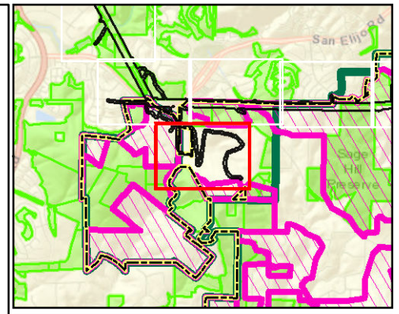
Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

N

Figure 3 - TL6975 Sheet 8
TL6975 Preserves and Critical Habitat
SDG&E Tie-Line 6975 Project





Legend

- Survey Area
- Temporary Impacts
- Staging Yard
- City Boundary
- Conserved Lands (SANDAG)
- Multiple Species Conservation Program (MSCP)
- Pre-Approved Mitigation Area (PAMA)
- Multiple Habitat Conservation Program (MHCP)

Critical Habitat (USFWS)

- Coastal California gnatcatcher

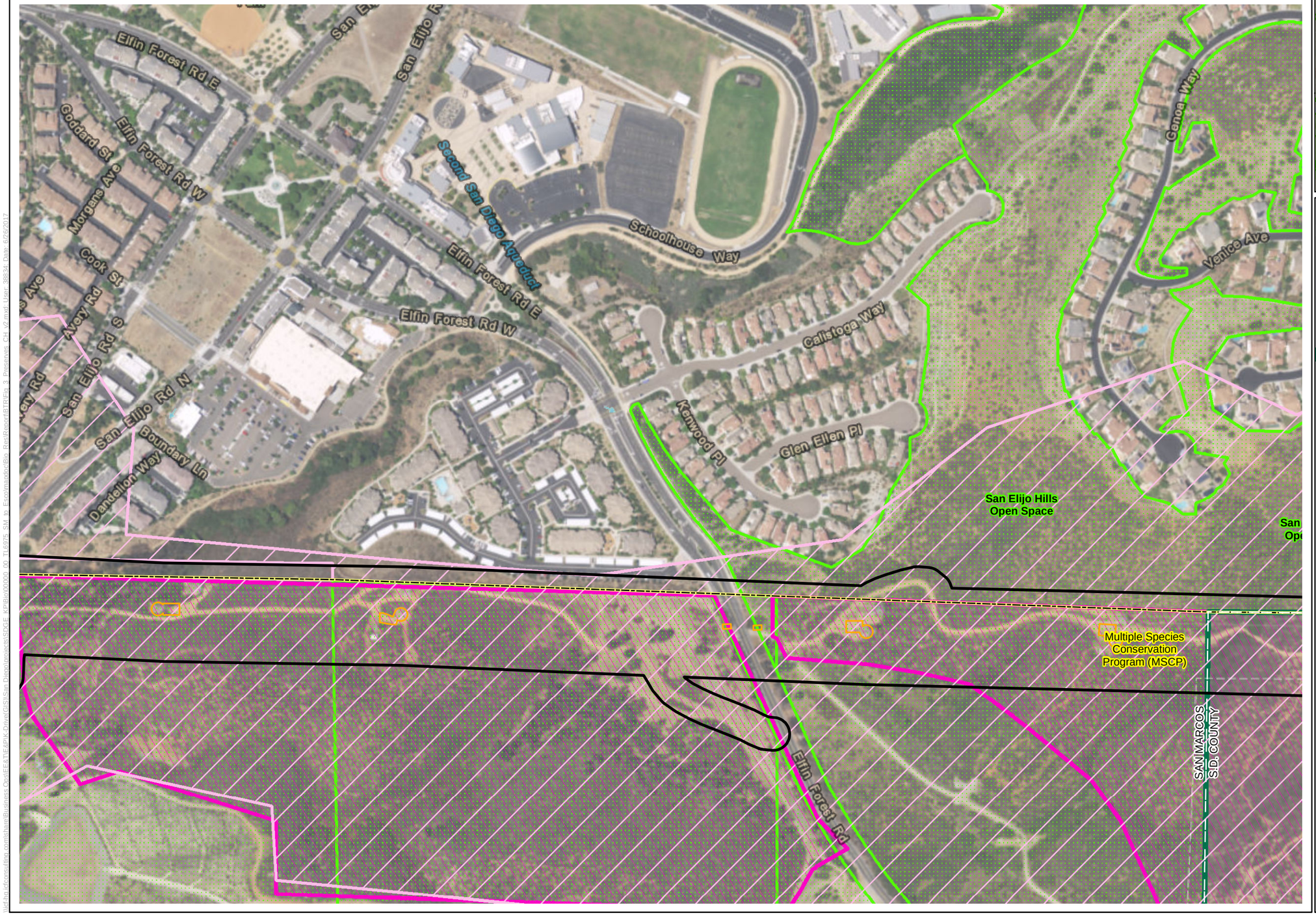
Habitat Conservation Area Parcels

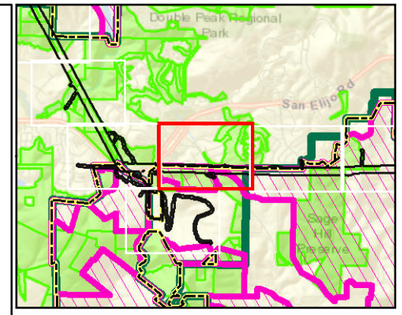
- University Commons

Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

Figure 3 - TL6975 Sheet 9
TL6975 Preserves and Critical Habitat
SDG&E Tie-Line 6975 Project





Legend

- Survey Area
- Temporary Impacts
- City Boundary
- Conserved Lands (SANDAG)
- Multiple Species Conservation Program (MSCP)
- Pre-Approved Mitigation Area (PAMA)
- Multiple Habitat Conservation Program (MHCP)

Critical Habitat (USFWS)

- Coastal California gnatcatcher

Source:ICF; KP; SDG&E; ESRI 2017

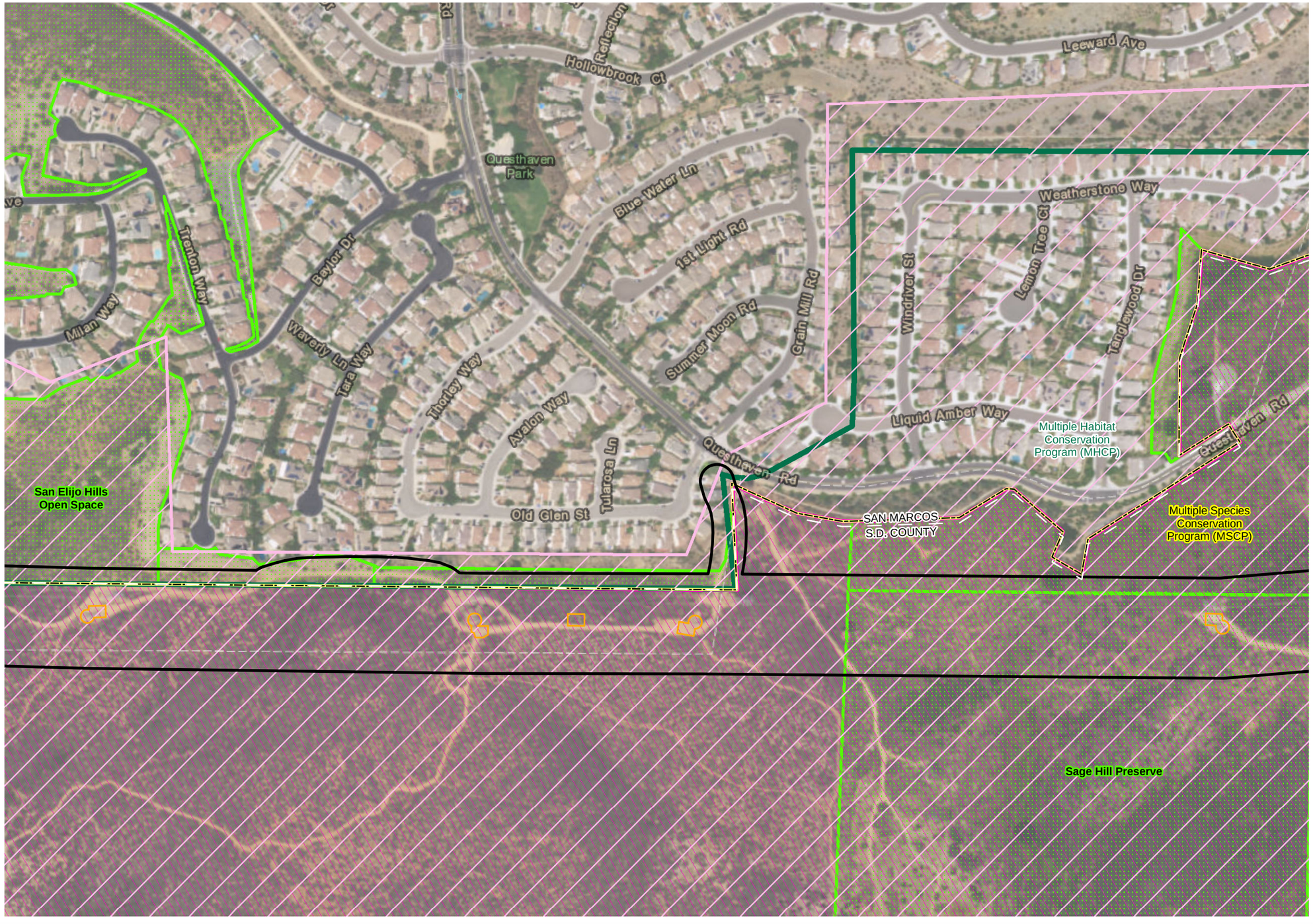
ICF

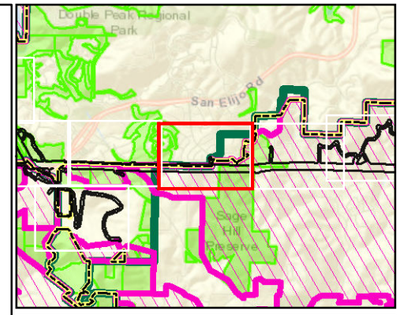
N

0 150 300 Feet

1:3,600

Figure 3 - TL6975 Sheet 10
TL6975 Preserves and Critical Habitat
SDG&E Tie-Line 6975 Project





Legend

- Survey Area
- Temporary Impacts
- City Boundary
- Conserved Lands (SANDAG)
- Multiple Species Conservation Program (MSCP)
- Pre-Approved Mitigation Area (PAMA)
- Multiple Habitat Conservation Program (MHCP)

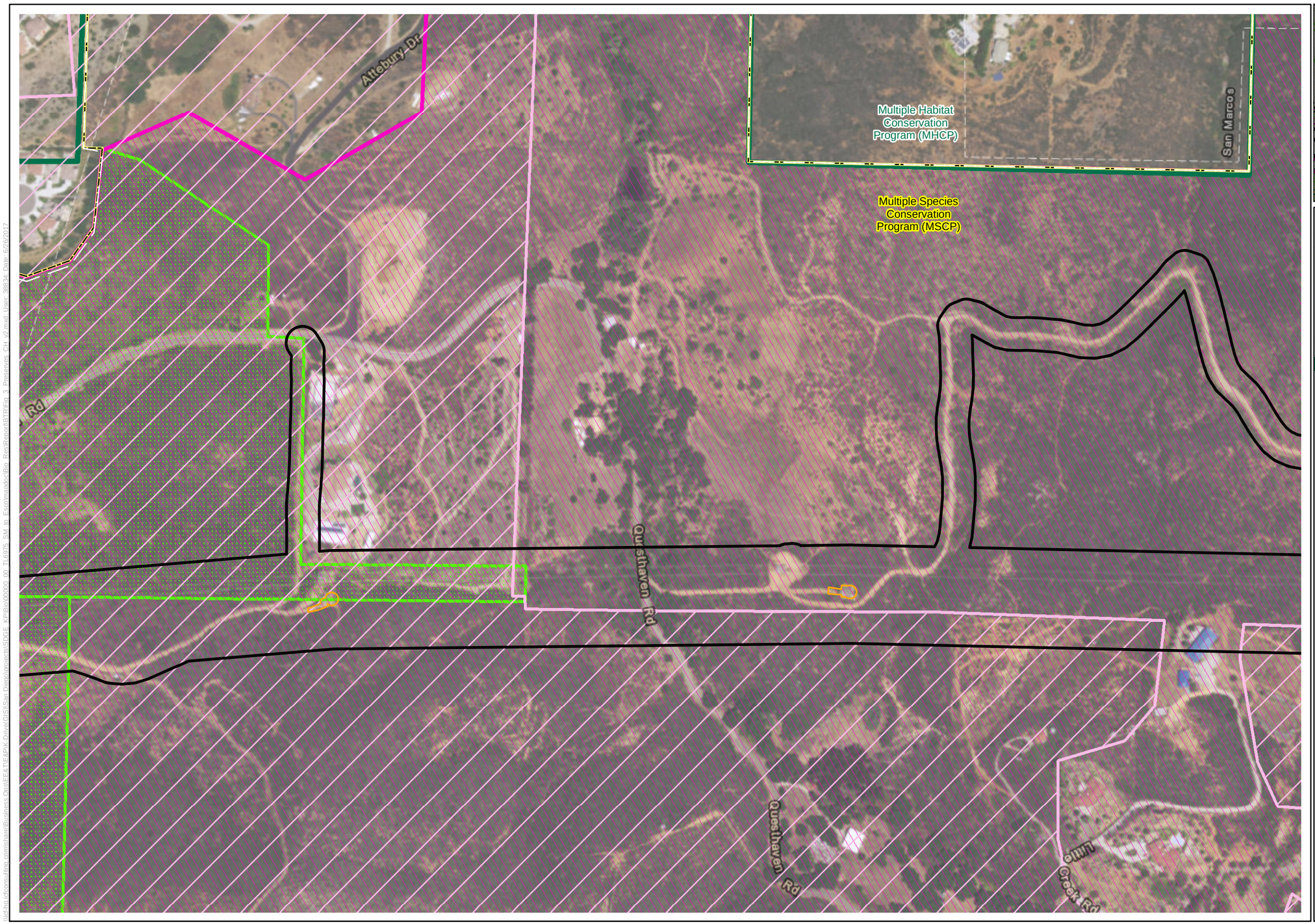
Critical Habitat (USFWS)

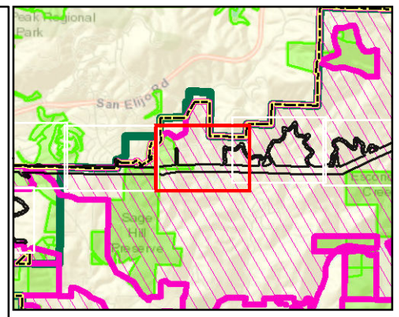
- Coastal California gnatcatcher

Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

Figure 3 - TL6975 Sheet 11
TL6975 Preserves and Critical Habitat
SDG&E Tie-Line 6975 Project





Legend

- Survey Area
- Temporary Impacts
- City Boundary
- Conserved Lands (SANDAG)
- Multiple Species Conservation Program (MSCP)
- Pre-Approved Mitigation Area (PAMA)
- Multiple Habitat Conservation Program (MHCP)

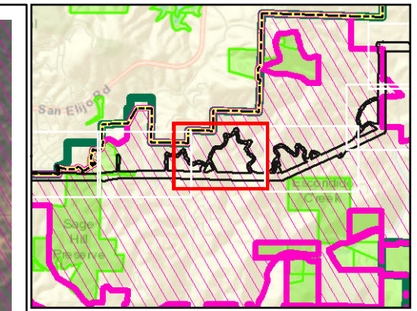
Critical Habitat (USFWS)

- Coastal California gnatcatcher

Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

Figure 3 - TL6975 Sheet 12
TL6975 Preserves and Critical Habitat
SDG&E Tie-Line 6975 Project



Legend

- Survey Area
- Temporary Impacts
- City Boundary
- Multiple Species Conservation Program (MSCP)
- Pre-Approved Mitigation Area (PAMA)
- Multiple Habitat Conservation Program (MHCP)

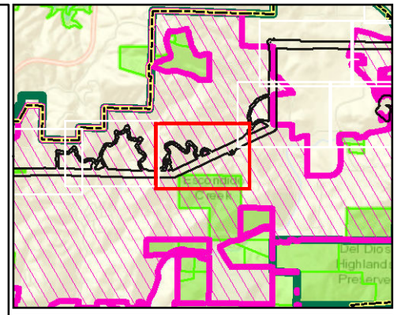
Critical Habitat (USFWS)

- Coastal California gnatcatcher

Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

Figure 3 - TL6975 Sheet 13
TL6975 Preserves and Critical Habitat
SDG&E Tie-Line 6975 Project



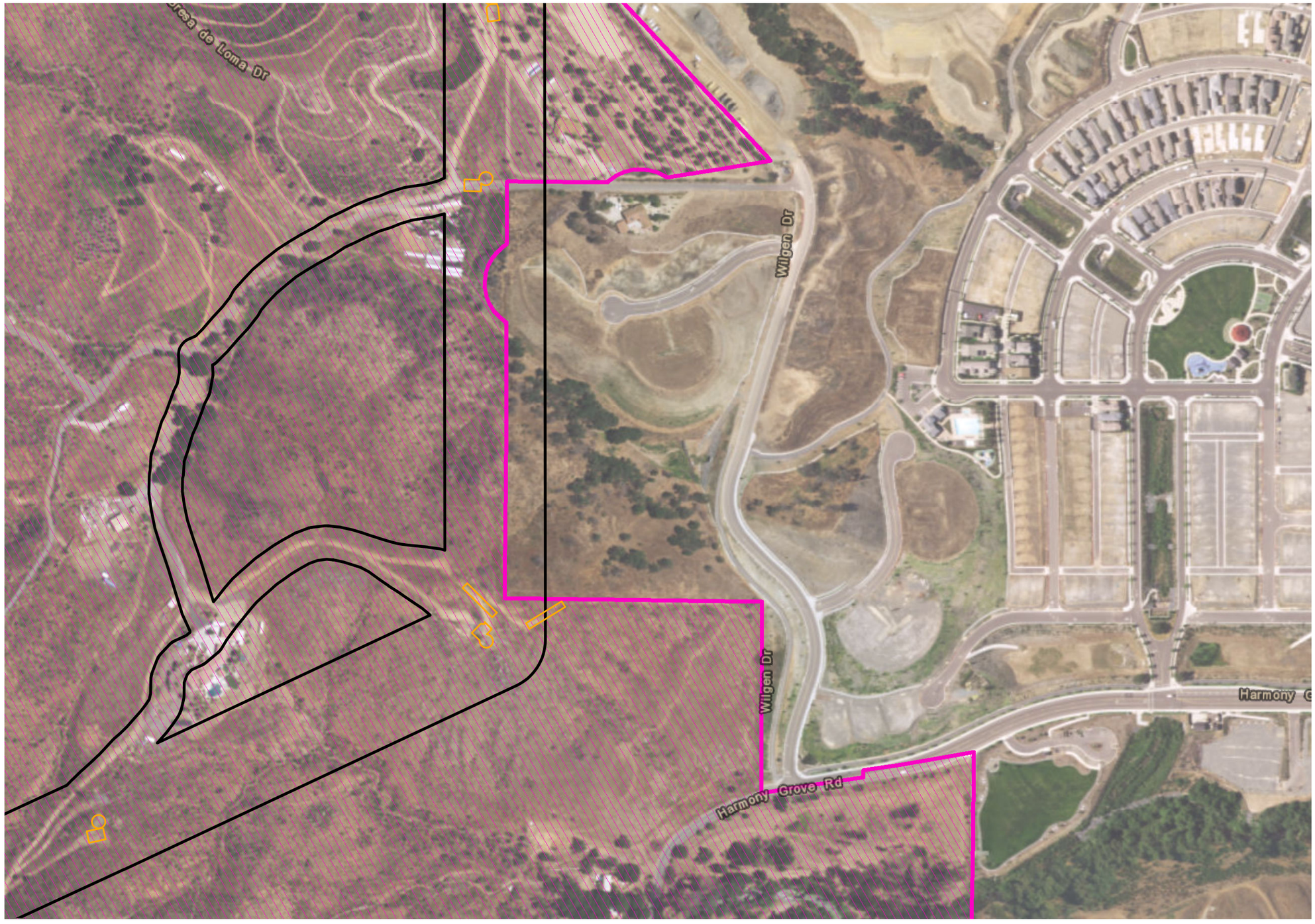
Legend

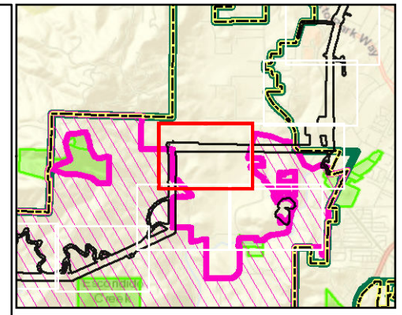
- Survey Area
- Temporary Impacts
- City Boundary
- Conserved Lands (SANDAG)
- Multiple Species Conservation Program (MSCP)
- Pre-Approved Mitigation Area (PAMA)

Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

Figure 3 - TL6975 Sheet 14
TL6975 Preserves and Critical Habitat
SDG&E Tie-Line 6975 Project


Loma Verde Dr
Loma Verde Dr
Loma Verde Dr



Legend

- Survey Area
- Temporary Impacts
- City Boundary
- Multiple Species Conservation Program (MSCP)
- Pre-Approved Mitigation Area (PAMA)

Source:ICF; KP; SDG&E; ESRI 2017

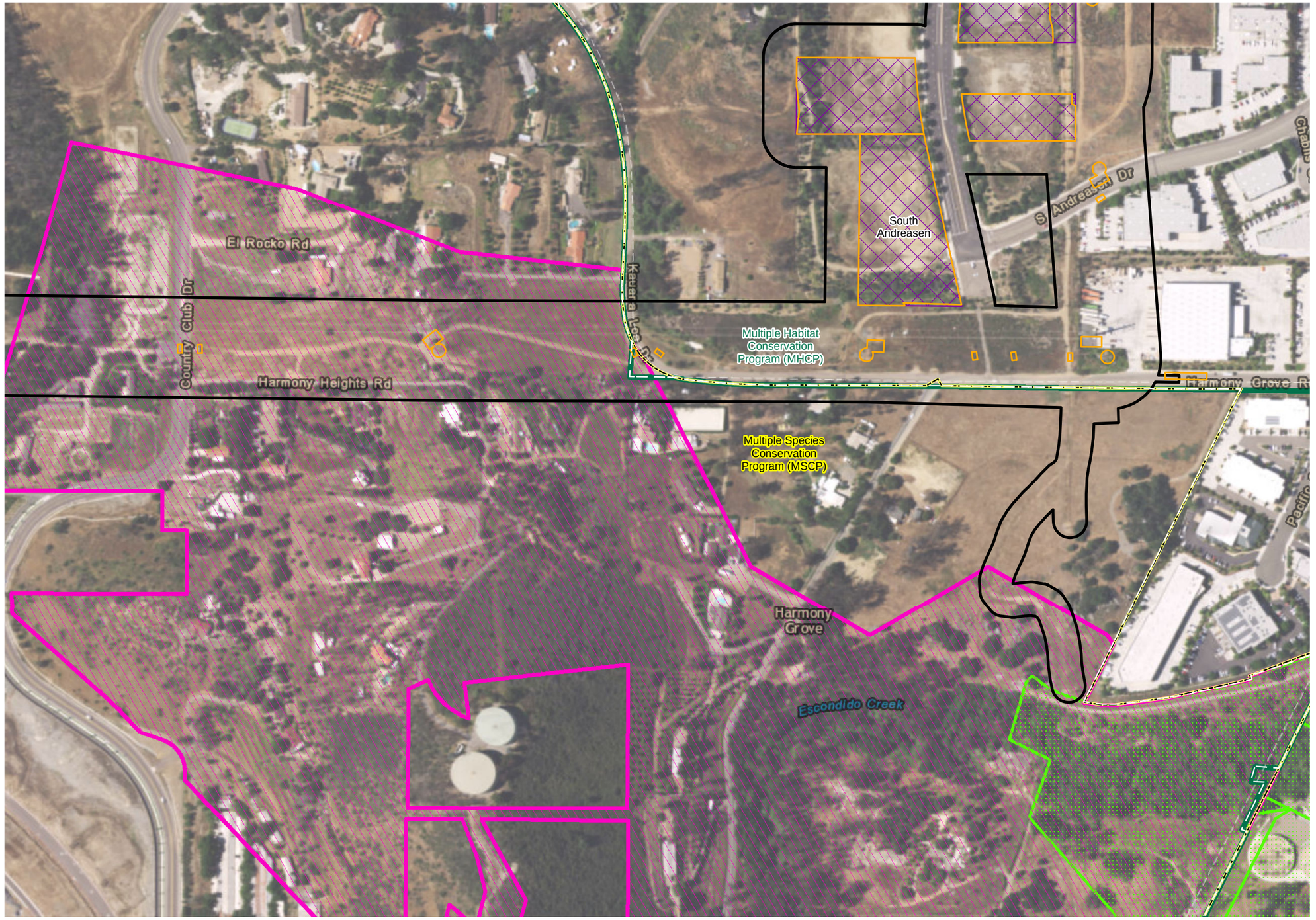
ICF

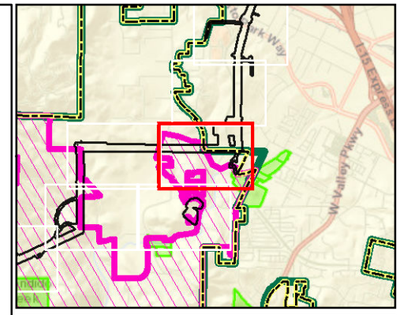
N

0 150 300 Feet

1:3,600

Figure 3 - TL6975 Sheet 16
TL6975 Preserves and Critical Habitat
SDG&E Tie-Line 6975 Project





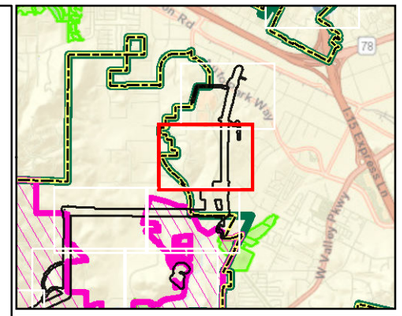
Legend

- Survey Area
- Temporary Impacts
- Staging Yard
- City Boundary
- Conserved Lands (SANDAG)
- Multiple Species Conservation Program (MSCP)
- Pre-Approved Mitigation Area (PAMA)
- Multiple Habitat Conservation Program (MHCP)

Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

Figure 3 - TL6975 Sheet 17
TL6975 Preserves and Critical Habitat
SDG&E Tie-Line 6975 Project



Legend

- Survey Area
- Temporary Impacts
- Staging Yard
- City Boundary
- Multiple Species Conservation Program (MSCP)
- Multiple Habitat Conservation Program (MHCP)

Source:ICF; KP; SDG&E; ESRI 2017

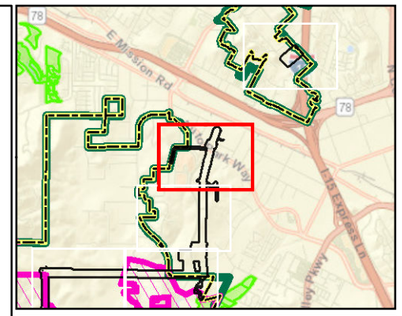
ICF

N

0 150 300 Feet

1:3,600

Figure 3 - TL6975 Sheet 18
TL6975 Preserves and Critical Habitat
SDG&E Tie-Line 6975 Project



Legend

- Survey Area
- Temporary Impacts
- Permanent Impacts
- Staging Yard
- City Boundary
- Multiple Species Conservation Program (MSCP)
- Multiple Habitat Conservation Program (MHCP)

Source:ICF; KP; SDG&E; ESRI 2017

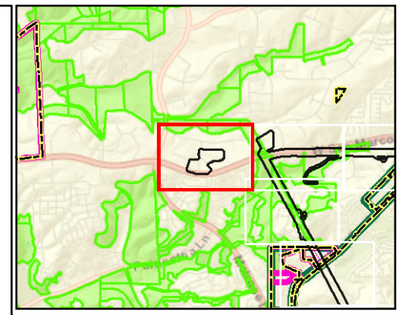
ICF

N

0 150 300 Feet

1:3,600

Figure 3 - TL6975 Sheet 19
TL6975 Preserves and Critical Habitat
SDG&E Tie-Line 6975 Project



Legend

- Survey Area
- Temporary Impacts
- Staging Yard
- City Boundary
- Conserved Lands (SANDAG)
- Multiple Habitat Conservation Program (MHCP)

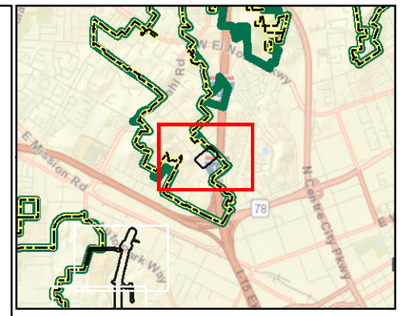
Critical Habitat (USFWS)

- Coastal California gnatcatcher
- Thread-leaved brodiaea

Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

Figure 3 - Staging Yard Sheet 1
TL6975 Preserves and Critical Habitat
SDG&E Tie-Line 6975 Project



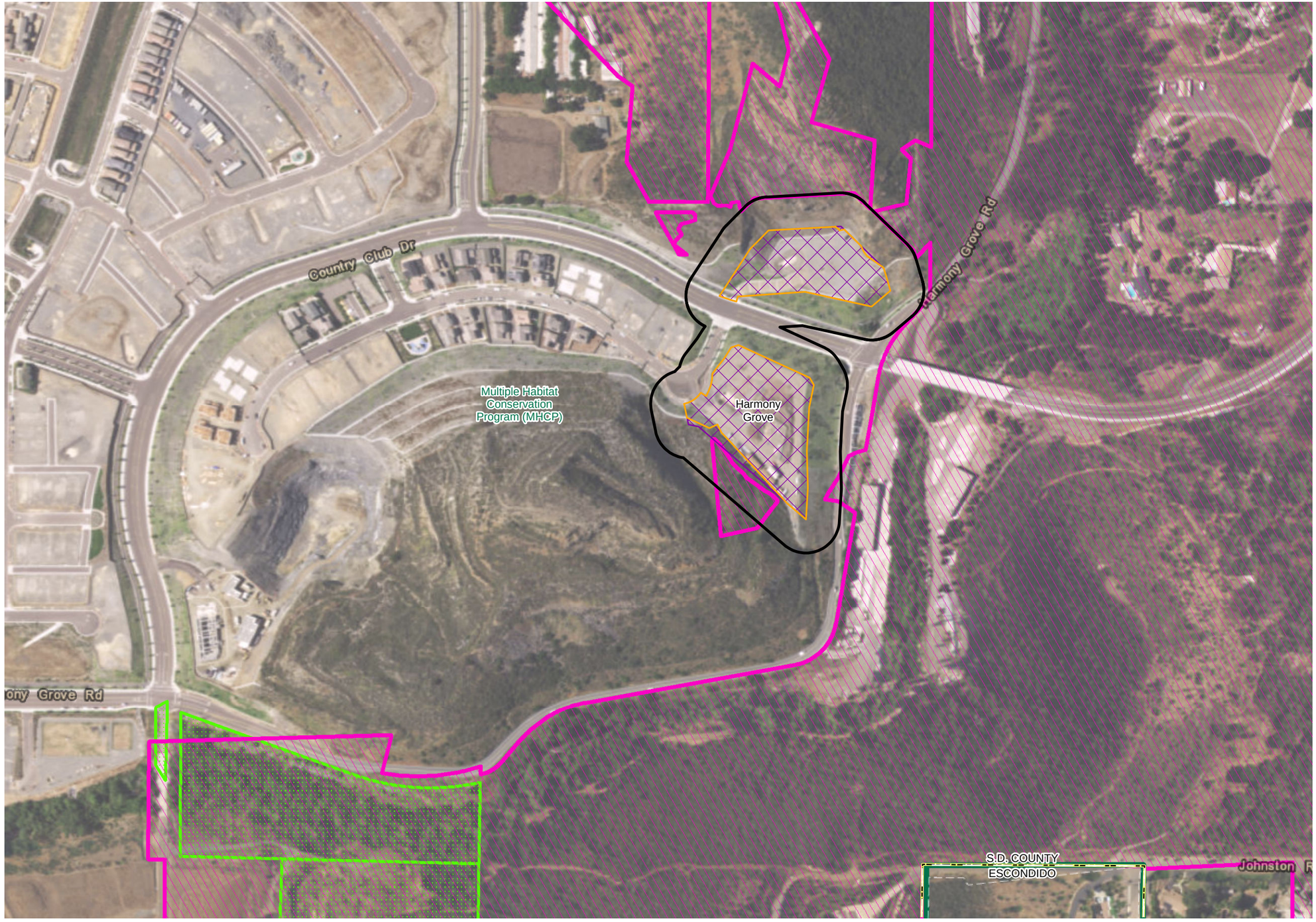
Legend

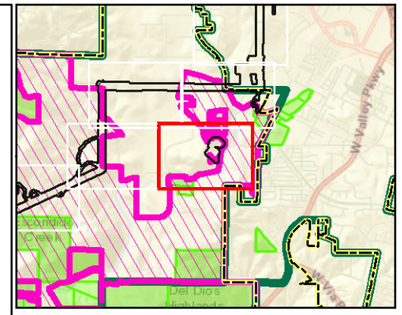
- Survey Area
- Temporary Impacts
- Staging Yard
- City Boundary
- Multiple Species Conservation Program (MSCP)
- Multiple Habitat Conservation Program (MHCP)

Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

Figure 3 - Staging Yard Sheet 2
TL6975 Preserves and Critical Habitat
SDG&E Tie-Line 6975 Project





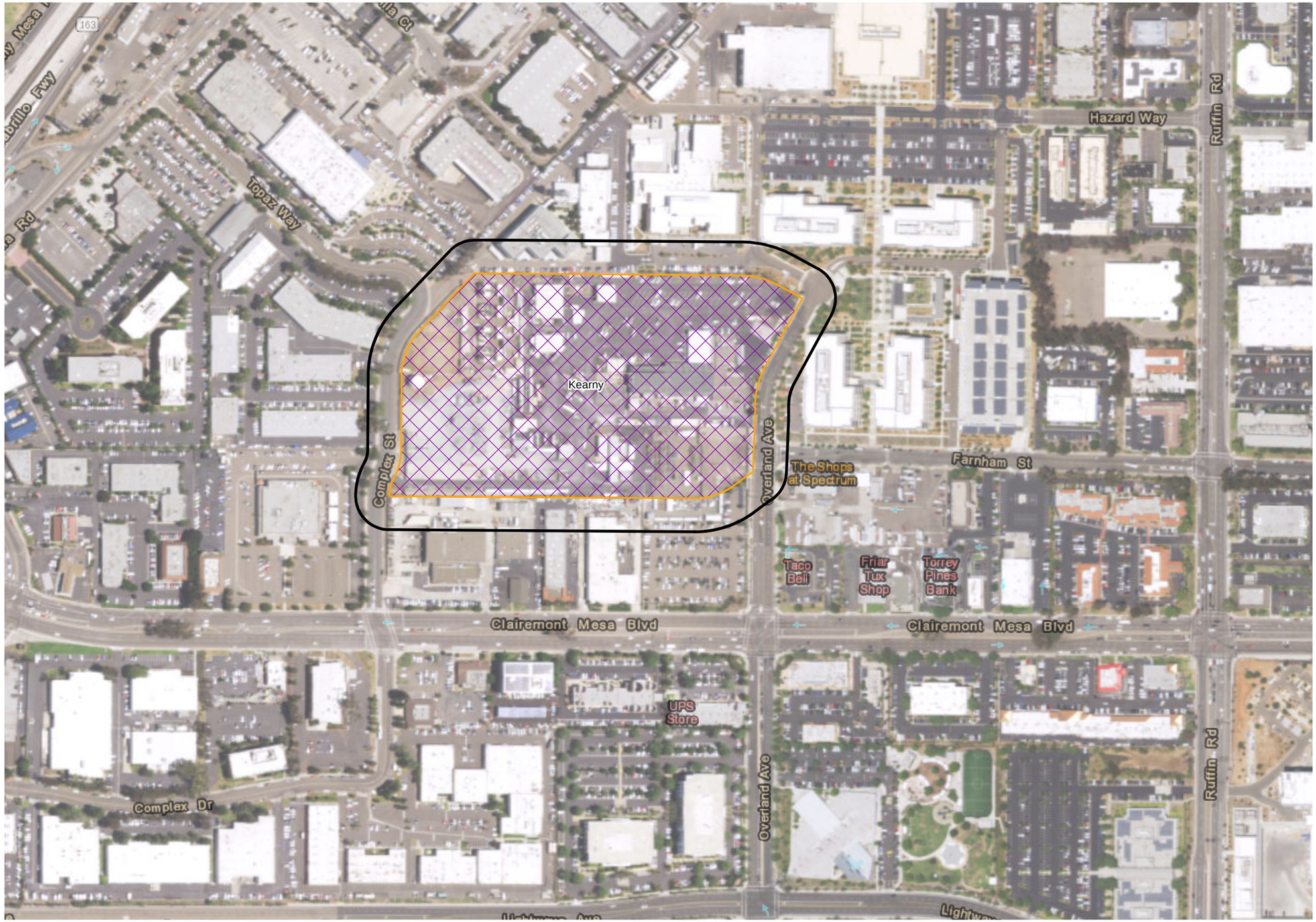
Legend

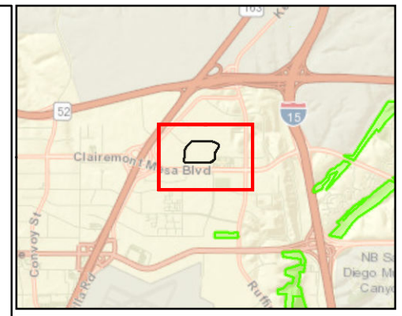
- Survey Area
- Temporary Impacts
- Staging Yard
- City Boundary
- Conserved Lands (SANDAG)
- Multiple Species Conservation Program (MSCP)
- Pre-Approved Mitigation Area (PAMA)
- Multiple Habitat Conservation Program (MHCP)

Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

Figure 3 - Staging Yard Sheet 3
TL6975 Preserves and Critical Habitat
SDG&E Tie-Line 6975 Project





Legend

- Survey Area
- Temporary Impacts
- Staging Yard
- City Boundary

Source:ICF; KP; SDG&E; ESRI 2017

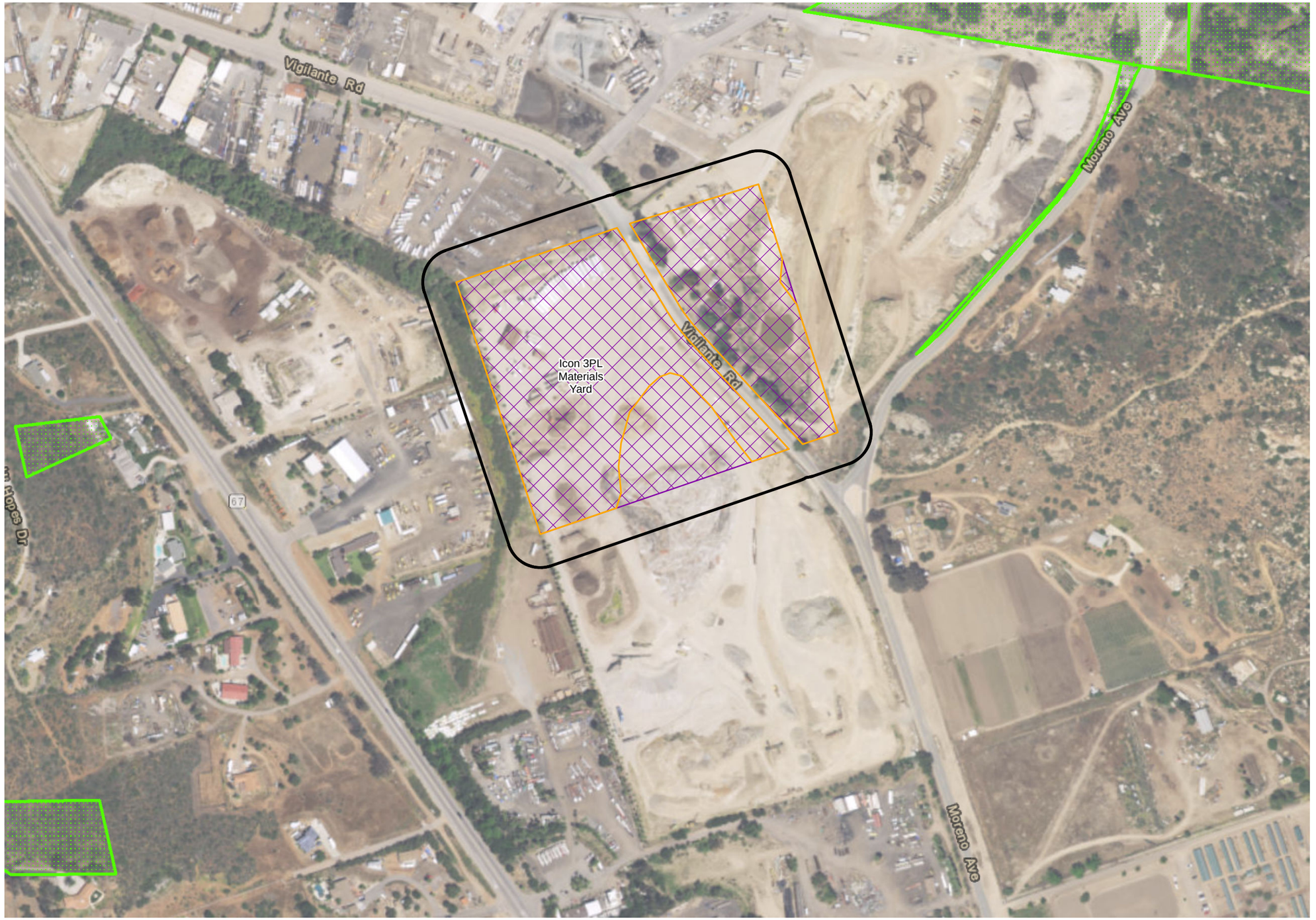
ICF

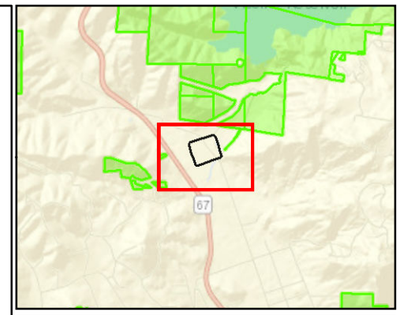
N

0 150 300 Feet

1:3,600

Figure 3 - Staging Yard Sheet 4
TL6975 Preserves and Critical Habitat
SDG&E Tie-Line 6975 Project





Legend

- Survey Area
- Temporary Impacts
- Staging Yard
- City Boundary
- Conserved Lands (SANDAG)

Source:ICF; KP; SDG&E; ESRI 2017

ICF

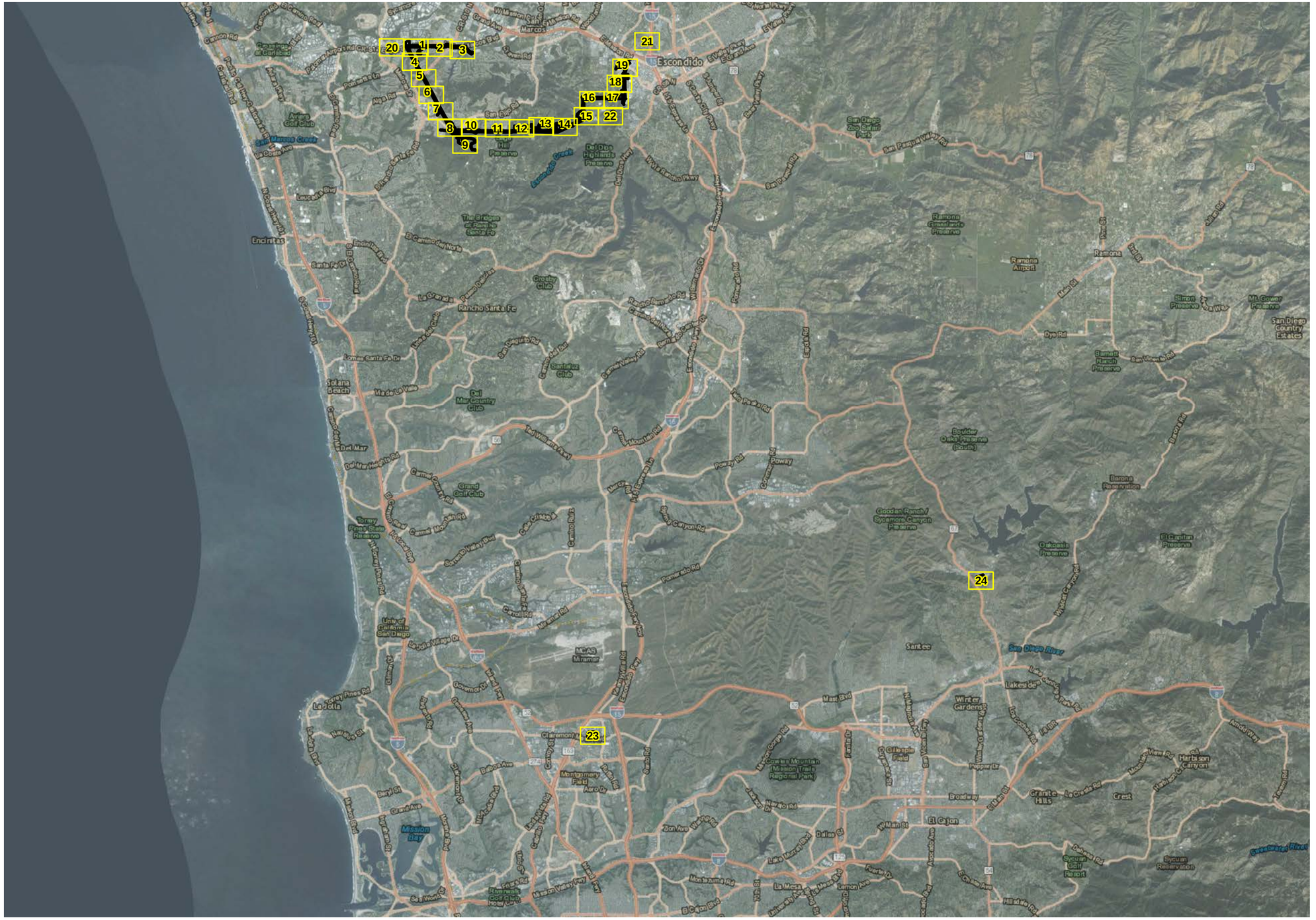
N

0 150 300 Feet

1:3,600

Figure 3 - Staging Yard Sheet 5
TL6975 Preserves and Critical Habitat
SDG&E Tie-Line 6975 Project

Appendix E.2: Vegetation and Special-Status Species Mapbook



Legend

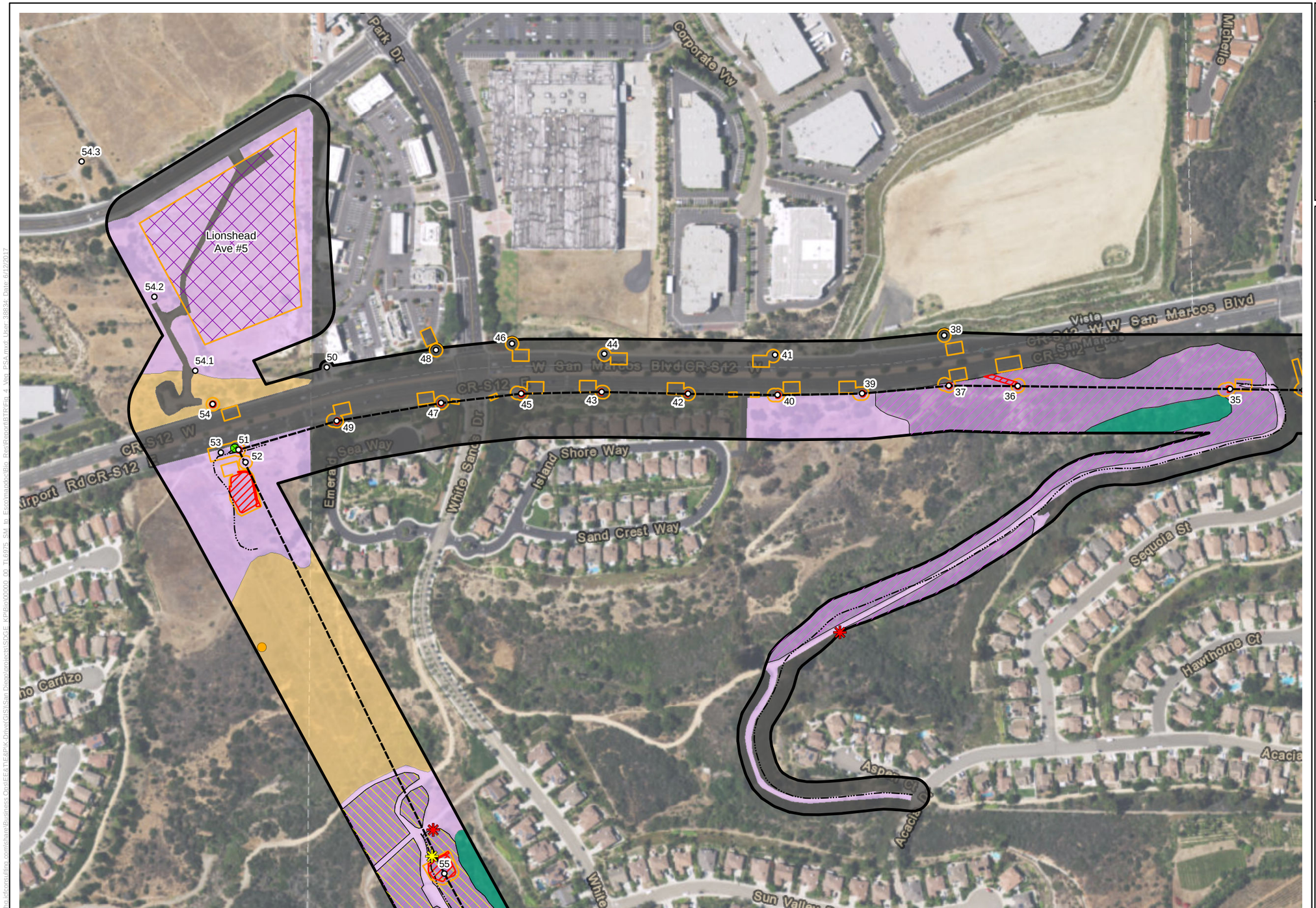
- Survey Area
- Detail Map Sheets

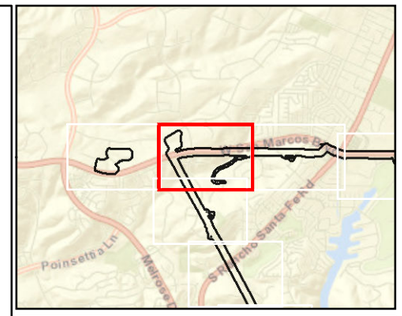
Source:ICF; KP; SDG&E; ESRI 2017

0 8,000 16,000 Feet

1:190,080

Figure 4
Vegetation and Special-Status Species
SDG&E Tie-Line 6975 Project





Legend

- Survey Area
- Temporary Impacts
- Permanent Impacts
- Staging Yard
- Existing Structure
- Gate
- Transmission Line
- Access Road

Vegetation Communities

- Diegan Coastal Sage Scrub
- Southern Maritime Chaparral
- Southern Riparian Forest
- Disturbed Habitat
- Urban/Developed

Wildlife

- Coastal California gnatcatcher *(Polioptila californica californica)*

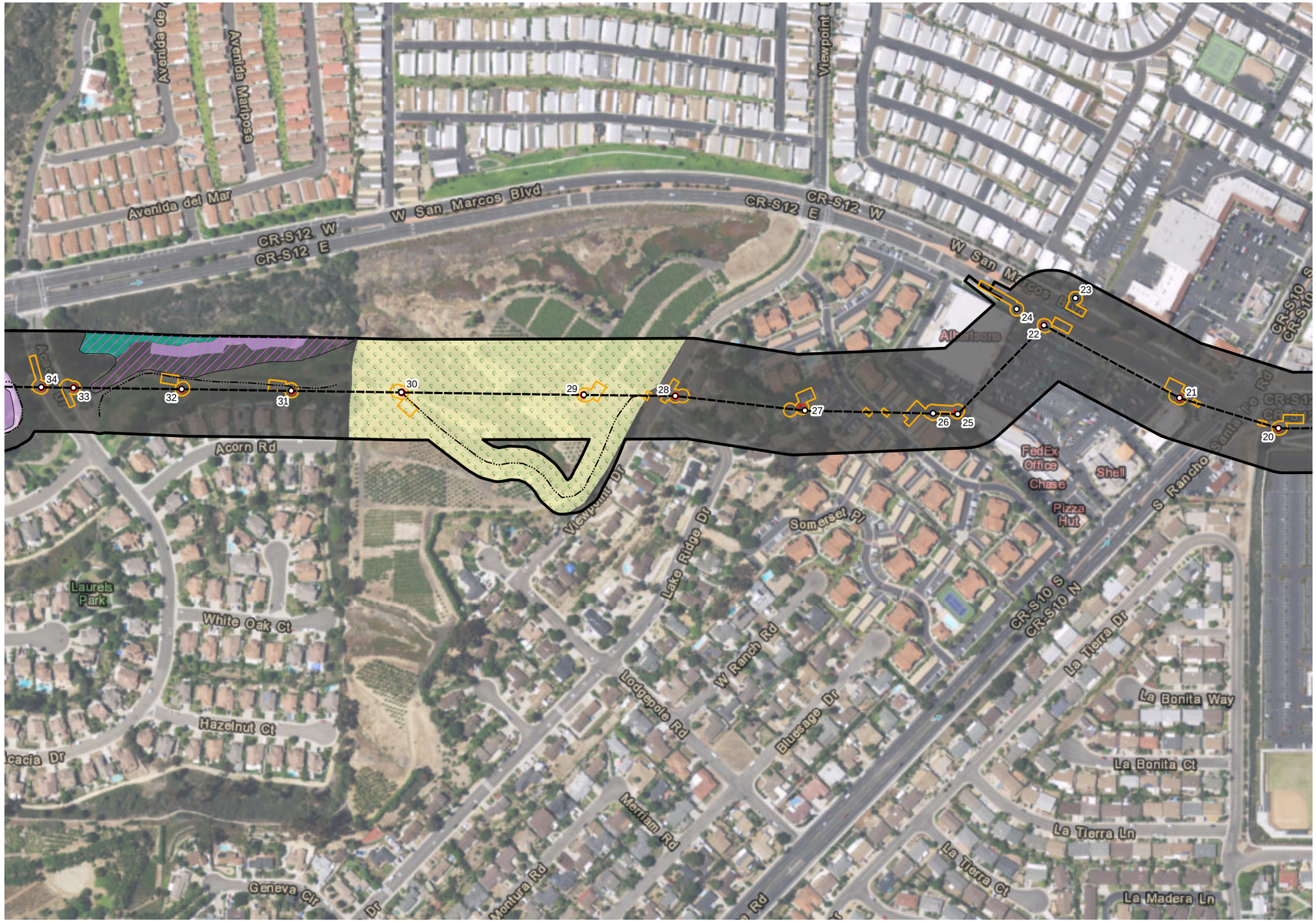
Sensitive Plants

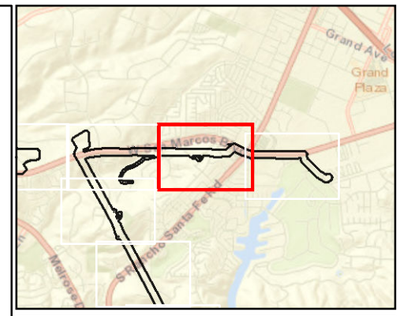
- California adolphia *(Adolphia californica)*
- Summer holly *(Comarostaphylis diversifolia ssp. diversifolia)*
- Nuttall's scrub oak *(Quercus dumosa)*
- Wart-stemmed ceanothus *(Ceanothus verrucosus)*

Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

Figure 4 TL6975 Sheet 1
Vegetation and Special-Status Species
SDG&E Tie-Line 6975 Project





Legend

- Survey Area
- Temporary Impacts
- Permanent Impacts
- Existing Structure
- Transmission Line
- Access Road

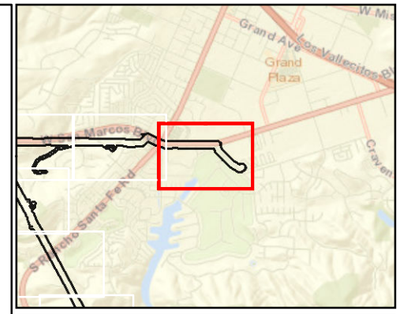
Vegetation Communities

- Southern Maritime Chaparral
- Southern Riparian Forest
- Disturbed Habitat
- Urban/Developed
- Orchard/Vineyard
- Wart-stemmed ceanothus *(Ceanothus verrucosus)*

Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

Figure 4 TL6975 Sheet 2
Vegetation and Special-Status Species
SDG&E Tie-Line 6975 Project



Legend

- Survey Area
- Temporary Impacts
- Permanent Impacts
- Existing Structure
- Transmission Line

Vegetation Communities

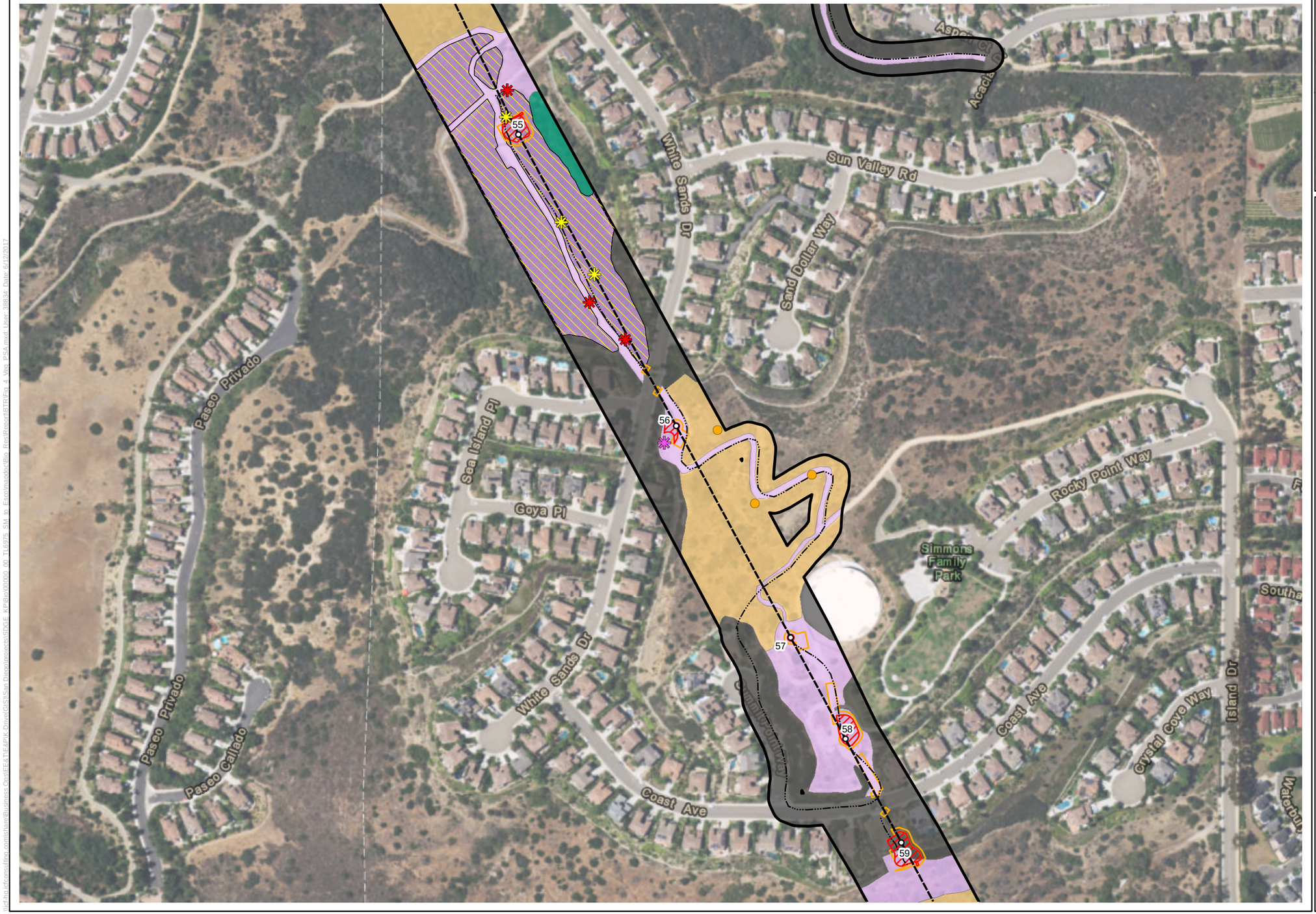
- Southern Riparian Forest
- Disturbed Habitat
- Urban/Developed

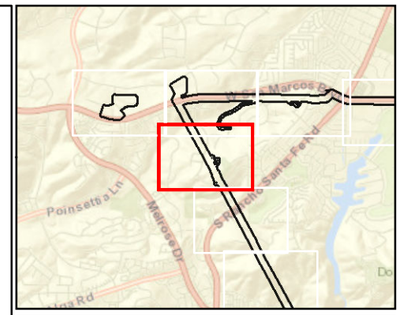
Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

N

Figure 4 TL6975 Sheet 3
Vegetation and Special-Status Species
SDG&E Tie-Line 6975 Project





Legend

- Survey Area
- Temporary Impacts
- Permanent Impacts
- Existing Structure
- Transmission Line
- Access Road

Vegetation Communities

- Diegan Coastal Sage Scrub
- Southern Maritime Chaparral
- Southern Riparian Forest
- Disturbed Habitat
- Urban/Developed

Wildlife

- Coastal California gnatcatcher *(Polioptila californica californica)*

Sensitive Plants

- California adolphia *(Adolphia californica)*
- San Diego gumplant*(Grindelia halii)*
- Summer holly *(Comarostaphylis diversifolia ssp. diversifolia)*
- Nuttall's scrub oak *(Quercus dumosa)*
- Wart-stemmed ceanothus *(Ceanothus verrucosus)*

Source:ICF; KP; SDG&E; ESRI 2017

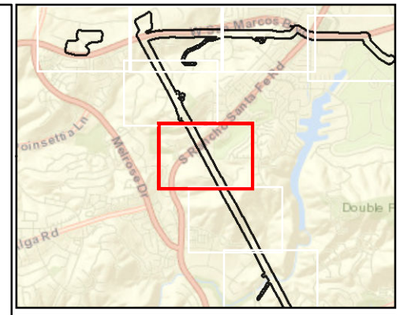
ICF

N

0 150 300 Feet

1:3,600

Figure 4 TL6975 Sheet 4
Vegetation and Special-Status Species
SDG&E Tie-Line 6975 Project



Legend

- Survey Area
- Temporary Impacts
- Permanent Impacts
- Existing Structure
- Transmission Line
- Access Road

Vegetation Communities

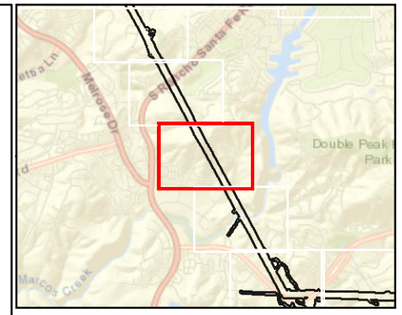
- Diegan Coastal Sage Scrub
- Disturbed Habitat
- Urban/Developed

Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

N

Figure 4 TL6975 Sheet 5
Vegetation and Special-Status Species
SDG&E Tie-Line 6975 Project



Legend

- Survey Area
- Temporary Impacts
- Permanent Impacts
- Existing Structure
- Transmission Line
- Access Road

Vegetation Communities

- Diegan Coastal Sage Scrub
- Southern Maritime Chaparral
- Disturbed Habitat
- Urban/Developed
- Orchard/Vineyard

Wildlife

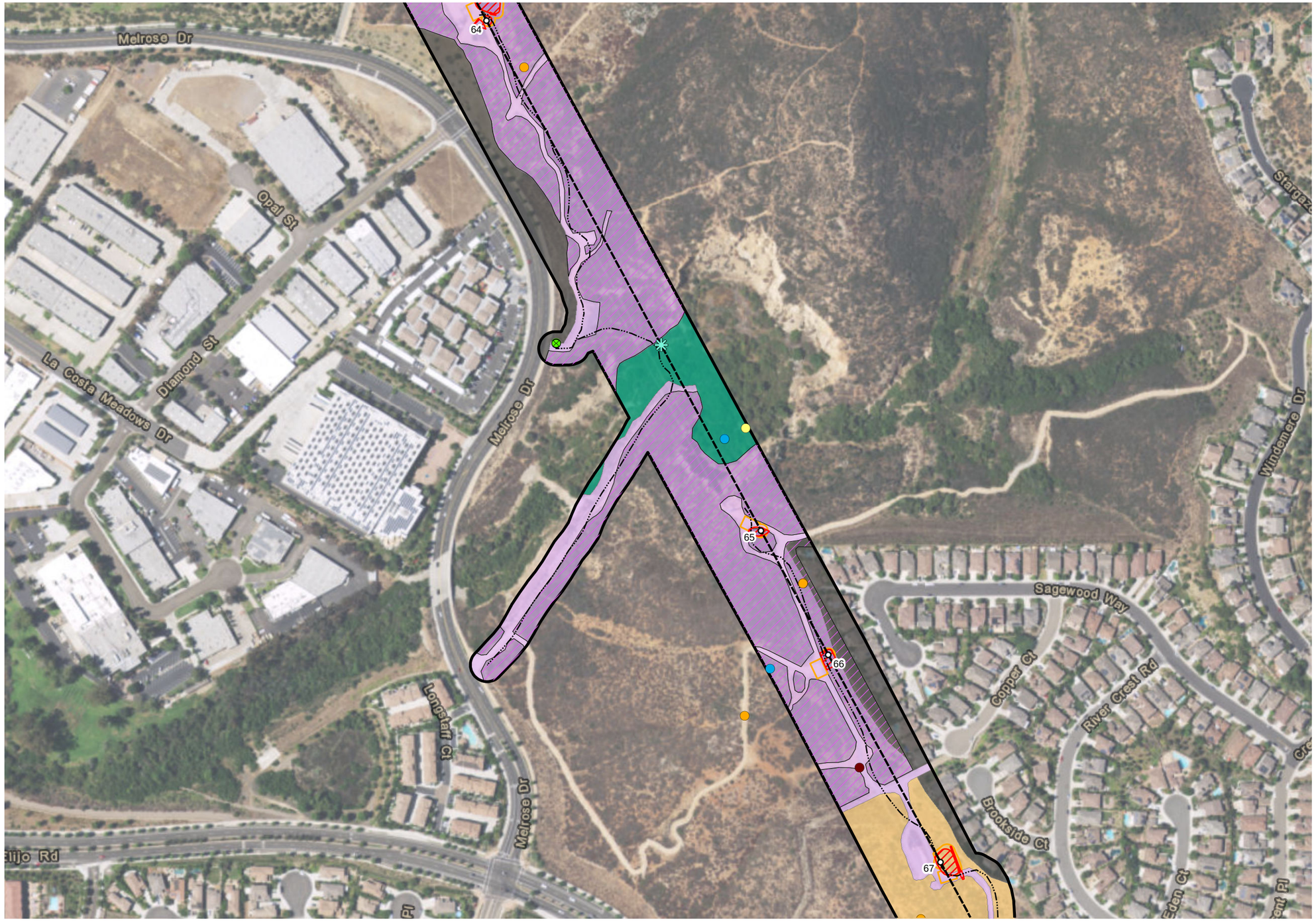
- Coastal California gnatcatcher *(Polioptila californica californica)*
- Wart-stemmed ceanothus *(Ceanothus verrucosus)*

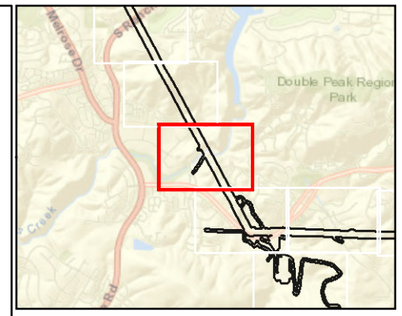
Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

N

Figure 4 TL6975 Sheet 6
Vegetation and Special-Status Species
SDG&E Tie-Line 6975 Project





Legend

- Survey Area
- Temporary Impacts
- Permanent Impacts
- Existing Structure
- Gate
- Transmission Line
- Access Road

Vegetation Communities

- Diegan Coastal Sage Scrub
- Southern Maritime Chaparral
- Southern Riparian Forest
- Disturbed Habitat
- Urban/Developed

Wildlife

- Coastal California gnatcatcher *(Polioptila californica californica)*
- Least Bell's vireo *(Vireo bellii pusillus)*
- Southern California rufous-crowned sparrow *(Aimophila ruficeps canescens)*
- Yellow warbler

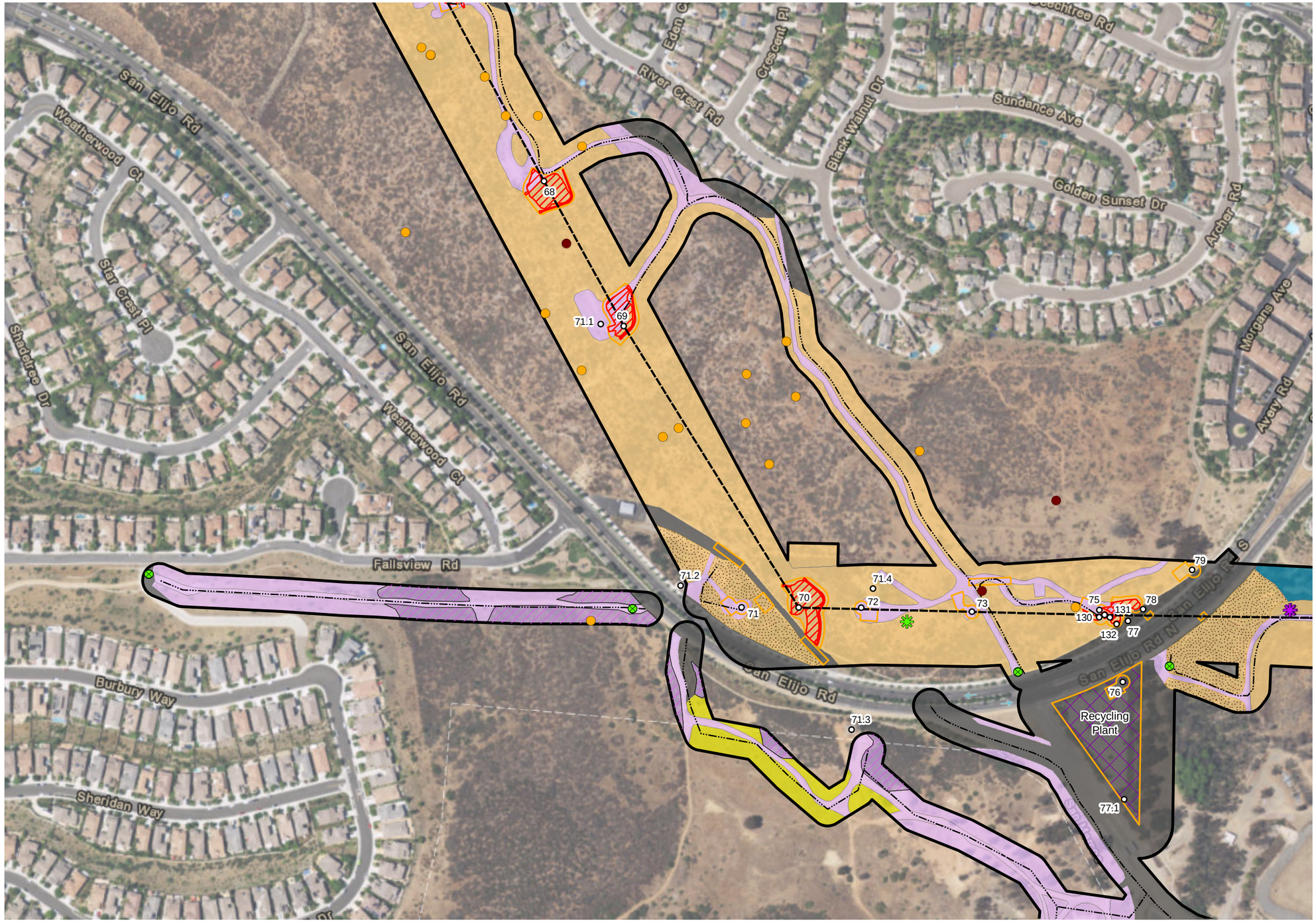
Sensitive Plants

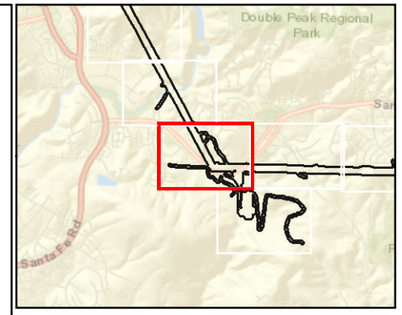
- San Diego marsh-elder*(Iva hayesiana)*
- Wart-stemmed ceanothus *(Ceanothus verrucosus)*

Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

Figure 4 TL6975 Sheet 7
Vegetation and Special-Status Species
SDG&E Tie-Line 6975 Project





Legend

- Survey Area
- Temporary Impacts
- Permanent Impacts
- Staging Yard
- Existing Structure
- Gate
- Transmission Line
- Access Road

Vegetation Communities

- Diegan Coastal Sage Scrub
- Diegan Coastal Sage Scrub-Disturbed
- Southern Maritime Chaparral
- Non-Native Grassland
- Disturbed Habitat
- Urban/Developed
- Eucalyptus Woodland

Wildlife

- Coastal California gnatcatcher *(Polioptila californica californica)*
- Southern California rufous-crowned sparrow *(Aimophila ruficeps canescens)*

Sensitive Plants

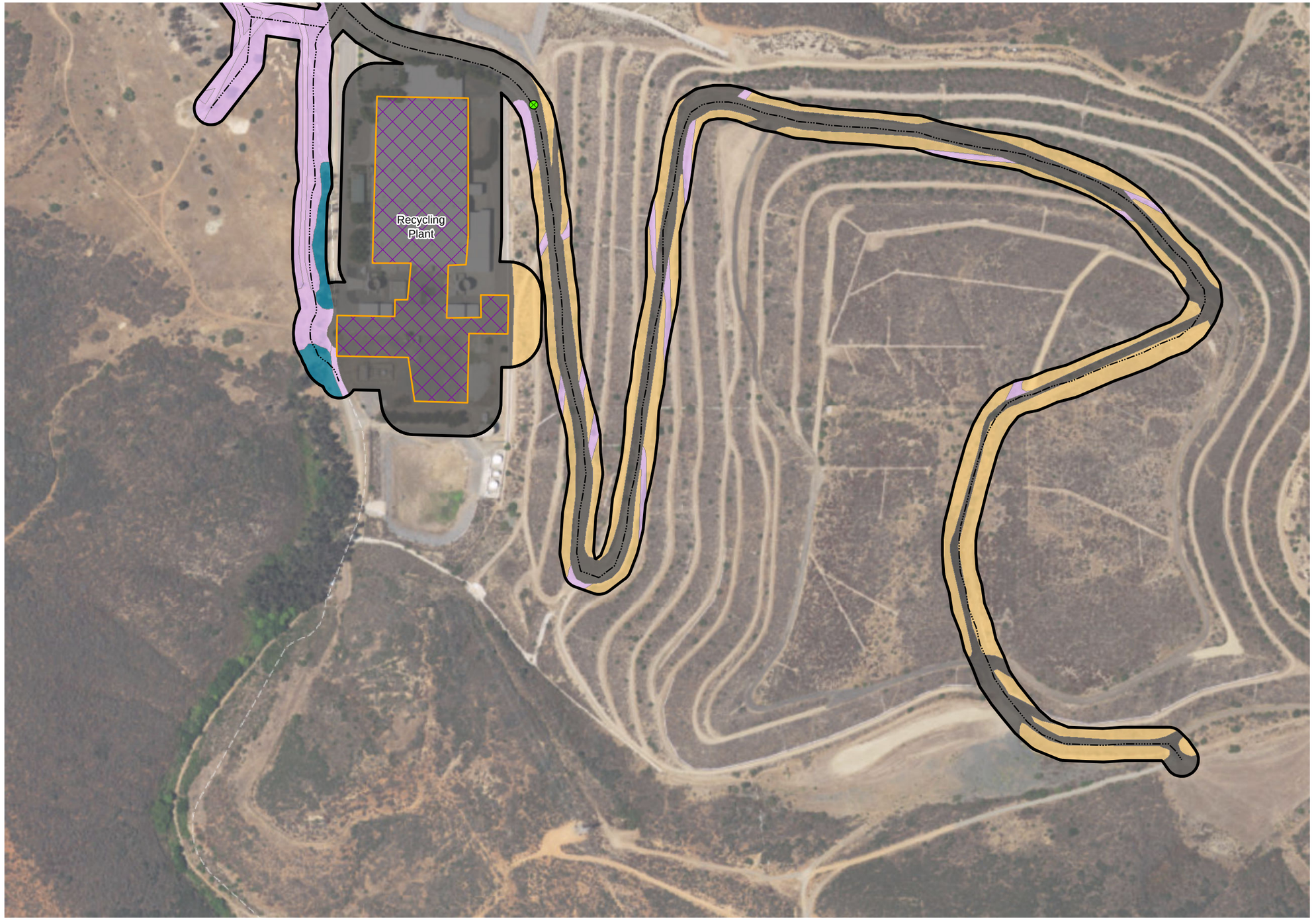
- Mesa spike-moss *(Selaginella cinerascens)*
- Ramona horkelia *(Horkelia truncata)*
- Wart-stemmed ceanothus *(Ceanothus verrucosus)*

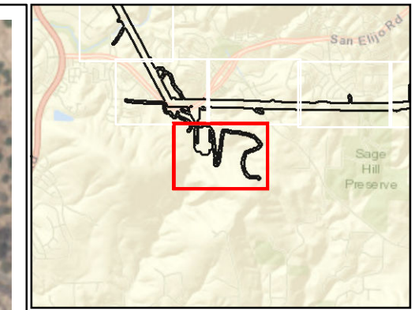
Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

N

Figure 4 TL6975 Sheet 8
Vegetation and Special-Status Species
SDG&E Tie-Line 6975 Project





Legend

- Survey Area
- Temporary Impacts
- Staging Yard
- Gate
- Access Road

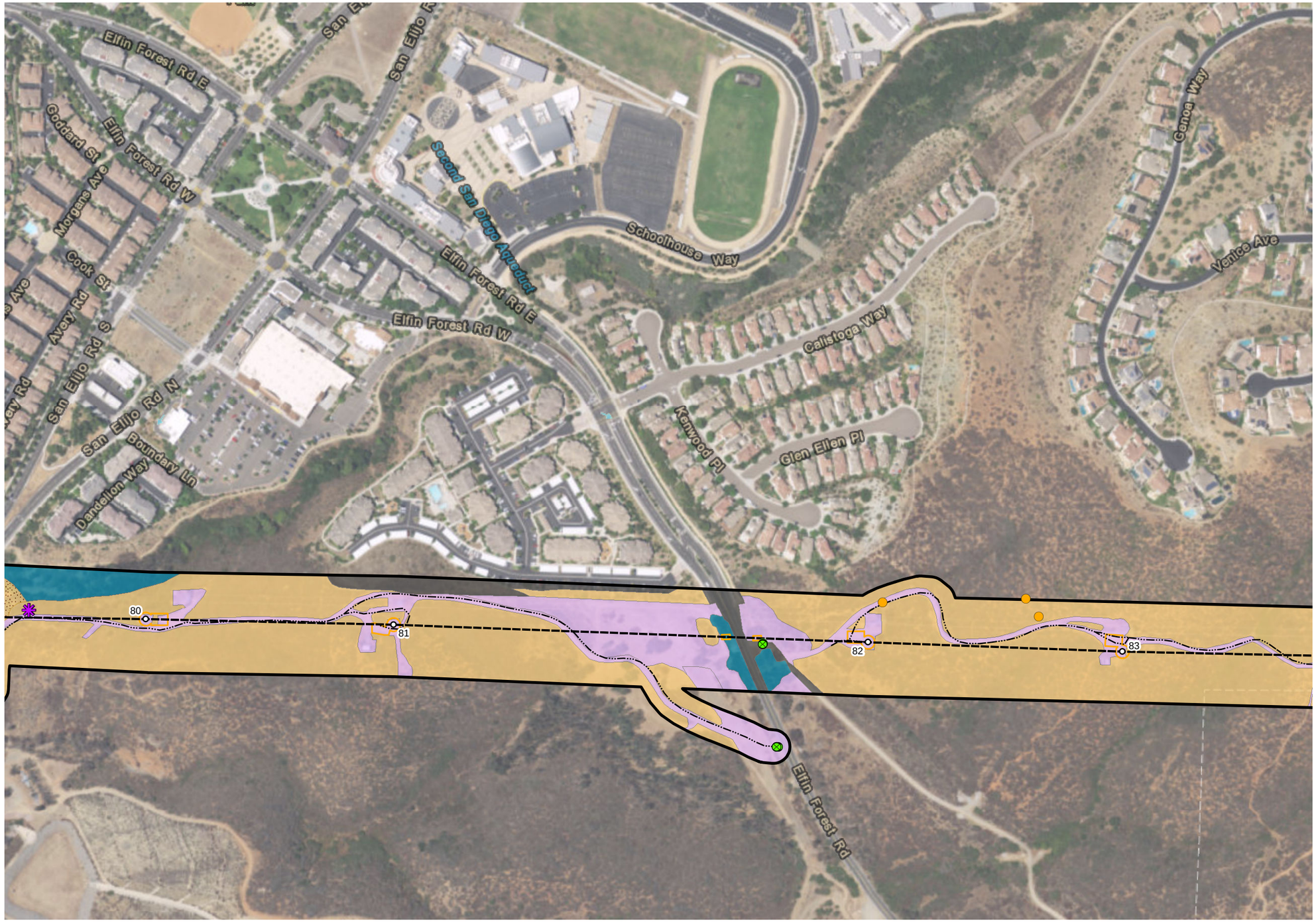
Vegetation Communities

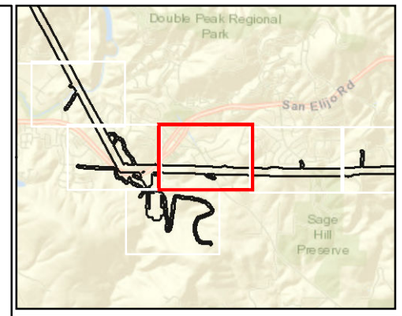
- Diegan Coastal Sage Scrub
- Disturbed Habitat
- Urban/Developed
- Eucalyptus Woodland

Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

Figure 4 TL6975 Sheet 9
Vegetation and Special-Status Species
SDG&E Tie-Line 6975 Project





Legend

- Survey Area
- Temporary Impacts
- Existing Structure
- Gate
- Transmission Line
- Access Road

Vegetation Communities

- Diegan Coastal Sage Scrub
- Diegan Coastal Sage Scrub-Disturbed
- Disturbed Habitat
- Urban/Developed
- Eucalyptus Woodland

Wildlife

- Coastal California gnatcatcher *(Polioptila californica californica)*

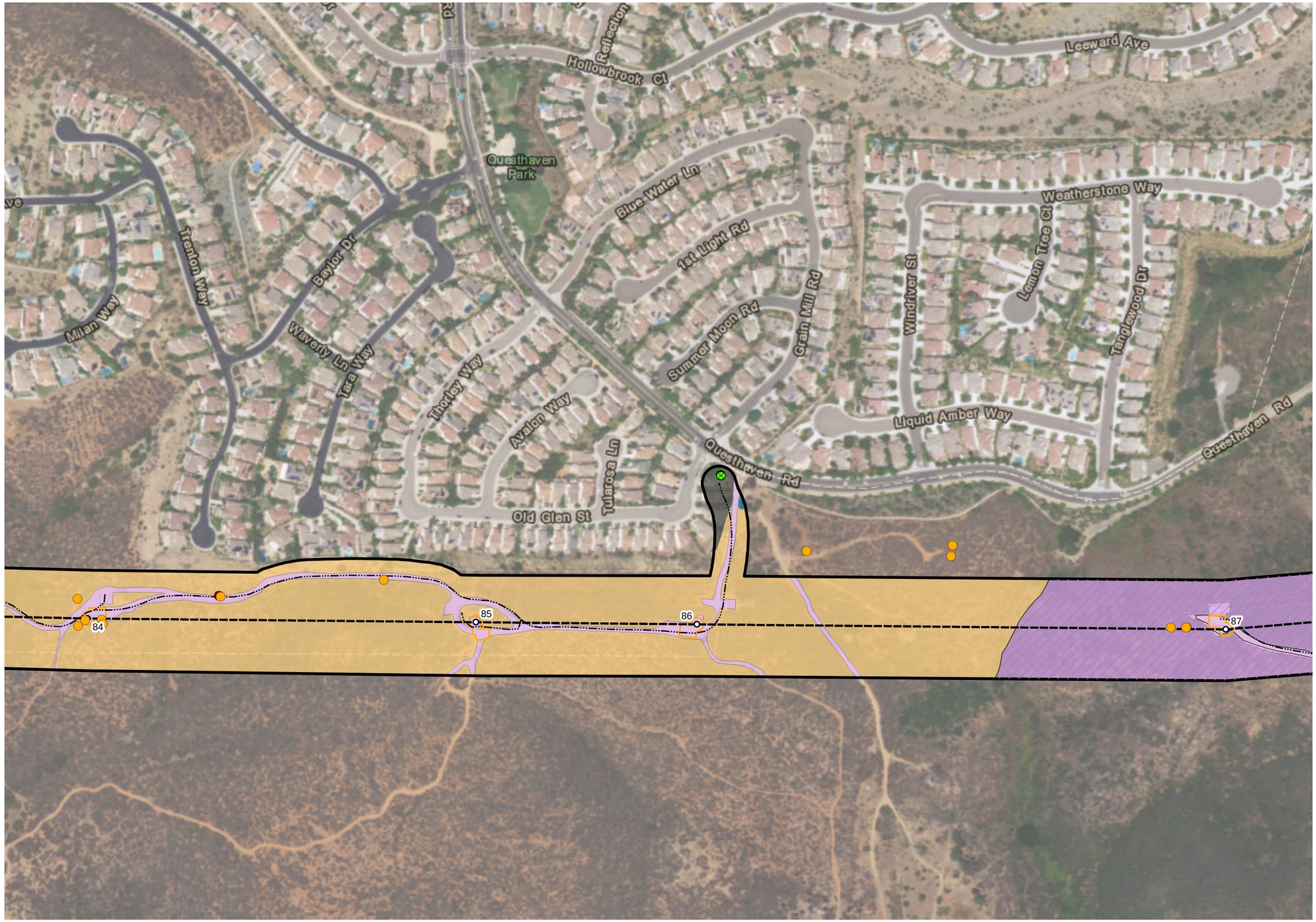
Sensitive Plants

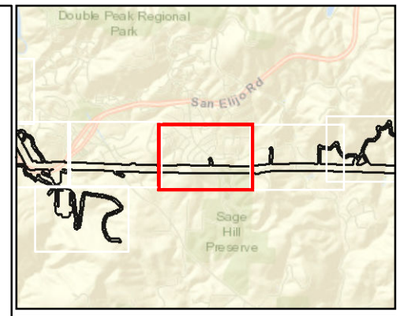
- Ramona horkelia *(Horkelia truncata)*

Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

Figure 4 TL6975 Sheet 10
Vegetation and Special-Status Species
SDG&E Tie-Line 6975 Project





Legend

- Survey Area
- Temporary Impacts
- Existing Structure
- Gate
- Transmission Line
- Access Road

Vegetation Communities

- Diegan Coastal Sage Scrub
- Southern Maritime Chaparral
- Disturbed Habitat
- Urban/Developed
- Eucalyptus Woodland

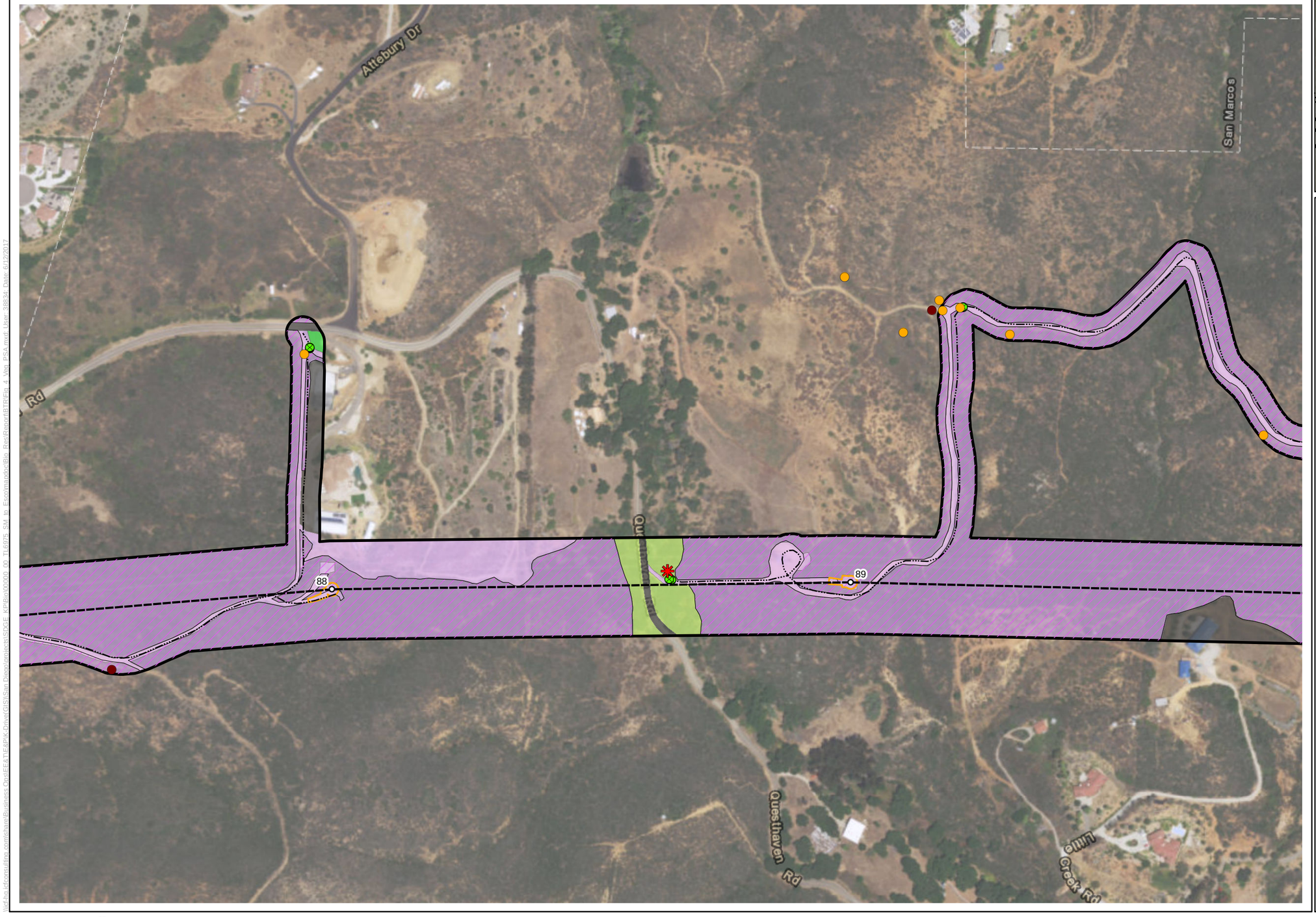
Wildlife

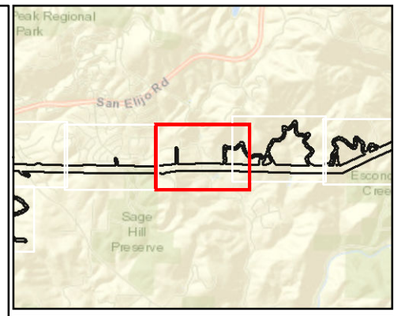
- Coastal California gnatcatcher *(Polioptila californica californica)*
- Southern California rufous-crowned sparrow *(Aimophila ruficeps canescens)*
- Wart-stemmed ceanothus *(Ceanothus verrucosus)*

Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

Figure 4 TL6975 Sheet 11
Vegetation and Special-Status Species
SDG&E Tie-Line 6975 Project





Legend

- Survey Area
- Temporary Impacts
- Existing Structure
- Gate
- Transmission Line
- Access Road

Vegetation Communities

- Southern Maritime Chaparral
- Coast Live Oak Woodland
- Disturbed Habitat
- Urban/Developed
- Non-Native Woodland

Wildlife

- Coastal California gnatcatcher *(Polioptila californica californica)*
- Southern California rufous-crowned sparrow *(Aimophila ruficeps canescens)*

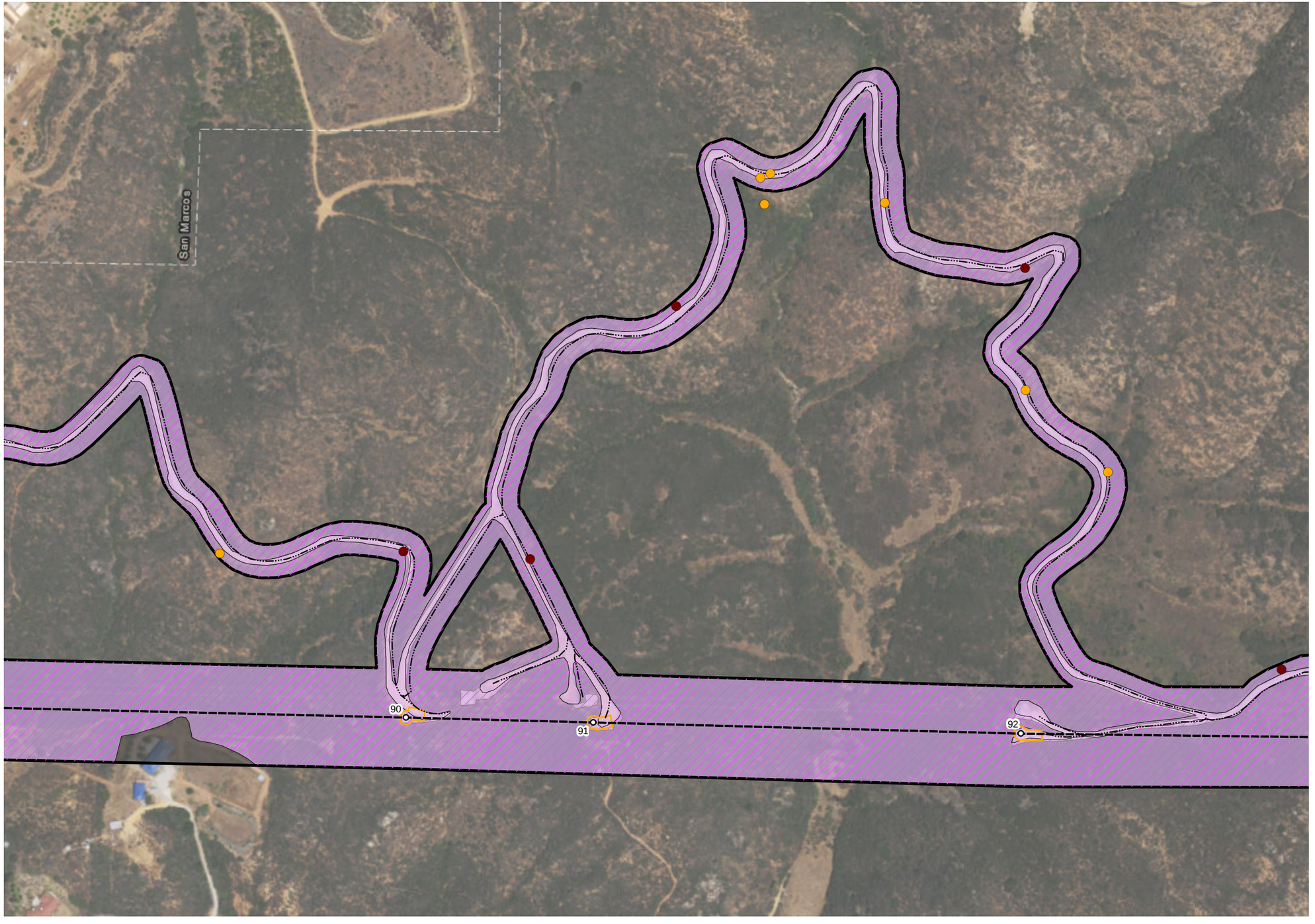
Sensitive Plants

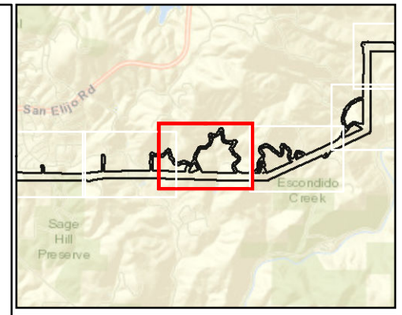
- Summer holly *(Comarostaphylis diversifolia ssp. diversifolia)*
- Wart-stemmed ceanothus *(Ceanothus verrucosus)*

Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

Figure 4 TL6975 Sheet 12
Vegetation and Special-Status Species
SDG&E Tie-Line 6975 Project





Legend

- Survey Area
- Temporary Impacts
- Existing Structure
- Transmission Line
- Access Road

Vegetation Communities

- Southern Maritime Chaparral
- Disturbed Habitat
- Urban/Developed

Wildlife

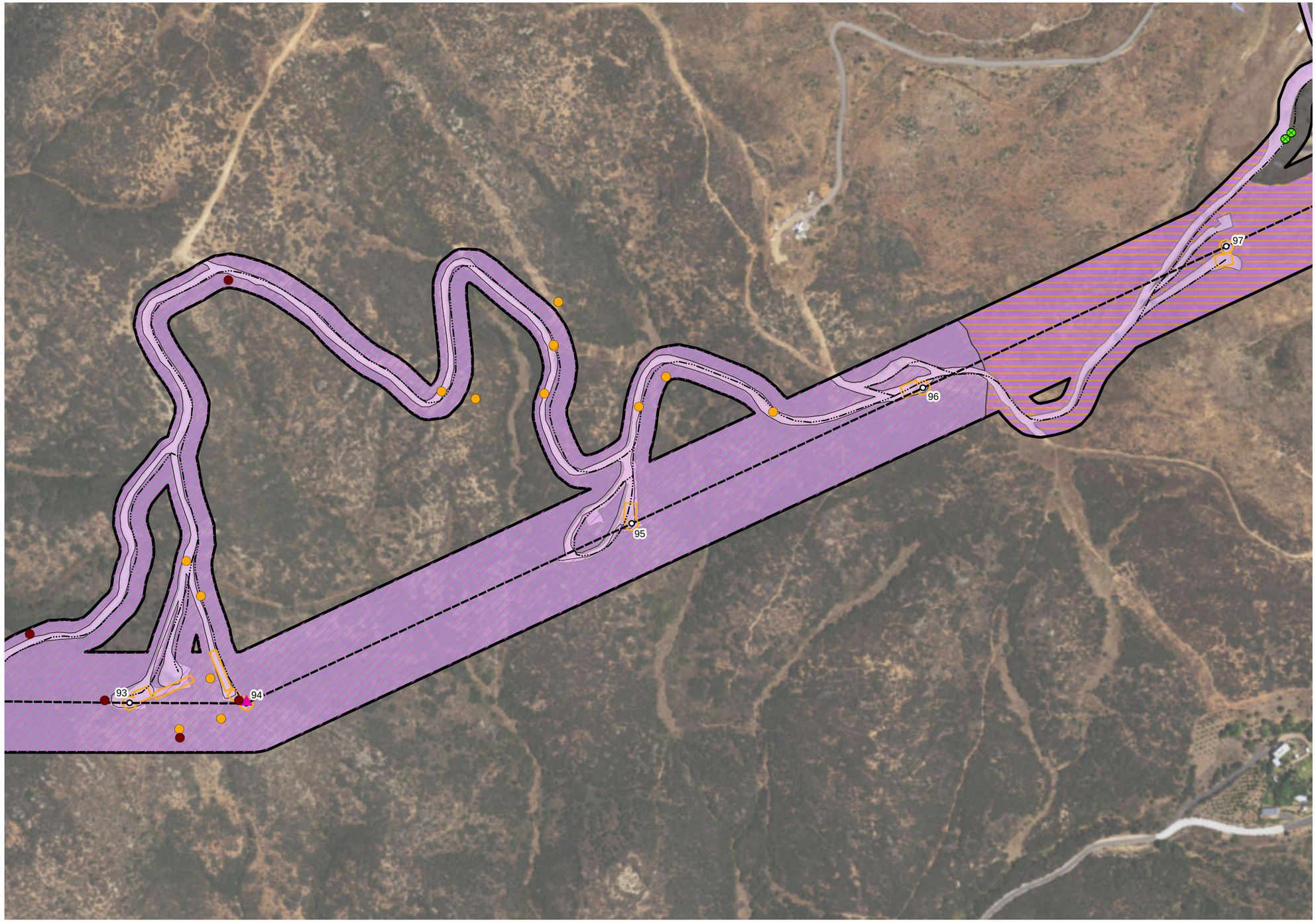
- Coastal California gnatcatcher *(Polioptila californica californica)*
- Southern California rufous-crowned sparrow *(Aimophila ruficeps canescens)*
- Wart-stemmed ceanothus *(Ceanothus verrucosus)*

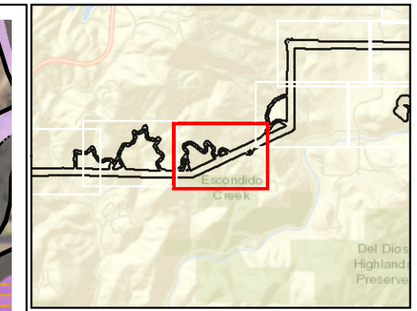
Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

N

Figure 4 TL6975 Sheet 13
Vegetation and Special-Status Species
SDG&E Tie-Line 6975 Project





Legend

- Survey Area
- Temporary Impacts
- Existing Structure
- Gate
- Transmission Line
- Access Road

Vegetation Communities

- Southern Maritime Chaparral
- Southern Maritime Chaparral-Burned
- Disturbed Habitat
- Urban/Developed

Wildlife

- Coastal California gnatcatcher *(Polioptila californica californica)*
- Southern California rufous-crowned sparrow *(Aimophila ruficeps canescens)*

Active Bird Nests

- Common raven *(Corvus corax)* nest
- Wart-stemmed ceanothus *(Ceanothus verrucosus)*

Source:ICF; KP; SDG&E; ESRI 2017

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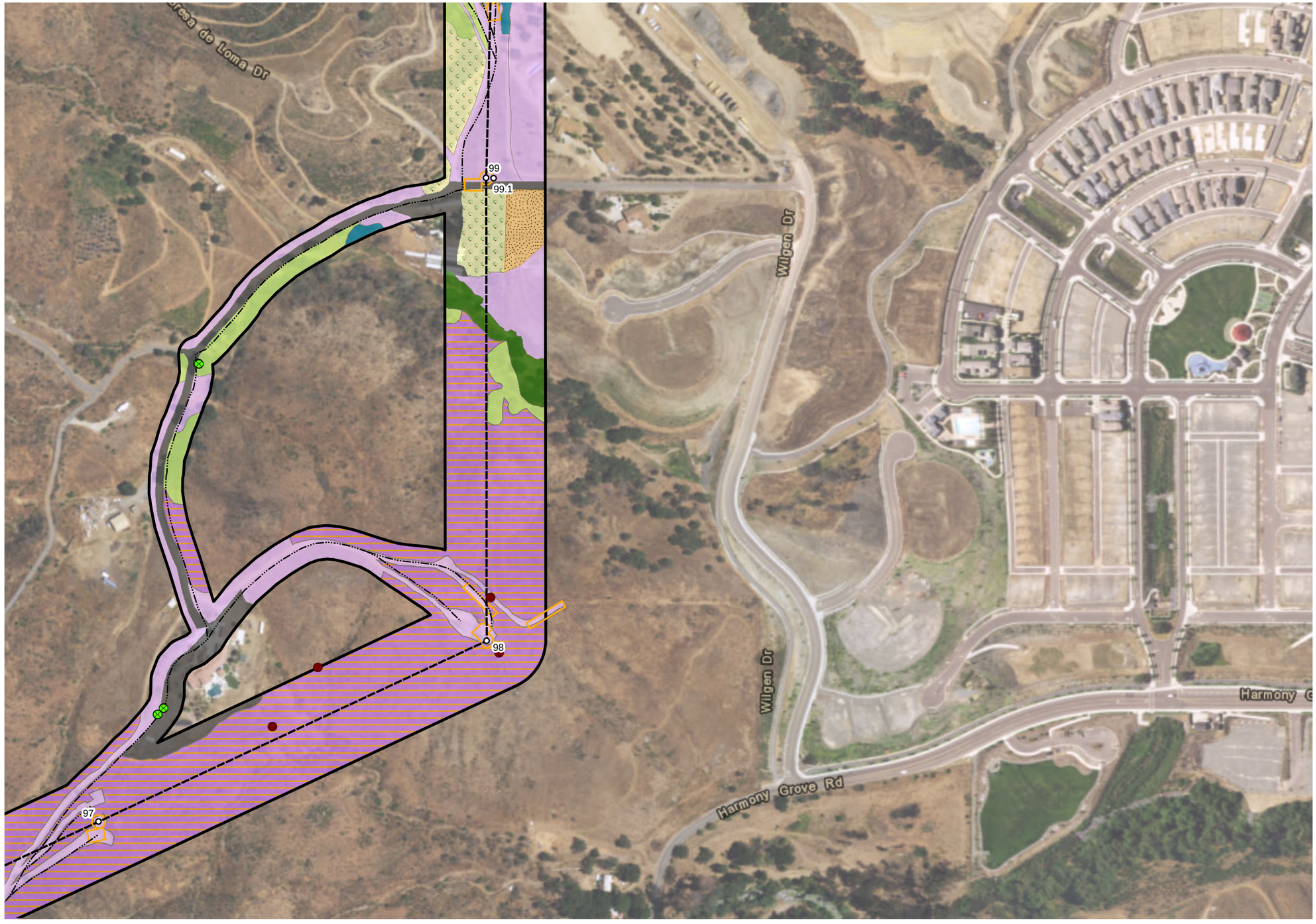
ICF

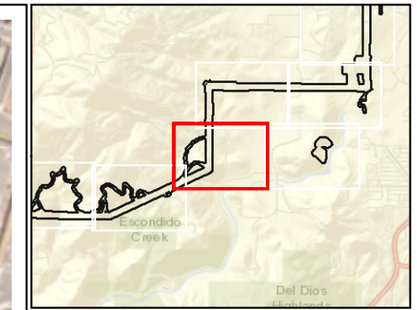
N

0 150 300 Feet

1:3,600

Figure 4 TL6975 Sheet 14
Vegetation and Special-Status Species
SDG&E Tie-Line 6975 Project





Legend

- Survey Area
- Temporary Impacts
- Existing Structure
- Gate
- Transmission Line
- Access Road

Vegetation Communities

- Diegan Coastal Sage Scrub-Disturbed
- Southern Maritime Chaparral-Burned
- Coast Live Oak Woodland
- Southern Coast Live Oak Riparian Forest
- Disturbed Habitat
- Urban/Developed
- Orchard/Vineyard
- Eucalyptus Woodland

Wildlife

- Southern California rufous-crowned sparrow *(Aimophila ruficeps canescens)*

Source:ICF; KP; SDG&E; ESRI 2017

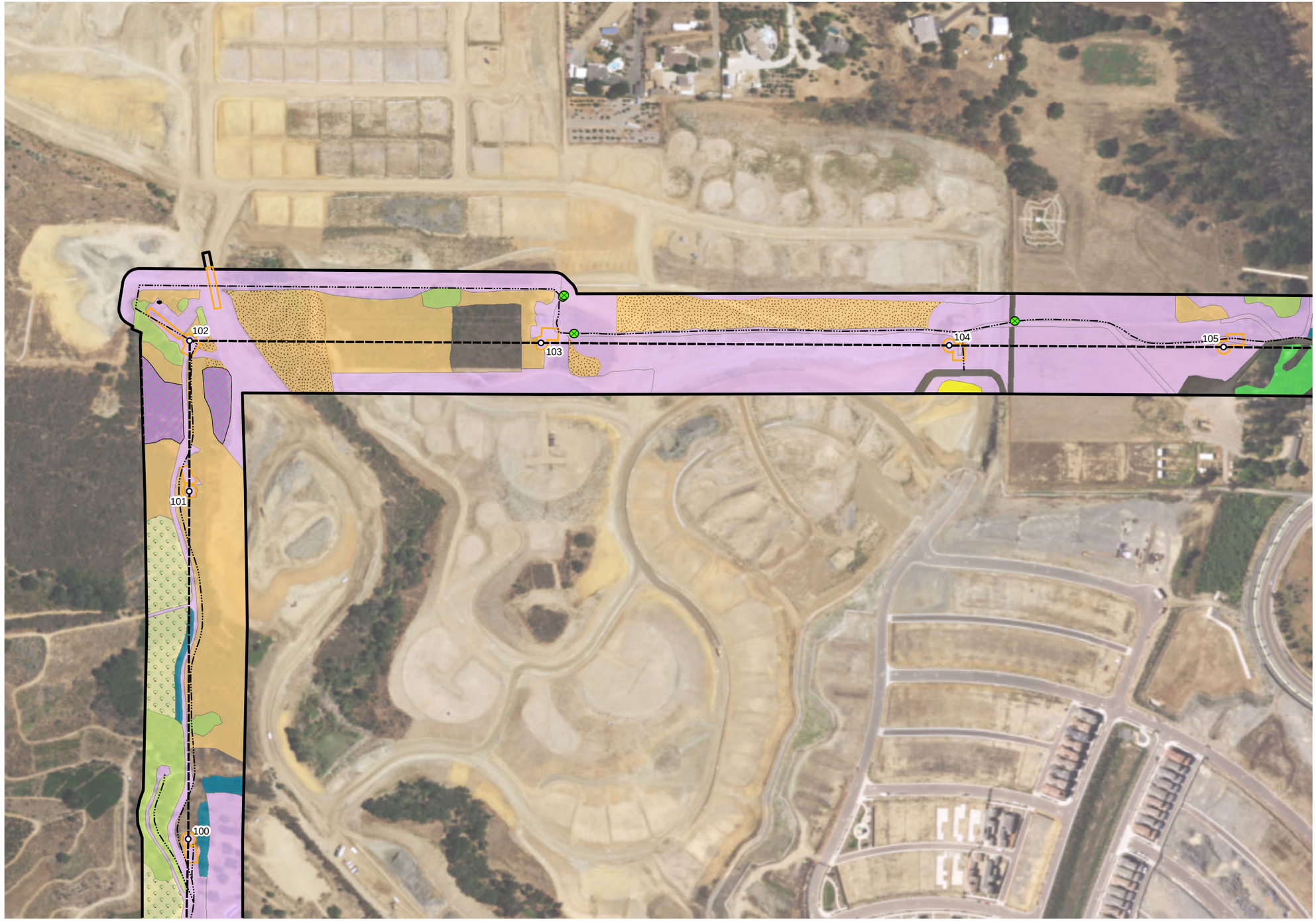
ICF

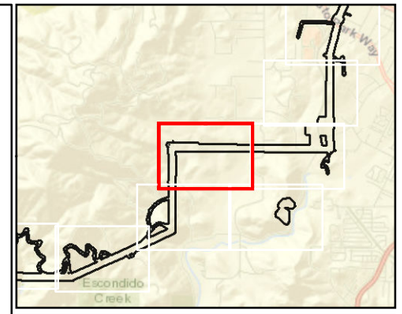
N

0 150 300 Feet

1:3,600

Figure 4 TL6975 Sheet 15
Vegetation and Special-Status Species
SDG&E Tie-Line 6975 Project





Legend

- Survey Area
- Temporary Impacts
- Existing Structure
- Gate
- Transmission Line
- Access Road

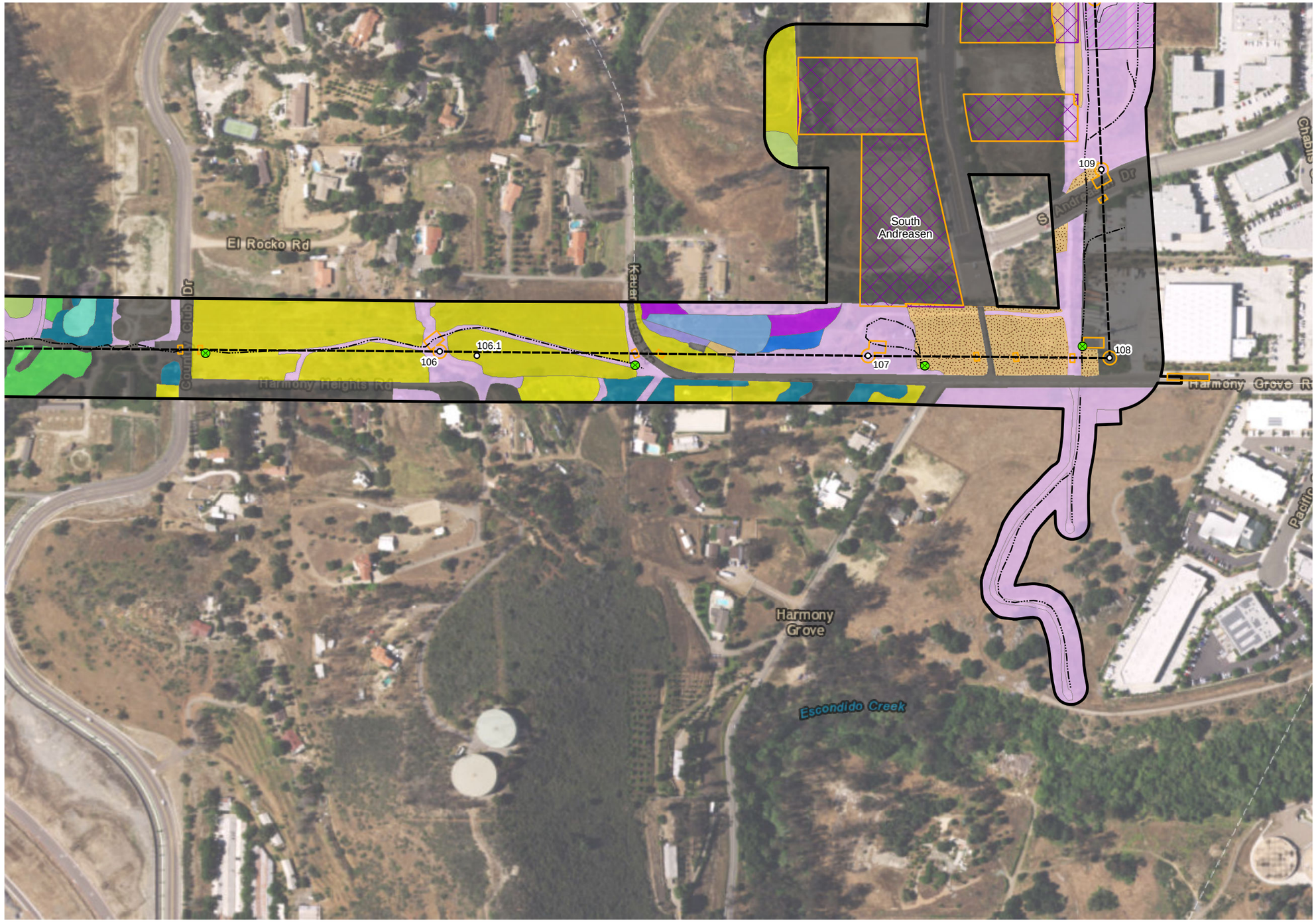
Vegetation Communities

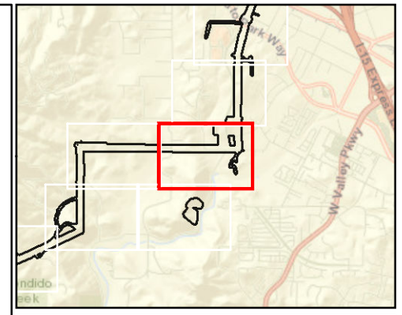
- Diegan Coastal Sage Scrub
- Diegan Coastal Sage Scrub-Disturbed
- Southern Maritime Chaparral
- Coast Live Oak Woodland
- Disturbed Habitat
- Urban/Developed
- Orchard/Vineyard
- Intensive Agriculture
- Non-Native Woodland
- Eucalyptus Woodland
- Wart-stemmed ceanothus *(Ceanothus verrucosus)*

Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

Figure 4 TL6975 Sheet 16
Vegetation and Special-Status Species
SDG&E Tie-Line 6975 Project





Legend

- Survey Area
- Temporary Impacts
- Staging Yard
- Existing Structure
- Gate
- Transmission Line
- Access Road

Vegetation Communities

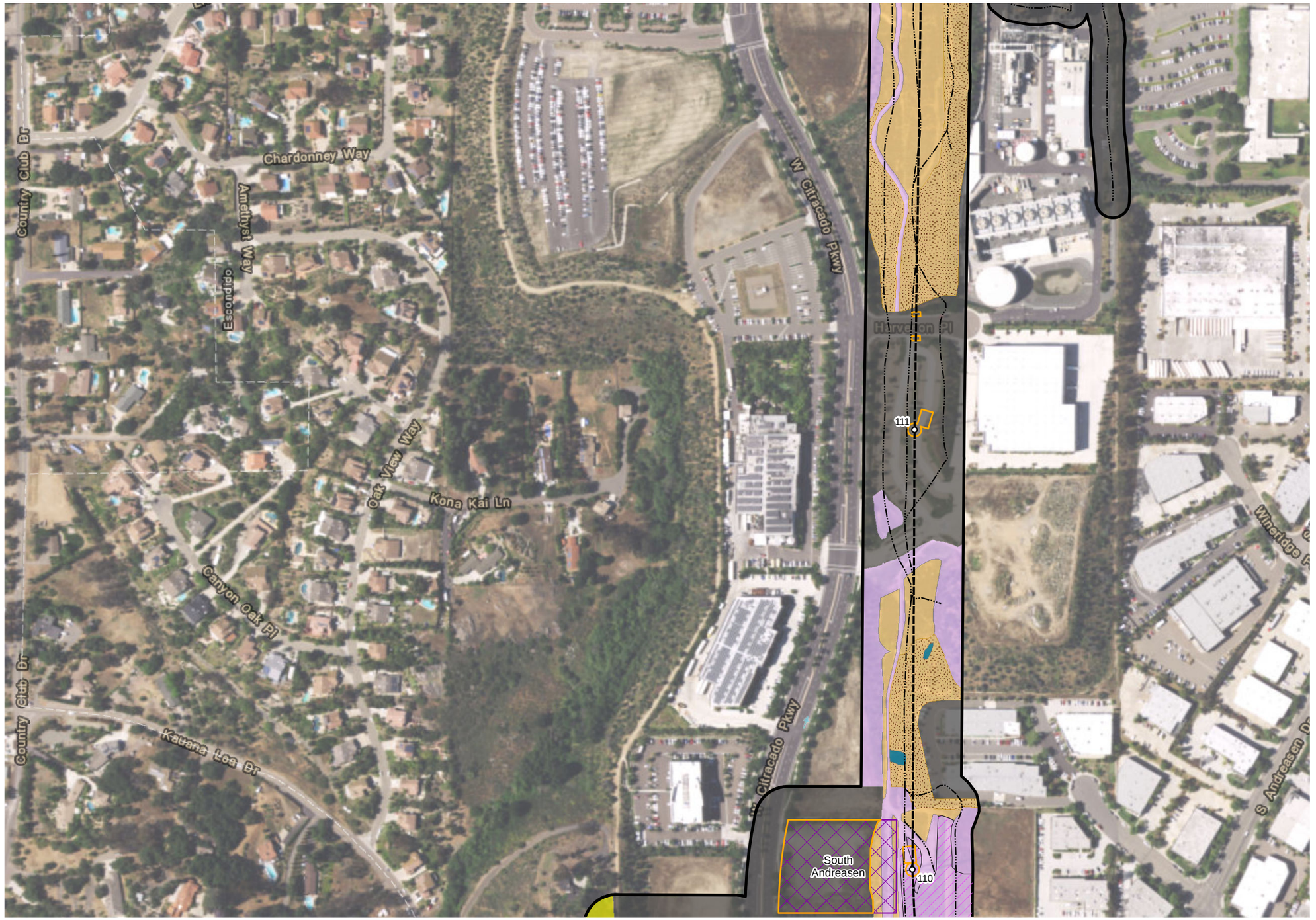
- Diegan Coastal Sage Scrub
- Diegan Coastal Sage Scrub-Disturbed
- Non-Native Grassland
- Coast Live Oak Woodland
- Coastal and Valley Freshwater Marsh
- Emergent Wetlands
- Mule-Fat Scrub
- Southern Willow Scrub
- Fresh Water
- Disturbed Habitat
- Urban/Developed
- Intensive Agriculture
- Non-Native Woodland
- Eucalyptus Woodland
- Wart-stemmed ceanothus *(Ceanothus verrucosus)*

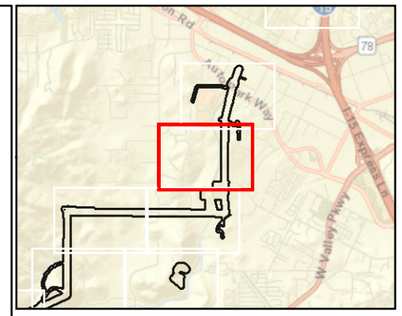
Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

N

Figure 4 TL6975 Sheet 17
Vegetation and Special-Status Species
SDG&E Tie-Line 6975 Project





Legend

- Survey Area
- Temporary Impacts
- Staging Yard
- Existing Structure
- Transmission Line
- Access Road

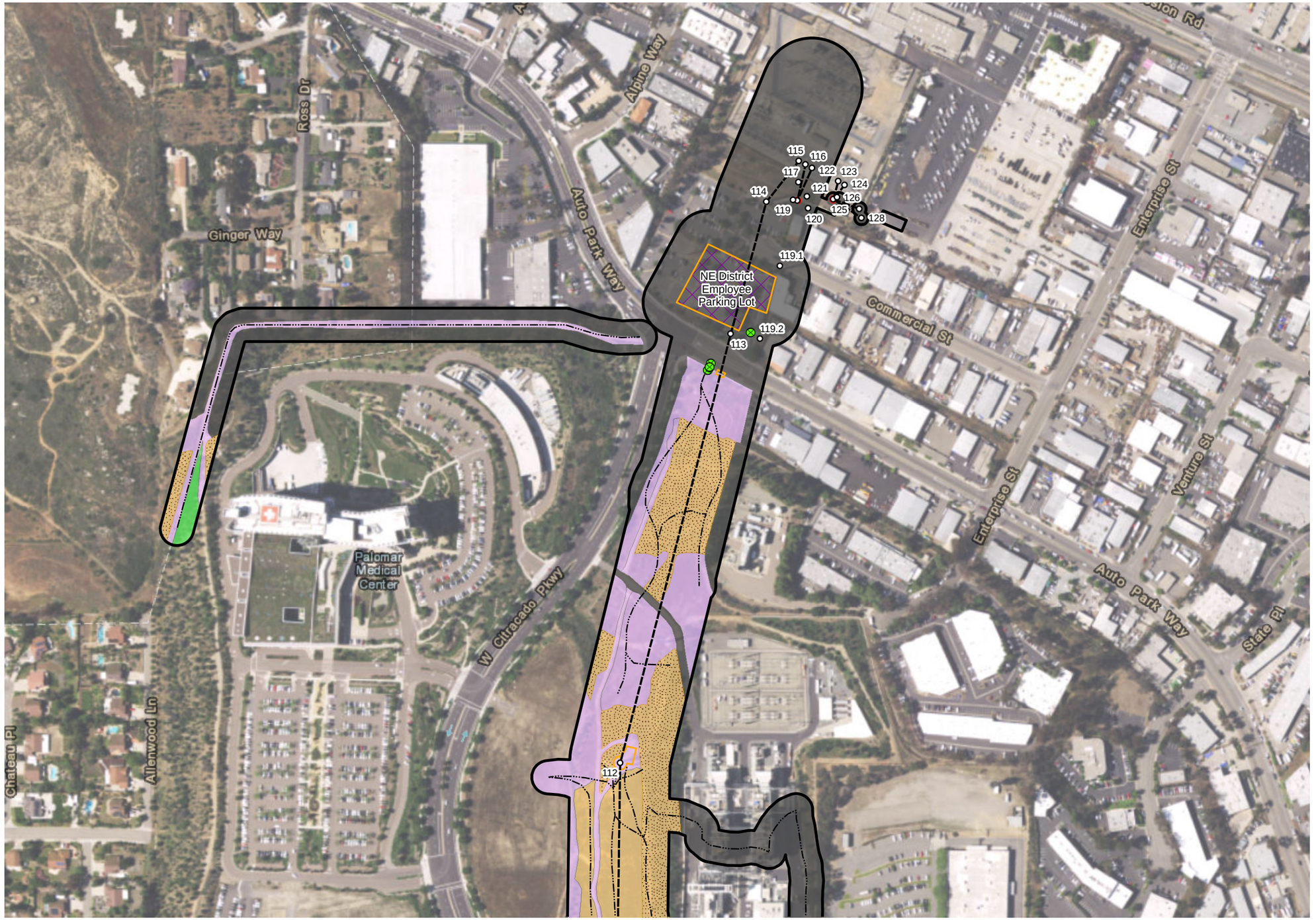
Vegetation Communities

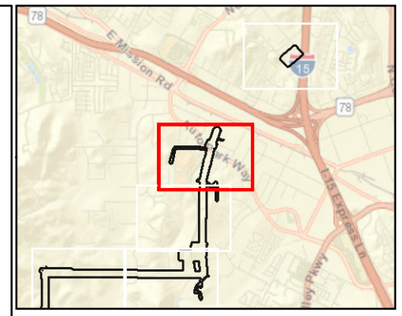
- Diegan Coastal Sage Scrub
- Diegan Coastal Sage Scrub-Disturbed
- Non-Native Grassland
- Disturbed Habitat
- Urban/Developed
- Eucalyptus Woodland
- Wart-stemmed ceanothus *(Ceanothus verrucosus)*

Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

Figure 4 TL6975 Sheet 18
Vegetation and Special-Status Species
SDG&E Tie-Line 6975 Project





Legend

- Survey Area
- Temporary Impacts
- Permanent Impacts
- Staging Yard
- Existing Structure
- Gate
- Transmission Line
- Access Road

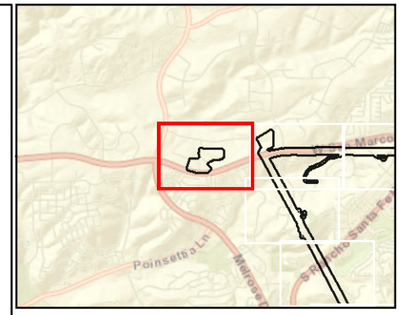
Vegetation Communities

- Diegan Coastal Sage Scrub
- Diegan Coastal Sage Scrub-Disturbed
- Disturbed Habitat
- Urban/Developed
- Non-Native Woodland

Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

Figure 4 TL6975 Sheet 19
Vegetation and Special-Status Species
SDG&E Tie-Line 6975 Project



Legend

- Survey Area
- Temporary Impacts
- Staging Yard
- Gate

Vegetation Communities

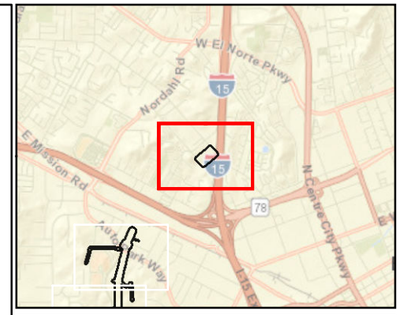
- Disturbed Habitat
- Urban/Developed

Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

N

Figure 4 Staging Yard Sheet 1
Vegetation and Special-Status Species
SDG&E Tie-Line 6975 Project



Legend

- Survey Area
- Temporary Impacts
- Staging Yard

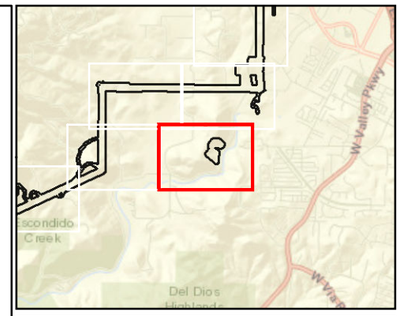
Vegetation Communities

- Non-Native Grassland
- Coast Live Oak Woodland
- Disturbed Habitat
- Urban/Developed
- Eucalyptus Woodland

Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

Figure 4 Staging Yard Sheet 2
Vegetation and Special-Status Species
SDG&E Tie-Line 6975 Project



Legend

- Survey Area
- Temporary Impacts
- Staging Yard

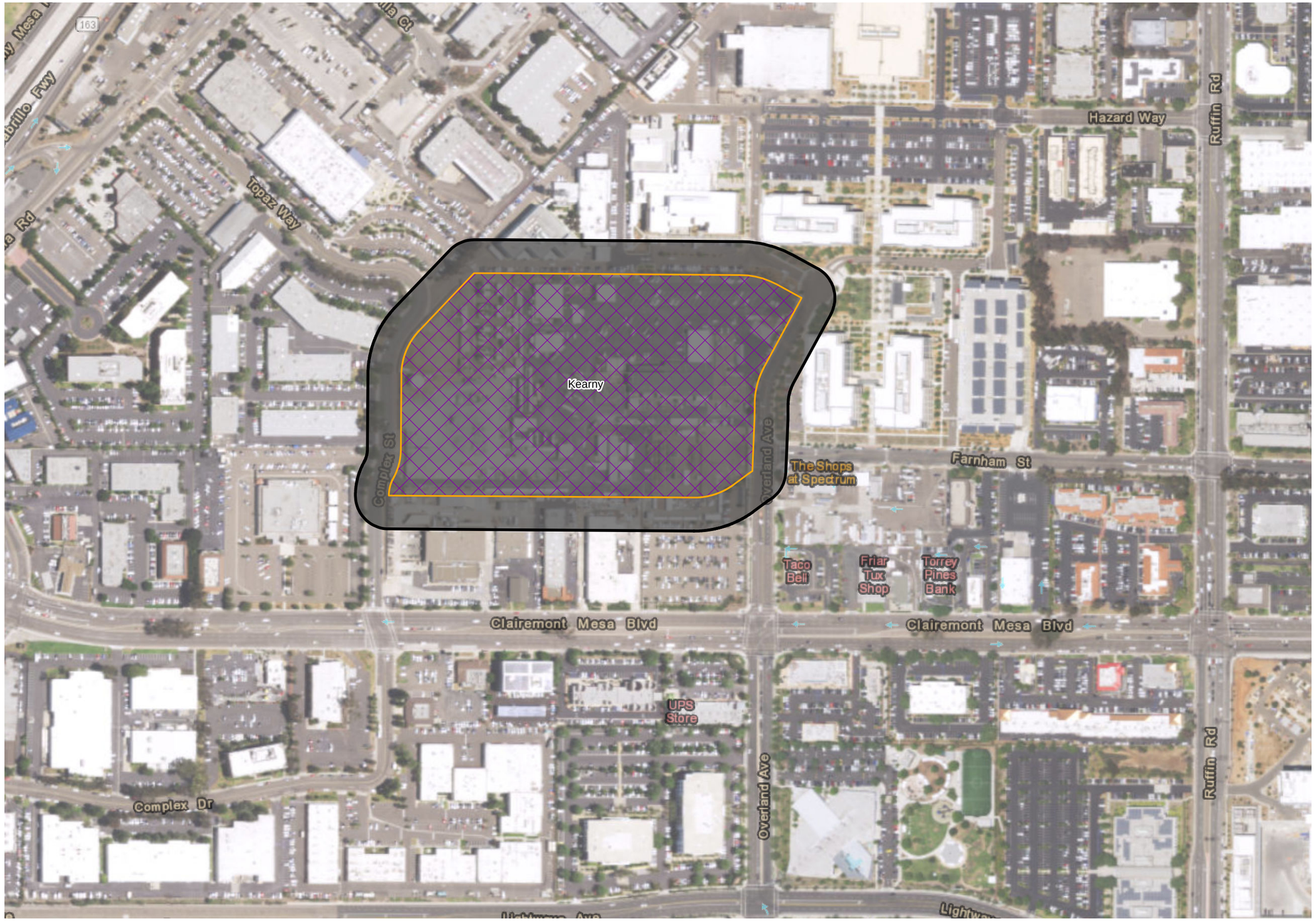
Vegetation Communities

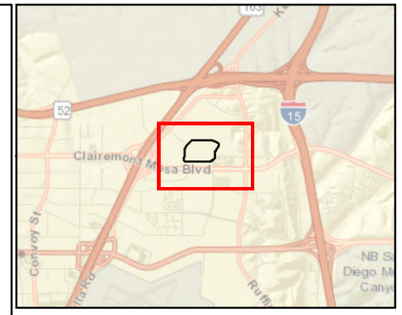
- Diegan Coastal Sage Scrub
- Urban/Developed

Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

Figure 4 Staging Yard Sheet 3
Vegetation and Special-Status Species
SDG&E Tie-Line 6975 Project





Legend

- Survey Area
- Temporary Impacts
- Staging Yard

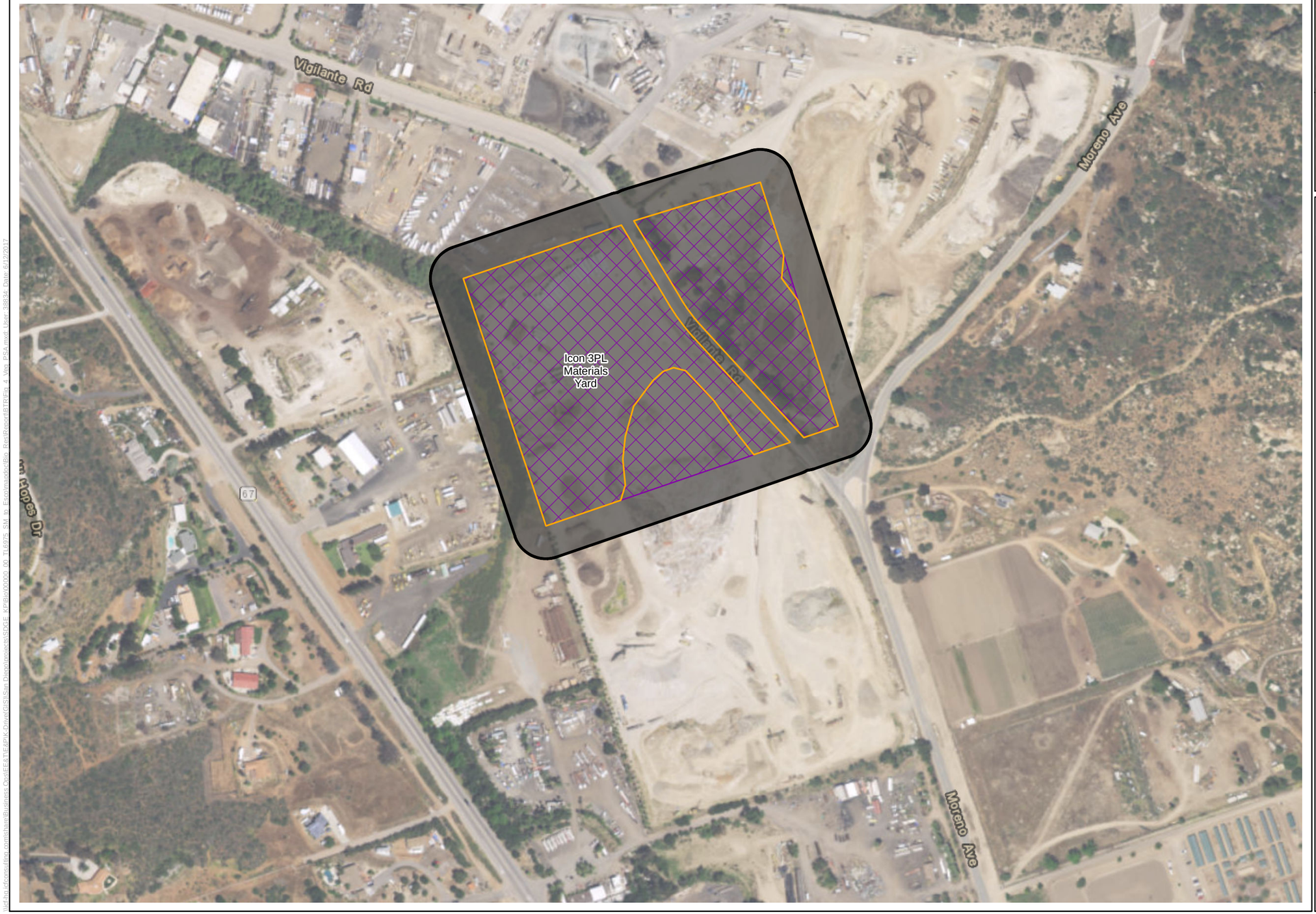
Vegetation Communities

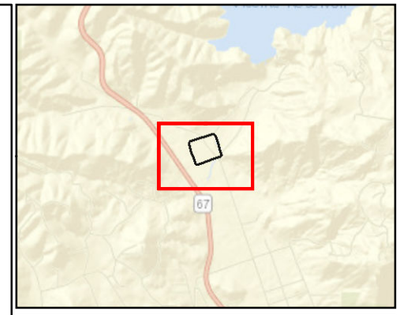
- Urban/Developed

Source:ICF; KP; SDG&E; ESRI 2017

0 150 300 Feet
1:3,600

Figure 4 Staging Yard Sheet 4
Vegetation and Special-Status Species
SDG&E Tie-Line 6975 Project





Legend

- Survey Area
- Temporary Impacts
- Staging Yard

Vegetation Communities

- Urban/Developed

Source:ICF; KP; SDG&E; ESRI 2017

ICF

N

0 150 300 Feet

1:3,600

Figure 4 Staging Yard Sheet 5
Vegetation and Special-Status Species
SDG&E Tie-Line 6975 Project