Submitted By:



# PROPONENT'S ENVIRONMENTAL ASSESSMENT

# (PART A)

# FOR THE SYCAMORE TO PEÑASQUITOS 230 KV TRANSMISSION LINE PROJECT

Application 14-04-XXX Volume II of II

April 2014

# **PROPONENT'S ENVIRONMENTAL ASSESSMENT** (Part A)

FOR THE

# Sycamore to Peñasquitos 230 kV Transmission Line Project

APPLICATION 14-04-XXX VOLUME II OF II

**APRIL 2014** 



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# List of Acronyms

Acronym	Definition	
3-D	Three-dimensional	
AAQS	Ambient air quality standards	
AB	Assembly Bill	
ACSR/AW	Aluminum Conductor Steel Reinforced on American Wire	
ACSS/AW	aluminum, steel support/alumoweld	
ADT	Average daily traffic	
AIA	Airport Influence Area	
ALUC	Airport Land Use Commission	
ALUCP	Miramar Airport Land Use Compatibility Plan	
Alquist-Priolo Act	Alquist-Priolo Special Studies Act of 1972	
amsl	Above mean sea level	
APE	Area of Potential Effect	
APLIC	Avian Power Line Interaction Committee	
APMs	Applicant Proposed Measures	
AR	Agricultural Residential	
ASM	ASM Affiliates	
ATCM	Airborne Diesel Air Toxic Measures	
BGEPA	Bald and Golden Eagle Protection Act	
BLM	United States Bureau of Land Management	
BMPs	Best Management Practices	
BMP Manual	SDG&E's Water Quality Construction BMPs Manual	
B.P.	Before present	
CAAQS	California Ambient Air Quality Standards	
CAISO	California Independent System Operator	
CalEEMod	California Emissions Estimation Model	
CalEPA	California Environmental Protection Agency	
Cal NAGPRA	California Native American Graves Protection and Repatriation Act	
Cal/OSHA	California Occupational Safety and Health Administration	

Acronym	Definition
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
САР	Congested Area Plan
CARB	California Air Resources Board
CBC	California Building Code
CBR	considered but rejected
CCA	California Coastal Act of 1972
CCAA	California Clean Air Act
CCC	California Coastal Commission
ССР	Comprehensive Conservation Plan
CCR	California Code of Regulations
C&D	Construction and Demolition
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CEQA Guidelines	California Environmental Quality Act Guidelines
CFR	Code of Federal Regulations
CH <sub>4</sub>	Methane
CHRIS	California Historic Resources Information System
CIP	Capital Improvement Program
C&D	Construction and Demolition
CLAMP	Committee for Land and Airspace Management Policy
СМР	Congestion Management Plan
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent level
CNPS	California Native Plant Society
СО	Carbon monoxide
CO <sub>2</sub>	Carbon dioxide

Acronym	Definition	
Construction General Permit	General Permit for Discharges of Stormwater Runoff Associated with Construction Activity	
County	County of San Diego	
CPCN	Certificate of Public Convenience and Necessity	
CPUC	California Public Utilities Commission	
CRHR	California Register of Historical Resources	
CRPR	County Rare Plant Register	
CUPAs	Certified Unified Program Agencies	
CVT	capacitor voltage transformer	
CWA	Clean Water Act	
CZMA	Coastal Zone Management Act of 1972	
CZMP	Coastal Zone Management Program	
dB	Decibels	
dBA	A weighted sound level	
DoD	Department of Defense	
DoT	Department of Transportation	
DTSC	Department of Toxic Substances Control	
EDR	Environmental Data Resources, Inc.	
EI	Environmental Intelligence, LLC	
EMS	Emergency Medical Services	
EPA	U.S. Environmental Protection Agency	
ESA	Endangered Species Act	
ESHAs	Environmentally Sensitive Habitat Areas	
F	Fahrenheit	
FAA	Federal Aviation Administration	
FCAA	Federal Clean Air Act	
FE	Federally Endangered	
FEMA	Federal Emergency Management Agency	
FERC	Federal Energy Regulatory Commission	
FHWA	Federal Highway Administration	

Acronym	Definition
FIRM	Flood Insurance Rate Maps
FMMP	Farmland Mapping and Monitoring Program
FT	Federally threatened
General Construction Permit	General Permit for Storm Water Discharges Associated with Construction Activity
GHG	Greenhouse Gas
GIMS	Geographic Information Management System
GIS	Geographic Information System
GPS	Global Positioning System
НА	hydrologic areas
НСР	Habitat Conservation Plan
HFC	Hydro fluorocarbons
HOV	High-occupancy vehicle
HP	horsepower
HSWA	Hazardous and Solid Waste Act
HU	Hydrologic Unit
HWCL	California Hazardous Waste Control Law
Hwy	Highway
ILAs	Incidental landing areas
INRMP	Integrated Natural Resources Management Plan
IPCC	Intergovernmental Panel on Climate Change
I-5	Interstate 5
I-15	Interstate 15
I-805	Interstate 805
JURMP	Jurisdictional Urban Runoff Management Plan
kcmil	thousand circular mills
KOPs	Key observation points
kV	Kilovolt
lbs	Pounds
LCP	Local Coastal Program

Acronym	Definition
LOS	Level of Service
LTPP	Long term procurement plan
LUP	Linear Underground/Overhead Project
MBTA	Migratory Bird Treaty Act of 1918
MCAS	Marine Corps Air Station
mgd	Million gallons per day
МНРА	Multi-Habitat Planning Areas
МЈНМР	San Diego County Multi-Jurisdictional Hazard Mitigation Plan
MLD	most likely descendant
MMT CO <sub>2</sub> e per year	million metric tons carbon dioxide equivalent per year.
МРН	Miles per hour
MRZ-2	Mineral Resource Zone 2
MSCP	Multiple Species Conservation Program
MTS	Metropolitan Transit System
MVA	megavolt-amperes
MWD	Metropolitan Water District of Southern California
Mw	Maximum earthquake magnitude
MW	Megawatts
NAAQS	National Ambient Air QualityStandards
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
NCFUA	North City Future Urbanizing Area
NEPA	National Environmental Policy Act
NERC	North American Electric Reliability Corporation
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act

Acronym	Definition	
NO <sub>2</sub>	Nitrogen Dioxide	
NOAA	National Oceanic and Atmospheric Administration	
NOT	Notice of Termination	
NO <sub>x</sub>	Nitrogen Oxide	
NPDES	National Pollutant Discharge Elimination System	
NPPA	California Native Plant Protection Act	
NRCS	Natural Resources Conservation Service	
NRHP	National Register of Historic Places	
NSA	Noise sensitive area	
NWI	National Wetlands Inventory	
O <sub>3</sub>	Ozone	
OES	California Office of Emergency Services	
OHP	California Office of Historic Preservation	
ONAC	Office of Noise Abatement and Control	
OPGW	Optical Ground Wire	
OSHA	Occupational Safety and Health Administration	
OTC	Once-Through Cooling	
PCR	Post-construction Report	
PEA	Proponent's Environmental Assessment	
PFCs	perfluorocarbons	
PM <sub>2.5</sub>	particulate matter less than 2.5 microns in diameter	
PM <sub>10</sub>	particulate matter less than 10 microns in diameter	
PPV	Peak particle velocity	
PRC	Public Resources Code	
PRPA	Paleontological Resources Preservation Act	
Proposed Project	SDG&E Sycamore Canyon and Peñasquitos Substations	
PRM	Petra Resource Management	
PSR	Pre-activity Study Report	
psi	pounds per square inch	

Acronym	Definition
PTOs	Participating Transmission Owners
PVC	polyvinyl chloride
RAQS	Regional Air Quality Strategy
RCRA	Resource Conservation and Recovery Act of 1976
RFP	Request for Proposal
ROGs	Reactive organic gases
RoWD	Report of waste discharge
ROW	right-of-way
RPS	Renewables Portfolio Standard
RWQCB	Regional Water Quality Control Board
SANDAG	San Diego Association of Governments
SARA	Superfund Amendments and Reauthorization Act
SCAQMD	South Coast Air Quality Management District
SCIC	South Coastal Information Center
SDAPCD	San Diego Air Pollution Control District
SDCRAA	San Diego County Regional Airport Authority
SDG&E	San Diego Gas & Electric Company
SDG&E QCB HCP	SDG&E Low-Effect Habitat Conservation Plan for the Quino Checkerspot Butterfly
SDG&E Subregional NCCP	<u>SDG&amp;E's</u> Subregional Natural Community Conservation Plan
SDNHM	San Diego Natural History Museum
SE	State Endangered
SEAP	Safety and Environmental Awareness Program
SEMS	California Standardized Emergency Management System
SF <sub>6</sub>	sulfur hexafluoride
SHMA	Seismic Hazards Mapping Act

Acronym	Definition
SIP	State Implementation Plan
SLR	Single lens reflex
SMARA	Surface Mining and Reclamation Act of 1975
SO <sub>2</sub>	Sulfer oxide
SONGS	San Onofre Nuclear Generation Station
SPCC	Spill Pollution Control and Countermeasure
SR-56	State Route 56
SSC	Species of special concern
State	State of California
Subarea Plan	MSCP Subarea Plan
SWIS	Solid Waste Information System
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resource Control Board
TAC	Toxic air containment
TL	Tie-Line
TMDLs	Total Maximum Daily Loads
U.S.	United States
USACE	U.S. Army Corps of Engineers
U.S.C.	United States Code
USDA	United States Department of Agricultural
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	U.S. Geological Survey
v/c	volume-to-capacity
VOCs	Volatile Organic compounds
WDRs	Waste discharge requirements
WECC	Western Electric Coordinating Council
XLPE	linked polyethelyne

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Appendix 1-A Summary of Agency Consultation

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# **1.0 PEA SUMMARY**

In accordance with the California Public Utilities Commission (CPUC) General Order 131-D, this Proponent's Environmental Assessment (PEA) has been prepared by San Diego Gas & Electric Company (SDG&E) to support SDG&E's application for a Certificate of Public Convenience and Necessity (CPCN) for the Sycamore to Peñasquitos 230 kilovolt (kV) Transmission Line Project (Proposed Project)<sup>1</sup>.

As discussed in more detail below, the overall purpose of the Proposed Project is to improve the reliability of the existing transmission system in the San Diego metropolitan area through the addition of a new 230 kV transmission line between the existing SDG&E Sycamore Canyon and Peñasquitos Substations. The Proposed Project involves the installation of a new 230 kV transmission line and the consolidation of two existing 69 kV power lines onto new double-circuit, steel structures that would replace existing, predominantly wood structures. The Proposed Project is located within existing SDG&E right-of-way (ROW), where SDG&E currently maintains and operates existing electric transmission, power, distribution and substation facilities, and City of San Diego franchise position.

This PEA Summary briefly describes the location and primary components of the Proposed Project, the Proposed Project need and range of alternatives considered, the PEA contents, the major conclusions of the PEA, SDG&E's public outreach and consultation efforts, areas of controversy, and issues to be resolved. As discussed below, in light of the existing environmental baseline and ordinary construction/operating restrictions and Applicant Proposed Measures (APMs) incorporated into the Proposed Project, no significant, unavoidable environmental impacts have been identified.

#### **1.1 PROJECT LOCATION**

Proposed Project components are located in San Diego County, California within the cities of San Diego and Poway, and on the extreme northern portion of Marine Corps Air Station (MCAS) Miramar. The Proposed Project location is discussed in more detail in Section 3, Proposed Project Description. The Proposed Project comprises the addition of one new 230 kV transmission line within existing SDG&E ROW and franchise position (city streets) between the existing SDG&E Sycamore Canyon and Peñasquitos Substations.

#### **1.2 PROPOSED PROJECT COMPONENTS**

The Proposed Project includes the following primary components and is generally divided into four discrete segments (Segment A through D) below:

<sup>&</sup>lt;sup>1</sup> The California Independent System Operator selected SDG&E's proposal to construct and operate the Proposed Project following their 2012-2013 Transmission Plan Competitive Solicitation Process (CAISO Sycamore-Penasquitos Project – Project Sponsor Selection Report [March 4, 2014]).

- Construction of new tubular steel 230 kV transmission poles and 138 kV power poles within existing SDG&E ROW between the existing Sycamore Canyon Substation and Carmel Valley Road (Segment A);
- Installation of a new 230 kV underground transmission line in Carmel Valley Road (franchise position) and new cable pole structures at each corridor end (Segment B);
- Installation of new 230 kV conductor on a vacated position of the existing 230 kV steel structures within existing SDG&E ROW between Carmel Valley Road and Peñasquitos Junction<sup>2</sup>, and Peñasquitos Junction and Peñasquitos Substation, respectively (Segments C and D);
- Consolidation, relocation, and reconductoring of existing 230 kV transmission lines and 138 and 69 kV power lines (Segment C and D); and
- Minor substation modifications at the Sycamore Canyon and Peñasquitos Substations (Segment A and D) and potential minor alterations at the San Luis Rey, Encina, Palomar Energy and Mission Substations.

#### 1.2.1 Segment A: Sycamore to Carmel Valley Road

Within existing SDG&E ROW, the existing 138 kV wood H-frame structures along an 8.31 mile segment between Sycamore Canyon Substation and Carmel Valley Road would be replaced with new tubular steel poles. Key elements of this component and associated work on this segment are:

- Installation of approximately 36 new double-circuit 230 kV and two 138 kV tubular steel poles and two new 230 kV tubular steel poles for TL 23041 connection at the Sycamore Canyon Substation;
- Removal of approximately 42 wood H-frame structures, two tubular steel poles, one double-circuit cable pole, and two single-circuit wood mono poles;
- Installation of new 230 kV conductor on new double-circuit 230 kV tubular steel poles;
- Relocation of existing Tie-Line (TL) 13820 and TL 13825<sup>3</sup> to second position on the new double-circuit 230 kV tubular steel poles;
- Installation of existing TL 13820 in an underground position as it enters the Sycamore Canyon Substation; and
- Installation of new fiber optic Optical Ground Wire (OPGW) along the entire alignment.

 $<sup>^2</sup>$  The Peñasquitos Junction refers to confluence of existing electric power and transmission lines where existing power lines TL 13804, TL 6920, and TL 675 turn from a north/south alignment and travel west into the Peñasquitos Substation.

<sup>&</sup>lt;sup>3</sup> TL 13825 was recently renumbered to 13811 independent of the Proposed Project. All references to TL 13825 refer to TL 13811.

#### **1.2.2** Segment B: New Underground Transmission Line

A new 2.84 mile underground transmission line (underground cable) that would include both trenching and trenchless techniques would be constructed within Carmel Valley Road utilizing an existing franchise position. Other key elements of this segment are:

- Installation of approximately ten access splice vaults; and
- Construction of two new 230 kV tubular steel cable pole structures, one at either end of Segment B to transition between the above ground and below ground segments.

#### 1.2.3 Segment C: New 230 kV Conductor on Vacated Position

The new 230 kV conductor would be installed on the vacated position of existing double-circuit 230 kV steel structures (10 steel lattice towers) along a 2.19 mile segment within existing SDG&E ROW between Carmel Valley Road and the Peñasquitos Junction. Additional key elements along this segment include:

- Replacement of an existing double circuit 230 kV steel lattice tower with a new doublecircuit tubular steel pole at the Peñasquitos Junction;
- Reconductoring and bundling of existing TL 23001 and TL 23004 on the east side of the existing structures along Proposed Project Segment C<sup>4</sup>; and
- Removal of existing shield wire from steel lattice towers and installation of OPGW.

#### **1.2.4** Segment D: Consolidation, Relocation and Reconductoring of Transmission Lines

Within existing SDG&E ROW, the new 230 kV conductor would be installed on the vacated position of existing double-circuit 230 kV steel structures that include 15 steel lattice towers and one tubular steel pole along a 3.34 mile segment between the Peñasquitos Junction and the Peñasquitos Substation. Additional key elements along this segment are:

- Installation of approximately 17 new 69 kV, double circuit tubular steel poles;
- Removal of 16 existing 69 kV wood H-frame structures and five wood monopole structures that currently support TL 675 and TL 6906;
- Consolidation of existing 69 kV power lines (TL 675 and TL 6906) onto new tubular steel poles;
- Replace two existing 69 kV single circuit cable poles with single circuit tubular steel cable poles;
- Relocation of one existing 138 kV power line (TL 13804) from north side of existing steel lattice towers to south side of existing steel lattice towers; and

<sup>&</sup>lt;sup>4</sup> TL 23001 and TL 23004 would be consolidated into one bundled 230 kV circuit designated TL 23004.

• Replacement of existing shield wire with new OPGW on existing 230 kV steel lattice towers.

#### **1.2.5 Distribution Underbuild Work**

Five existing 138 kV wood H-frame structures located on the northern end of Segment A currently have distribution underbuild. These structures would be replaced with new tubular steel double circuit 230 kV structures, while the distribution underbuild portion of the existing wood H-frame structures would remain in place as the structures would be cut-off and removed above existing distribution circuits.

#### **1.2.6** Substation Work

Work would be required at both the Sycamore Canyon and Peñasquitos Substations to allow for the new 230 kV transmission line. The required work at the substations would be relatively minor and includes alterations to substation and bay arrangements and the installation of capacitor voltage transformers (CVT), circuit breakers and disconnects at both existing substations. Construction of two new 69 kV tubular steel cable poles would replace existing wood 69 kV cable poles located immediately outside of the Peñasquitos Substation, and two new 230 kV tubular steel poles would be required within and immediately adjacent to the Sycamore Canyon Substation to accommodate the transferring of existing 230 kV transmission lines (TL 23041). Additionally, minor substation alterations may be required at surrounding existing substations (see Section 3.3.5 for more details).

#### **1.3 PROJECT NEED AND RANGE OF ALTERNATIVES CONSIDERED**

The Proposed Project has been developed by SDG&E in order to achieve the following project objectives (see Section 2.0, Proposed Project Purpose and Need):

- 1. Meet the Functional Specifications identified by California Independent System Operator's (CAISO) in its 2012-2013 Transmission Plan for a new 230 kV transmission line from the existing Sycamore Canyon Substation to the existing Peñasquitos Substation. This accomplishes the following sub-objectives for the SDG&E bulk power system:
  - a. Ensure that the SDG&E bulk electric system continues to meet North American Electric Reliability Corporation (NERC), Western Electric Coordinating Council (WECC), and CAISO reliability criteria;
  - b. Promote compliance with State of California policy goals with regards to renewable energy integration and Once-Through Cooling (OTC) retirement;
  - c. Reliably and economically meet forecasted load growth for the San Diego metropolitan area; and
  - d. Deliver imported energy more efficiently to the San Diego load center.
- 2. Locate the Proposed Project's facilities within existing transmission and power line corridors, SDG&E ROW, utility owned property, and City of San Diego franchise ROW.

Section 5.2, Description of Project Alternatives to Minimize Significant Effects, outlines ten alternatives to the Proposed Project, including a no project alternative and various alternative transmission line alignments. Many of these alternatives could meet the Proposed Project Objectives; however, they would result in higher cost, increased and/or more severe adverse effects, and increased regulatory approval requirements.

#### 1.4 PROPONENT'S ENVIRONMENTAL ASSESSMENT CONTENTS

#### 1.4.1 PEA Part A

Part A of this PEA was prepared in accordance with the PEA Checklist issued by the CPUC and is divided into five sections.

Section 1 - PEA Summary. Section 1 discusses the conclusions and content of the PEA sections, and contains information on SDG&E's coordination efforts.

Section 2 - Proposed Project Purpose and Need. Section 2 outlines the purpose and need for the Proposed Project, including the Proposed Project objectives.

Section 3 - Proposed Project Description. Section 3 describes the whole of the Proposed Project, including construction, operation, and maintenance. The Project Description includes a detailed description of construction methods, construction schedule, existing facilities, proposed facilities, and anticipated permit requirements.

Section 4 - Environmental Impact Assessment. Section 4 includes a discussion of the existing conditions and potential and anticipated impacts for the following resource areas:

- Aesthetics
- Agricultural and Forestry Resources
- Air Quality and Greenhouse Gases
- Biological Resources
- Cultural Resources
- Geology, Soils, and Mineral Resources
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Utilities and Service Systems

Section 4 also includes an assessment of potential cumulative impacts that could occur as a result of impacts from the Proposed Project contributing to cumulatively considerable adverse effects when analyzed with respect to other reasonably foreseeable projects.

Section 5 - Detailed Discussion of Significant Environmental Impacts. Section 5 includes a discussion of why the Proposed Project would not have any growth inducing impacts as well as an evaluation of the alternatives to the Proposed Project.

Throughout the PEA sections and appendices, SDG&E has provided specific information to address the items outlined within the CPUC's PEA Checklist for Transmission Line, Power Line and Substation Projects (PEA Checklist). Table 1-1, PEA Checklist Key Table, provides the specific location within the PEA and appendices of all data provided to meet the requirements of the PEA Checklist.

#### **1.4.2 PEA Part B (Technical Appendices)**

Part B of this PEA contains technical appendices in support of Sections 1 through 5 as well as other items required by the CPUC PEA Checklist and General Order 131-D. Specifically, Part B of the PEA includes the following documents:

- Appendix 1-A: Summary of Agency Consultation
- Appendix 3-A: Pole Detail Table
- Appendix 3-B: Detailed Route Map
- Appendix 3-C: Typical Structure Diagrams
- Appendix 4.3-A: Air Quality Construction Emissions
- Appendix 4.4-A: Biological Technical Report
- Appendix 4.5-A: Archaeological Survey Report (Appendices A, B, C, and E are Confidential and have been omitted)
- Appendix 4.5-B: Paleontological Resources Record Search
- Appendix 4.7-A: Environmental Data Resources, Inc. (EDR) Database Search Results

# **1.4.3** Other PEA Requirements

A map showing all transmission lines within one mile of the Proposed Project as indicated within the CPUC PEA Checklist and/or CPUC General Order 131-D has been provided as Appendix F of the CPCN (Volume I of II).

# 1.5 MAJOR PEA CONCLUSIONS

As discussed throughout the PEA, the Proposed Project involves the addition of one new 230 kV transmission line between the existing SDG&E Sycamore Canyon and Peñasquitos Substations. The new transmission line would be located on new and existing structures located entirely within currently existing SDG&E ROW and City of San Diego franchise position. The existing electric transmission, distribution and substation facilities constitute the existing setting and baseline from which the potential impacts of the Proposed Project were analyzed.

#### **1.5.1** Resource Areas with No Impact or Less than Significant Impacts

The PEA analyzes the potential environmental impacts associated with construction, operation and maintenance of the Proposed Project. Eleven resource areas would not have environmental impacts or would experience only less than significant impacts due to the Proposed Project. The resource areas are:

- Aesthetics,
- Agricultural and Forestry Resources,
- Air Quality and Greenhouse Gases,
- Geology, Soils, and Mineral Resources,
- Hazards and Hazardous Materials,
- Hydrology and Water Quality,
- Land Use and Planning,
- Noise,
- Population and Housing,
- Recreation, and
- Utilities and Service Systems.

#### 1.5.2 Resource Areas Requiring Applicant Proposed Measures

In addition, the following five resource areas could result in potentially significant impacts that can be reduced to a level less than significant with the incorporation of APMs (See Table 3-15, Applicant Proposed Measures by Resource Area, and Table 3-16, Applicant Proposed Measures):

- Biological Resources,
- Cultural Resources,
- Public Services,
- Transportation and Traffic, and
- Cumulative Impacts.

The impacts that would be less than significant with incorporation of APMs are discussed below, by resource area.

#### 1.5.2.1 <u>Biological Resources</u>

While not anticipated to be significant, potential impacts relating to biological resources would be avoided and minimized through implementation of project design features and ordinary construction/operating restrictions, as well as APM BIO-1 such that impacts would remain less than significant.
# 1.5.2.2 <u>Cultural Resources</u>

Potential impacts relating to cultural and paleontological resources would be reduced to a level less than significant through implementation project design features and ordinary construction/operating restrictions as well as APMs CUL-1 through CUL-8.

# 1.5.2.3 Public Services

Potential impacts relating to disruption of existing parks and recreational facilities during construction of the Proposed Project would be reduced to a level less than significant through implementation of project design features and ordinary construction/operating restrictions as well as APMs PS-1 through PS-5.

# **1.5.2.4** <u>Transportation and Traffic</u>

Potential impacts related to construction of the Proposed Project resulting in inadequate emergency access would be reduced to a level less than significant through implementation of project design features and ordinary construction/operating restrictions as well as APM TR-1.

# 1.5.2.5 <u>Cumulative Impacts</u>

Potential impacts related to construction of the Proposed Project conflicting with construction of other SDG&E projects or San Diego Capital Improvement Program (CIP) projects would be reduced to a level less than significant through implementation of project design features and ordinary construction/operating restrictions as well as APMs CUM-1 and CUM-2.

# **1.5.3** Significant, Unavoidable Impacts

No significant, unavoidable adverse impacts were identified during the preparation of the PEA (refer to PEA Sections 4.1 through 4.16).

# **1.6 PUBLIC OUTREACH EFFORTS**

Due to the nature of the CAISO's 2012-2013 Transmission Planning Process Competitive Solicitation for the construction and operation of a new 230 kV transmission line connecting to the existing Sycamore Canyon and Peñasquitos Substations, SDG&E has not yet conducted outreach to the general public. SDG&E did not want to engage in discourse with the public prior to the CAISO selecting the Project Sponsor for the new 230 kV transmission line. However, SDG&E has communicated with local elected officials, and other governmental, cultural and federal agencies as further described in Section 1.7, Inter-Agency and other Consultations.

SDG&E created a comprehensive Public Education and Outreach Plan to support and enhance the Proposed Project goals by ensuring information about all aspects of the approval phase and construction activities are proactively and accurately disseminated on a timely and regular basis to residents, business owners and other stakeholders along the proposed route. SDG&E submitted this Plan as part of its proposal to the CAISO.

# 1.7 INTER-AGENCY AND OTHER CONSULTATIONS

SDG&E proactively contacted local elected officials, and other governmental, cultural and federal agencies to discuss the CAISO 2012-2013 Transmission Planning Process Competitive Solicitation process and SDG&E's Proposed Project. SDG&E emailed letters and/or met with representatives from the City of San Diego, City of Poway, the County of San Diego, Native American Heritage Commission (NAHC) and MCAS Miramar. Specifically, SDG&E contacted the following local agencies that have the potential to be impacted by SDG&E's Proposed Project:

- City of San Diego Mayor's Office (Former Interim Mayor Todd Gloria and Newly Elected Mayor Kevin Faulconer)
- City Council District 1 (Council Member Sherri Lightner)
- City Council District 5 (Council Member Mark Kersey)
- City Council District 7 (Council Member Scott Sherman)
- City of San Diego Development Services
- City of San Diego Public Works
- City of Poway Mayor's Office
- City of Poway City Manager's Office (Mayor Don Higginson)
- City of Poway Public Works
- City of Poway Development Services

In addition, SDG&E also contacted the following State of California Senate and Assembly and United States Congressional staff:

- California State Senate District 38 (Senator Mark Wyland)
- California State Senate District 39 (Assembly Member Marty Block)
- California State Assembly District 77 (Assembly Member Brian Maienshein)
- United States Congress District 52 (Congressman Scott Peters)

Finally, SDG&E contacted MCAS Miramar and NAHC staff concerning the Proposed Project.

A summary of SDG&E's interaction with the above mentioned agencies and representatives, including comment letters acknowledging conference calls and/or meetings, are included within Appendix 1-A.

# 1.7.1 Project Support

The CAISO reviewed proposals from four perspective bidders to construct a new 230 kV transmission line between the existing Sycamore Canyon and Peñasquitos Substations. The CAISO conducted a detailed review of these proposals, including a comparative analysis of the four proposed projects. On March 4, 2014, the CAISO officially selected the Proposed Project. Of particular note, the CAISO determined that the Proposed Project is better with respect to all six of the following key selection factors specified in the CAISO's April 15, 2013 presentation to stakeholders, entitled Transmission Planning Process Phase 3 Competitive Solicitation:

- 1. Overall capability to finance, license, construct, operate, and maintain the facility (tariff section 24.5.2.4[a]).
- 2. Possession of existing ROW that could contribute to the project (24.5.2.4[b]).
- 3. Experience in acquiring ROW to facilitate approval and construction of the project (24.5.2.4[c]).
- 4. Proposed schedule and demonstrated ability to meet that schedule (24.5.2.4[d]).
- 5. Environmental permitting and engineering qualifications and experience (24.5.2.4[f]).
- 6. Demonstrated cost containment capability (tariff section 24.5.2.4[j]).

To date SDG&E has not received any written statements of support to the Proposed Project from local agencies. SDG&E will continue to consult with local agencies and stakeholders and will forward any written statements of project support received.

# 1.7.2 Project Opposition

To date, SDG&E has not received any written statements of opposition to the Proposed Project. SDG&E will continue to consult with local agencies and stakeholders and will forward any written statements of opposition received.

# 1.8 AREAS OF CONTROVERSY

To date, SDG&E has not identified any areas of controversy regarding the Proposed Project.

# **1.9 ISSUES TO BE RESOLVED**

To date, no substantial issues remain unresolved.

	•	
Location in PEA Checklist	Checklist Item	Location within PEA
Chapter 1: PEA Sum	mary	
	Include major conclusions of the PEA.	Section 1.5 – Major PEA Conclusions
	List any areas of controversy.	Section 1.8 – Areas of Controversy
	Identify any major issues that must be resolved, including the choice among reasonably feasible alternatives and mitigation measures, if any.	Section 1.9 – Issues to be Resolved
	Include a description of inter-agency coordination if any.	Section 1.7 – Inter-Agency and Other Consultations
	Include a description of public outreach efforts, if any.	Section 1.6 – Public Outreach Efforts
		Appendix 1-A: Summary of Agency Consultation
Chapter 2: Project Pu	irpose and Need	
2.1 Overview	Include an analysis of Proposed Project objectives and purpose and need that is sufficiently detailed so that the Commission can independently evaluate the Proposed Project need and benefits in order to accurately consider them in light of the potential environmental impacts.	Section 2.0 – Proposed Project Purpose and Need
	Explain the objective(s) and/or purpose and need for implementing the Proposed Project.	Section 2.0 – Proposed Project Purpose and Need
2.2 Project Objectives	Include an analysis of the reason why attainment of these objectives is necessary or desirable. Such analysis must be sufficiently detailed to inform the Commission in its independent formulation of Proposed Project objectives which will aid any appropriate CEQA alternatives screening process.	Section 2.0 – Proposed Project Purpose and Need

# Table 1-1: PEA Checklist Key Table

Table 1-1 (cont.): PEA Checklist Key Table		
Location in PEA Checklist	Checklist Item	Location within PEA
Chapter 3: Project D	escription	
	Identify geographical location: County, City (provide	Section 3.2 – Proposed Project Location, Regional Context, and Regional Electric System
	Proposed Project location map[s]).	Figure 3-1: Project Vicinity Map
		Figure 3-4: Project Overview Map
	Provide a general description of land uses within the Proposed Project site (e.g., residential, commercial, agricultural, recreation, vineyards, farms, open space, number of stream crossings, etc.).	Section 3.2 – Proposed Project Location, Regional Context, and Regional Electric System
3.1 Project Location		Section 4.9 – Land Use and Planning
		Figure 4.9-1: Designated and Existing Land Uses in the Proposed Project Area
	Determine whether the Proposed Project is located within an existing property owned by the Applicant, traverses existing ROWs, or requires new ROWs. Provide the approximate area of the property or the length of the Proposed Project that is in an existing ROW or which requires new ROWs.	Section 3.2 – Proposed Project Location, Regional Context, and Regional Electric System Section 3.6 – Permanent Land and Right-of-Way Requirements
3.2 Existing System	Describe the local system to which the Proposed Project relates.	Section 2.0 – Proposed Project Purpose and Need Section 3.2 – Proposed Project Location, Regional Context, and Regional Electric System
	Provide a schematic diagram and map of the existing system.	Figure 3-2: Existing System One-Line Diagram Appendix 3-B: Detailed Route Map
	Provide a schematic diagram that illustrates the system as it would be configured with the implementation of the Proposed Project.	Figure 3-3: Proposed System One-Line Diagram Figure 3-4: Project Overview Map

Table 1-1 (cont.): PEA Checklist Key Table		
Location in PEA Checklist	Checklist Item	Location within PEA
	Describe the Proposed Project. Is it an upgrade, a new line, new substations, etc.?	Section 3.1 – Proposed Project Overview Section 3.3 – Proposed Project Facilities
	Describe how the Proposed Project fits into the regional system. Does it create a loop for reliability, etc.?	Section 2.0 – Proposed Project Purpose and Need Section 3.1 – Proposed Project Overview Section 3.2 – Proposed Project Location, Regional Context, and Regional Electric System
3.4 Proposed Project	Describe all reasonably foreseeable future phases, or other reasonably foreseeable consequences of the Proposed Project.	Section 3.3 – Proposed Project Facilities
	Provide the capacity increase in megawatts (MW). If the Proposed Project does not increase capacity, state that.	Section 3. 3 – Proposed Project Facilities
	Provide GIS (or equivalent) data layers for the Proposed Project preliminary engineering, including estimated locations of all physical components of the Proposed Project, as well as those related to construction.	GIS Data is Confidential and not included
3.5 Project Components 3.5.1 Transmission Line	Describe what type of line exists and what type of line is proposed.	Section 3. 3 – Proposed Project Facilities Section 3.2 – Proposed Project Location, Regional Context, and Regional Electric System
	Identify the length of the upgraded alignment, the new alignment, etc.	Section 3. 3 – Proposed Project Facilities Table 3-1: Proposed Project Transmission Line Segments
	Describe whether construction would require one-for-one pole replacement, new poles, steel poles, etc.?	Section 3. 3 – Proposed Project Facilities Section 3.4 – Construction Methods
	Describe what would happen to other lines and utilities that may be collocated on the poles to be replaced (e.g., distribution, communication, etc.).	Section 3. 3 – Proposed Project Facilities Table 3-8: Relocated/Consolidated Power and Transmission Lines

Table 1-1 (cont.): PEA Checklist Key Table		
Location in PEA Checklist	Checklist Item	Location within PEA
3.5.2 Poles/Towers	Provide information for each pole/tower that would be installed and for each pole/tower that would be removed.	Section 3. 3 – Proposed Project Facilities Table 3-7: Typical Pole Dimensions Appendix 3-A: Pole Detail Table Appendix 3-B: Detailed Route Map
	Describe any specialty poles or towers; note where they would be used; make sure to note if any guying would likely be required across a road.	Section 3.3.2 – Segment B – Carmel Valley Road Appendix 3-A: Pole Detail Table Appendix 3-B: Detailed Route Map
	If the Proposed Project includes pole-for-pole replacement, describe the approximate location of where the new poles would be installed relative to the existing alignment.	The Proposed Project does not include pole-for-pole replacement, but location of installed and removed poles can be found here: Appendix 3-B: Detailed Route Map
	Describe any special pole types and any special features.	Section 3.3.2 – Segment B – Carmel Valley Road
3.5.3 Conductor/Cable 3.5.3.1 Above- Ground Installation	Describe the type of line to be installed on the poles/tower.	<ul> <li>Section 3. 3 – Proposed Project Facilities</li> <li>Section 3.4.1 – Overhead Transmission Line Construction</li> <li>Table 3-8: Relocated/Consolidated Power and Transmission Lines</li> </ul>
	Describe the number of conductors required to be installed on the poles or tower and the number on each side including applicable engineering design standards.	Section 3. 3 – Proposed Project Facilities Table 3-8: Relocated/Consolidated Power and Transmission Lines
	Provide the size and type of conductor and insulator configuration.	Section 3. 3 – Proposed Project Facilities Table 3-8: Relocated/Consolidated Power and Transmission Lines

Location in PEA Checklist	Checklist Item	Location within PEA
3.5.3.1 Above- Ground Installation	Provide the approximate distance from the ground to the lowest conductor and the approximate distance between the conductors (i.e., both horizontally and vertically). Provide specific information at highways, rivers, or special crossings.	<ul> <li>Section 3. 3 – Proposed Project Facilities</li> <li>Figure 3-6: Segment A Proposed ROW Cross Section</li> <li>Figure 3-8: Segment C Proposed ROW Cross Section</li> <li>Figure 3-10: Segment D Proposed ROW Cross Section</li> </ul>
	Provide the approximate span lengths between poles or towers, note where different if distribution is present or not if relevant.	Section 3. 3 – Proposed Project Facilities Appendix 3-A: Pole Detail Table Appendix 3-B: Detailed Route Map
	Determine whether other infrastructure would likely be collocated with the conductor; if so, provide conduit diameter of other infrastructure.	Section 3. 3 – Proposed Project Facilities
3.5.3.2 Below Ground Installation	Describe the type of line to be installed.	Section 3.3.2 – Segment B – Carmel Valley Road
	Describe the type of casing the cable would be installed in; provide the dimensions of the casing.	Section 3.3.2 – Segment B – Carmel Valley Road
	Provide an engineering 'typical' drawing of the duct bank and describe what types of infrastructure would likely be installed within the duct bank.	Appendix 3-C: Typical Structure Diagrams
3.5.4 Substations	Provide "typical" plan and profile views of the proposed substation and the existing substation if applicable.	Appendix 3-C: Typical Structure Diagrams
	Describe the types of equipment that would be temporarily or permanently installed and provide details as to what the	Section 3.3.5 – Associated Substation Work Section 3.3.5.1 – Sycamore Canyon Substation

function/use of said equipment would be.

# Table 1-1 (cont.): PEA Checklist Key Table

Section 3.3.5.2 - Peñasquitos Substation

Table 1-1 (cont.): PEA Cnecklist Key Table		
Location in PEA Checklist	Checklist Item	Location within PEA
	Provide the approximate or "typical" dimensions (width and height) of new structures including engineering and design standards that apply.	Section 3.3.5 – Associated Substation Work Section 3.3.5.1 – Sycamore Canyon Substation Section 3.3.5.2 – Peñasquitos Substation
3.5.4 Substations	Describe the extent of the Proposed Project. Would it occur within the existing fence line, existing property line or would either need to be expanded?	Section 3.3.5 – Associated Substation Work
	Describe the electrical need area served by the distribution substation.	Section 2.0 – Proposed Project Purpose and Need
3.6 Right-of-Way Requirements	Describe the ROW location, ownership, and width. Would the existing ROW be used or would a new ROW be required?	Section 3. 3 – Proposed Project Facilities Section 3.6.1 – Permanent Right-of-Way and Easement Requirements
	If a new ROW is required, describe how it would be acquired and approximately how much land would be required (length and width).	Section 3.6.1 – Permanent Right-of-Way and Easement Requirements
	List the properties likely to require acquisition.	Section 3.6.1 – Permanent Right-of-Way and Easement Requirements
3.7 Construction	Where would the main staging area(s) likely be located?	Section 3.4.6 – Temporary Work Areas Section 3.4.6.1 – Materials Storage and Staging
3.7.1 For All Projects	Approximately how large would the main staging area(s) be?	Section 3.4.6 – Temporary Work Areas Section 3.4.6.1 – Materials Storage and Staging
3.7.1.1 Staging Areas	Describe any site preparation required, if known, or generally describe what might be required.	Section 3.4.6.1 – Materials Storage and Staging
	Describe what the staging area would be used for.	Section 3.4.6.1 – Materials Storage and Staging

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Table 1-1 (cont.): PEA Checklist Key Table		
Location in PEA Checklist	Checklist Item	Location within PEA
2711 Stoging	Describe how the staging area would be secured, would a fence be installed? If so, describe the type and extent of the fencing.	Section 3.4.6.1 – Materials Storage and Staging
Areas	Describe how power to the site would be provided if required.	Section 3.4.6.1 – Materials Storage and Staging
	Describe any grading activities and/or slope stabilization issues.	Section 3.4.6.1 – Materials Storage and Staging
3.7.1.2 Work Areas	Describe known work areas that may be required for specific construction activities.	Section 3.4.6 – Temporary Work Areas Section 3.6.2 – Permanent Work Areas
	For each known work area, provide the area required (include length and width) and describe the types of activities that would be performed.	Section 3.4.6 – Temporary Work Areas Table 3-14: Summary of Permanent Work Areas
	Identify the approximate location of known work areas in the GIS database.	GIS Data is Confidential and not included Appendix 3-B: Detailed Route Map
	Describe how the work areas would likely be accessed.	Section 3.4.6 – Temporary Work Areas Section 3.6.2 – Permanent Work Areas
	If any site preparation is likely required, generally describe what and how it would be accomplished.	Section 3.4.6 – Temporary Work Areas Section 3.6.2 – Permanent Work Areas
	Describe any grading activities and/or slope stabilization issues.	Section 3.4.6 – Temporary Work Areas Section 3.6.2 – Permanent Work Areas

Table 1-1 (cont.): PEA Checklist Key Table		
Location in PEA Checklist	Checklist Item	Location within PEA
3.7.1.2 Work Areas	Based on the information provided, describe how the site would be restored.	<ul> <li>Section 3.4.1 – Overhead Transmission Line Construction</li> <li>Section 3.4.2 – Underground Transmission Line Construction</li> <li>Section 3.4.6 – Temporary Work Areas</li> <li>Section 3.4.6.3 – Structure Work Areas</li> <li>Section 3.4.9 – Site Cleanup</li> <li>Section 3.8 – Project Design Features and Ordinary Construction/Operation Restrictions</li> </ul>
3.7.1.3 Access Roads and/or Spur Roads	Describe the types of roads that would be used and/or would need to be created to implement the Proposed Project.	Section 3.4.1 – Step 1 –Access Road Construction Section 3.4.6.2 – Stringing Sites Section 3.4.6.3 – Structure Work Areas Section 3.4.6.6 - Access
	For road types that require preparation, describe the methods and equipment that would be used.	Section 3.4.1 – Step 1 – Access Road Construction Section 3.4.6.6 – Access Table 3-11: Standard Construction Equipment and Usage
	Identify approximate location of all access roads (by type) in the GIS database.	GIS Data is Confidential and not included
	Describe any grading activities and/or slope stabilization issues.	Section 3.4.1 – Step 1 –Access Road Construction Section 3.4.6.6 – Access
3.7.1.4 Helicopter Access	Identify which proposed poles/towers would be removed and/or installed using a helicopter.	Section 3.4.8 – Helicopter Usage during Transmission Line Construction
	If different types of helicopters are to be used, describe each type and what activities they would be used for.	Section 3.4.8 – Helicopter Usage during Transmission Line Construction

Table 1-1 (cont.): PEA Checklist Key Table		
Location in PEA Checklist	Checklist Item	Location within PEA
3.7.1.4 Helicopter Access	Provide information as to where the helicopters would be staged, where they would refuel, where they would land within the Proposed Project site.	Section 3.4.8 – Helicopter Usage during Transmission Line Construction Section 3.4.6.1 – Incidental Landing Areas
	Describe any BMPs that would be employed to avoid impacts caused by use of helicopters, for example: air quality and noise considerations.	Section 3.4.8 – Helicopter Usage during Transmission Line Construction Section 3.8 – Project Design Features and Ordinary Construction/Operation Restrictions (Helicopter use)
	Describe flight paths, payloads, hours of operations for known locations, and work types.	Section 3.4.8 – Helicopter Usage during Transmission Line Construction
3.7.1.5 Vegetation Clearance	Describe the types of vegetation clearing that may be required and why.	<ul> <li>Section 3.4.1 – Step 1 – Access Road Construction</li> <li>Section 3.4.1 – Step 2 – Work Pad Construction</li> <li>Section 3.4.1 – Step 3 – Installing Structure Foundations</li> <li>Section 3.4.1 – Step 5 – Existing Facilities Removal</li> <li>Section 3.4.6.6 – Access</li> <li>Section 3.7 – Operation and Maintenance</li> </ul>
	Identify the preliminary location and provide an approximate area of disturbance in the GIS database for each type of vegetation removal.	GIS Data is Confidential and not included
	Describe how each type of vegetation removal would be accomplished.	Section 3.4.6.6 – Access Section 3.7 – Operation and Maintenance (Existing and Proposed)
	For removal of trees, distinguish between tree trimming as required under GO-95D and tree removal.	Section 3.7 – Operation and Maintenance (Existing and Proposed)
	Describe the types and approximate number and size of trees that may need to be removed.	Section 4.4 – Biological Resources

Table 1-1 (cont.): PEA Checklist Key Table		
Location in PEA Checklist	Checklist Item	Location within PEA
3.7.1.5 Vegetation Clearance	Describe the type of equipment typically used.	<ul><li>Section 3.7 – Operation and Maintenance (Existing and Proposed)</li><li>Table 3-11: Standard Construction Equipment and Usage</li></ul>
3.7.1.6 Erosion and Sediment Control and Pollution Prevention during Construction	Describe the areas of soil disturbance including estimated total areas and associated terrain type and slope. List all known permits required. For project sites of less than 1 acre, outline the BMPs that would be implemented to manage surface runoff.	<ul> <li>Section 3.4.1 – Step 3 – Installing Structure Foundations</li> <li>Section 3.4.6 – Temporary Work Areas</li> <li>Section 3.8 – Project Design Features and Ordinary Construction/Operating Restrictions</li> <li>Table 3-9: Temporary Work Areas Summary</li> <li>Table 3-14: Summary of Permanent Work Areas</li> <li>Table 3-17: Anticipated Permit, Approval, and Consultation Requirements</li> </ul>
	Describe any grading activities and/or slope stabilization issues.	<ul> <li>Section 3.4.1 – Overhead Transmission Line Construction</li> <li>Section 3.4.1 – Step 1 – Access Road Construction</li> <li>Section 3.4.1 – Step 2 – Work Pad Construction</li> <li>Section 3.4.1 – Step 3 – Installing Structure Foundations</li> <li>Section 4.6 – Geology, Soils, and Mineral Resources</li> <li>Section 4.8 – Hydrology and Water Quality (Questions 8c and 8e)</li> </ul>

Location in PEA Checklist	Checklist Item	Location within PEA
3.7.1.6 Erosion and Sediment Control and Pollution Prevention during Construction	Describe how construction waste would be disposed.	<ul> <li>Section 3.4 – Construction Methods</li> <li>Section 3.4.2 - Step 2 – Trenching and Duct Bank Installation</li> <li>Section 3.4.6.1 – Materials Storage and Staging</li> <li>Section 3.4.10 – Removed Structures/Poles, Materials, and Components</li> </ul>
		Section 4.15 – Utilities and Service Systems
3.7.1.7 Cleanup and Post-Construction Restoration	Describe how cleanup and post-construction restoration would be performed.	Section 3.4.1 – Step 8 - Site Cleanup Section 3.4.2 – Step 4 - Site Cleanup Section 3.4.9 – Site Cleanup Table 3-12: Proposed Construction Schedule
3.7.2 Transmission Line Construction (Above Ground) 3.7.2.1 Pull and Tension Sites	Provide the general or average distance between pull and tension sites.	Section 3.4.6.2 – Stringing Sites Appendix 3-B: Detailed Route Map
	Provide the area of pull and tension sites including the estimated length and width.	Section 3.4.6.2 – Stringing Sites
	According to the preliminary plan, identify the number of pull and tension sites that would be required, and their locations. Provide the location information in GIS.	Section 3.4.6.2 – Stringing Sites GIS Data is Confidential and not included Appendix 3-B: Detailed Route Map
	Describe the type of equipment that would be required at these sites.	Section 3.4.6.2 – Stringing Sites Table 3-11: Standard Construction Equipment and Usage
	If conductor is being replaced, describe how it would be removed from the site.	Section 3.4.1 – Step 5 – Existing Facilities Removal Table 3-11: Standard Construction Equipment and Usage

**Location within PEA** 

Table 3-11: Standard Construction Equipment and

Section 3.4.1 – Step 5 – Existing Facilities Removal

Section 3.4.1 – Step 5 – Existing Facilities Removal

Section 3.4.1 – Step 5 – Existing Facilities Removal

Section 3.4.1 – Step 5 – Existing Facilities Removal

Section 3.4. 10 – Removed Structures/Poles.

Materials, and Components

Section 3.4.1 – Step 8 – Site Cleanup

Section 3.1 – Proposed Project Overview

Section 3.3.6.2 – Distribution Underbuild

Section 3.3 – Proposed Project Facilities

Section 3.4.1 – Step 4 – Structure Erection

Section 3.4.1 – Step 3 – Installing Structure

Section 3.4.1 – Step 4 – Structure Erection

Section 3.4.6.3 – Structure Work Areas

Foundations

Usage

Section 3.4.6.6 – Access

Describe how the construction crews and their equipment would be transported to and from the pole site locations. Provide vehicle type, number of vehicles, estimated number of trips, and hours of operation.
Describe the process of removing the poles and foundations.
Describe what happens to the holes that the poles were in (i.e., reused or backfilled)?
If the holes are to be backfilled, what type of fill would be used and where would it come from?
Describe any surface restoration that would occur at the pole sites.
Describe how the poles would be removed from the sites.
If topping is required to remove a portion of an existing transmission pole that would now only carry distribution lines, describe the methodology to access and remove the tops of these poles. Describe any special methods that would be required to top poles that may be difficult to access, etc.
Describe the process of how the new poles/towers would be installed; specifically identify any special construction methods for specific locations or for different types of poles/towers.

**Checklist Item** 

# Table 1-1 (cont.): PEA Checklist Key Table

**Location in PEA** 

Checklist

3.7.2.2 Pole

Removal

Installation and

	Location in PEA Checklist	
		Descr pole/t
		Descr enviro
		Descr hole/f
	3.7.2.2 Pole/Tower	For an constri diame excav requir
Installatio	Installation	Descr are as
		Descr

# Table 1-1 (cont.): PEA Checklist Key Table

Location in PEA Checklist	Checklist Item	Location within PEA
	Describe the types of equipment and their use as related to pole/tower installation.	Section 3.4.1 – Step 4 – Structure Erection Table 3-11: Standard Construction Equipment and Usage
	Describe the actions taken to maintain a safe work environment during construction.	Section 3.4 – Construction Methods Section 3.8 – Project Design Features and Ordinary Construction/Operating Restrictions
	Describe what would be done with soil that is removed from a hole/foundation site.	Section 3.4.1 – Step 3 – Installing Structure Foundations
.2.2 Pole/Tower stallation	For any foundations required, provide a description of the construction method(s), approximate average depth and diameter of excavation, approximate volume of soil to be excavated, approximate volume of concrete or other backfill required, etc.	Section 3.4.1 – Step 3 – Installing Structure Foundations
	Describe briefly how poles/towers and associated hardware are assembled.	Section 3.4.1 – Step 4 – Structure Erection
	Describe how the poles/towers and associated hardware would be delivered to the site; would they be assembled off-site and brought in or assembled on site?	Section 3.4.1 – Step 4 – Structure Erection Section 3.4.6.1 – Materials Storage and Staging
	Provide the following information about pole/tower installation and associated disturbance area estimates; pole diameter, lattice tower base dimension, auger hole depth, permanent footprint per pole/tower, number of poles/towers, average work area around poles/towers, and total permanent footprint for poles/towers.	<ul> <li>Section 3.4.1 – Step 3 – Installing Structure Foundations</li> <li>Table 3-7: Typical Pole Dimensions</li> <li>Table 3-9: Temporary Work Areas Summary</li> <li>Table 3-14: Summary of Permanent Work Areas</li> <li>Appendix 3-A: Pole Detail Table</li> <li>Appendix 3-B: Detailed Route Map</li> </ul>

Table 1-1 (cont.): PEA Checklist Key Table		
Location in PEA Checklist	Checklist Item	Location within PEA
	Provide a process-based description of how new conductor/cable would be installed and how old conductor/cable would be removed, if applicable.	Section 3.4.1 – Step 5 – Existing Facilities Removal Section 3.4.1 – Step 7 – Conductor Stringing
	Generally describe the conductor/cable splicing process.	Section 3.4.2 – Step 3 – Cable Pulling, Splicing, and Termination
	If vaults are required, provide their dimensions and approximate location/spacing along the alignment.	Section 3.3.2 – Segment B – Carmel Valley Road
3.7.2.3 Conductor/Cable Installation	Describe in what areas conductor/cable stringing/installation activities would occur.	Section 3.3 – Proposed Project Facilities Section 3.4.6.2 – Stringing Sites Appendix 3-B: Detailed Route Map
	Describe any safety precautions or areas where special methodology would be required.	Section 3.4.6.4 – Guard Structures Section 3.4.7 – Road Crossings Section 3.4.8 – Helicopter Usage during Transmission Line Construction Section 3.8 – Project Design Features and Ordinary Construction/Operating Restrictions
	Describe the approximate dimensions of the trench (e.g., depth, width).	Section 3.4.2 – Step 2 – Trenching and Duct Bank Installation
<ul><li>3.7.3 Transmission</li><li>Line Construction</li><li>(Below Ground)</li><li>3.7.3.1 Trenching</li></ul>	Describe the methodology of making the trench.	Section 3.3.2 – Segment B – Carmel Valley Road Section 3.4.2 – Step 2 – Trenching and Duct Bank Installation
	Provide the total approximate cubic yardage of material to be removed from the trench, the amount to be used as backfill and the amount to subsequently be removed/disposed of off- site.	Section 3.4.2 – Step 2 – Trenching and Duct Bank Installation

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Table 1-1 (cont.): PEA Checklist Key Table		
Location in PEA Checklist	Checklist Item	Location within PEA
3.7.3 Transmission Line Construction (Below Ground) 3.7.3.1 Trenching	Provide off-site disposal location, if known, or describe possible option(s).	<ul> <li>Section 3.4 – Construction Methods</li> <li>Section 3.4.2 – Step 2 – Trenching and Duct Bank Installation</li> <li>Table 3-10: Common Destination of Retired Project Components</li> </ul>
	If engineered fill would be used as backfill, provide information as to the type of engineered backfill and the amount that would be typically used.	Section 3.3.2 – Segment B – Carmel Valley Road Section 3.4.2 – Step 2 – Trenching and Duct Bank Installation
	Describe if dewatering would be anticipated, if so, how the trench would be dewatered, what the anticipated flows of the water are, whether there would be treatment, and how the water would be disposed.	Section 3.4.2 – Step 2 – Trenching and Duct Bank Installation Section 3.4.4 – Dewatering
	Describe the process for testing excavated soil or groundwater for the presence of pre-existing environmental contaminants that could be exposed as a result of trenching operations.	Section 3.4.2 – Step 2 – Trenching and Duct Bank Installation Section 4.7 – Hazards and Hazardous Materials
	If pre-existing hazardous waste was encountered, describe the process of removal and disposal.	Section 3.4.2 – Step 2 – Trenching and Duct Bank Installation Section 4.7 – Hazards and Hazardous Materials
	Describe any standard BMPs that would be implemented.	Section 3.4.2 – Step 2 – Trenching and Duct Bank Installation Section 4.7 – Hazards and Hazardous Materials

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Table 1-1 (cont.): PEA Checklist Key Table		
Location in PEA Checklist	Checklist Item	Location within PEA
	Provide the approximate location of the bore pits.	Not Applicable – Boring will only take place at one existing bridge along Carmel Valley Road. Section 3.4.2 – Step 2 – Trenching and Duct Bank Installation
	Provide the length, width and depth of the sending and receiving pits.	Not Applicable – No sending or receiving pits are proposed.
	Describe the methodology of excavating and shoring the pits.	Not Applicable – No sending or receiving pits are proposed.
	Describe the methodology of the trenchless technique.	Section 3.4.2 – Step 2 – Trenching and Duct Bank Installation (Duct Bank Installation)
3.7.3.2 Trenchless Techniques: Microtunnel, Bore	Provide the total cubic yardage of material to be removed from the pits, the amount to be used as backfill and the amount to subsequently be removed/disposed of off-site.	Not Applicable – No sending or receiving pits are proposed.
and Jack, Horizontal Directional Drilling	Describe the process for safe handling of drilling mud and bore lubricants.	Not Applicable – No drilling mud is proposed.
Directional Drining	Describe the process for detecting and avoiding "fracturing- out" during horizontal directional drilling operations.	Not Applicable – No horizontal directional drilling is proposed.
	Describe the process for avoiding contact between drilling mud/lubricants and stream beds.	Not Applicable – No drilling mud is proposed.
	If engineered fill would be used as backfill, provide information as to the type of engineered backfill and the amount that would be typically used.	Not Applicable – No engineered fill is anticipated.
	If dewatering is anticipated, describe how the pit would be dewatered, what the anticipated flows of the water are, whether there would be treatment, and how the water would be disposed.	Not Applicable – Dewatering is not anticipated.

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Table 1-1 (cont.). TEA Checknist Key Table		
Location in PEA Checklist	Checklist Item	Location within PEA
3.7.3.2 Trenchless Techniques:	Describe the process for testing excavated soil or groundwater for the presence of pre-existing environmental contaminants.	Not Applicable – No soil or groundwater will be encountered at the bore location.
	If a pre-existing hazardous waste was encountered, describe the process of removal and disposal.	Not Applicable – No known contaminants existing near the bore location.
Microtunnel, Bore and Jack, Horizontal	Describe any grading activities and/or slope stabilization issues.	Not Applicable – No grading or slope stabilization is anticipated at the bore location.
Directional Drilling	Describe any standard BMPs that would be implemented.	Section 3.4.2 – Step 2 – Trenching and Duct Bank Installation
		Section 3.8 – Project Design Features and Ordinary Construction/Operating Restrictions (SDG&E Water Quality Construction BMP Manual)
	Describe any earth moving activities that would be required; what type of activity and, if applicable, estimate cubic yards of materials to be reused and/or removed from the site for both site grading and foundation excavation.	Not Applicable – No earth moving activities at substations are proposed. For pole installations/removals at substations see:
		Section 3.3.4 – Segment D - Peñasquitos Junction to Peñasquitos Substation
		Section 3.3.5 – Associated Substation Work
3.7.4 Substation		Section 3.4.1 – Step 3 – Installing Structure Foundations
Construction	Provide a conceptual landscape plan in consultation with the municipality in which the substation is located.	Not Applicable – No landscape plan is proposed.
	Describe any grading activities and/or slope stabilization issues.	Not Applicable – No grading activities are expected.
	Describe possible relocation of commercial or residential property, if any.	Not Applicable – No relocation of commercial or residential property is being proposed as part of this project.
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Table 1-1 (cont.): PEA Checklist Key Table		
Location in PEA Checklist	Checklist Item	Location within PEA
3.7.5 Construction Workforce and Equipment	Provide the estimated number of construction crew members.	Section 3.4.11.1 – Construction Personnel
	Describe the crew deployment, whether crews would work concurrently, if they would be phased, etc.	Section 3.4.11.1 – Construction Personnel
	Describe the different types of activities to be undertaken during construction, the number of crew members for each activity, and the number and types of equipment expected to be used for said activity. Include a written description of the activity.	Section 3.4 – Construction Methods Section 3.4.11 – Construction Equipment and Personnel
	Provide a list of the types of equipment expected to be used during construction of the Proposed Project as well as a brief description of the use of the equipment.	Table 3-11: Standard Construction Equipment and Usage
3.7.6 Construction Schedule	Provide a preliminary project construction schedule; include contingencies for weather, wildlife closure periods, etc.	Section 3.5 – Construction Schedule
3.8 Operation and Maintenance	Describe the general system monitoring and control.	Section 3.7 – Operation and Maintenance (Existing and Proposed)
	Describe the general maintenance program of the Proposed Project include timing of inspections, type of inspection, and a description of how the inspection would be implemented.	Section 3.7 – Operation and Maintenance (Existing and Proposed)
	If additional full time staff would be required for operation and/or maintenance, provide the number of workers and for what purpose they are required.	Section 3.7 – Operation and Maintenance (Existing and Proposed) Section 3.4.11 – Construction Equipment and Personnel
3.9 Applicant Proposed Measures	If there are measures that the Applicant would propose to be part of the Proposed Project, include those measures and reference plans or implementation descriptions.	Section 3.9 – Applicant Proposed Measures Sections 4.1 through 4.16

Location in PEA Checklist	Checklist Item	Location within PEA
3.10 Electric and Magnetic Fields Summary	Electric and Magnetic Fields Summary	Detailed Magnetic Field Management Plan included as Appendix H of the CPCN application.
Chapter 4: Environm	ental Setting	
	For each resource area discussion within the PEA, include the following: a description of the physical environment in the vicinity of the Proposed Project and a description of the regulatory environment/context.	Section 4.1 through Section 4.15
	Limit detailed descriptions to those resource areas which may be subject to a potentially significant impact.	Section 4.1 through Section 4.15
Chapter 5: Environm	ental Impact Assessment Summary	
5.1 Aesthetics	Provide visual simulations of prominent public view locations, including scenic highways, to demonstrate the views before and after project implementation.	Section 4.1 – Aesthetics Figures 4.1-4 through 4.1-13
5.2 Agriculture Resources	Identify the types of agricultural resources affected.	Section 4.2 – Agriculture and Forestry Resources
	Provide supporting calculations/spreadsheets/technical reports that support emission estimates in the PEA.	Appendix 4.3-A: Air Quality Construction Emissions
5.3 Air Quality	Provide documentation of the location and types of sensitive receptors that could be impacted by the project.	Section 4.3 – Air Quality and Greenhouse Gases
	Identify Proposed Project greenhouse gas (GHG) emissions.	Section 4.3 – Air Quality and Greenhouse Gases

# Table 1-1 (cont.): PEA Checklist Key Table

Table 1-1 (cont.): FEA Unecklist Key Table		
Location in PEA Checklist	Checklist Item	Location within PEA
5.3 Air Quality	Ensure that the assessment of air quality impacts are consistent with PEA Sections 3.7.5 and 3.7.6, as well as with the PEA's analysis of impacts during construction, including traffic and all other emissions.	Section 4.3 – Air Quality and Greenhouse Gases
5.4 Biological Resources	Provide a copy of the Wetland Delineation and supporting documentation. If verified, provide supporting documentation.	Appendix 4.4-A: Biological Technical Report
	Provide a copy of special-status surveys for wildlife, botanical and aquatic species, as applicable. Any GIS data documenting locations of special-status species should be provided.	Appendix 4.4-A: Biological Technical Report GIS Data is Confidential and not included
5.5 Cultural Resources	Cultural Resources Report documenting a cultural resources investigation of the Proposed Project.	Appendix 4.5-A: Archaeological Survey Report
	Provide a copy of the records found in the literature search.	Appendix 4.5-A: Archaeological Survey Report Appendix 4.5-B: Paleontological Resources Record Search
	Provide a copy of all letters and documentation of Native American consultation.	Appendix 4.5-A: Archaeological Survey Report
5.6 Geology, Soils, and Seismic Potential	Provide a copy of the geotechnical investigation if completed, including known and potential geologic hazards such as ground shaking, subsidence, liquefaction, etc.	Geotechnical Report pending.

# Table 1 1 (cont.), DEA Cheeklist Koy Table

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Location in PEA Checklist	Checklist Item	Location within PEA
5.14 Recreation	Data needs already specified under Chapter 3 would generally meet the data needs for this resource area.	Not Applicable.
5.15 Transportation and Traffic	Discuss traffic impacts resulting from construction of the Proposed Project including ongoing maintenance operations.	Section 4.14 – Transportation and Traffic
	Provide a preliminary description of the traffic management plan that would be implemented during construction of the Proposed Project.	Section 4.14 – Transportation and Traffic
5.16 Utilities and Services Systems	Describe how treated wood poles would be disposed of after removal, if applicable.	Section 3.4.10 – Removed Structures/Poles, Materials, and Components
5.17 Cumulative Analysis	Provide a list of projects within the Proposed Project area that the applicant is involved in.	Section 4.16 – Cumulative Impacts Table 4.16-1: Planned and Proposed Projects within One Mile of the Proposed Project Area
	Provide a list of projects that have the potential to be approximate in space and time to the Proposed Project.	Section 4.16 – Cumulative Impacts Table 4.16-1: Planned and Proposed Projects within One Mile of the Proposed Project Area
5.18 Growth- Inducing Impacts, If Significant	Provide information on the Proposed Project's growth- inducing impacts.	Section 5.3 – Growth-Inducing Impacts
Chapter 6: Detailed Discussion of Significant Impacts		
6.1 Mitigation Measures Proposed to Minimize Significant Effects	Discuss each mitigation measure and the basis for selecting a particular mitigation measure should be stated.	Sections 4.1 through 4.16 Section 3.9 - Applicant Proposed Measures

# Table 1-1 (cont.): PEA Checklist Key Table

Table 1-1 (cont.): PEA Checklist Key Table		
Location in PEA Checklist	Checklist Item	Location within PEA
6.2 Description of Project Alternatives and Impact	Provide a summary of the alternatives considered that would meet most of the objectives of the Proposed Project and an explanation as to why they were not chosen as the Proposed Project. Include system or facility alternatives, route alternatives, route variations, alternative locations.	Section 5.2 – Description of Project Alternatives to Minimize Significant Effects
Anarysis	Include a description of a "No Project Alternative".	Section 5.2 – Description of Project Alternatives to Minimize Significant Effects
6.2 Description of Project Alternatives and Impact Analysis	If significant environmental effects are assessed, the discussion of alternatives shall include alternatives capable of substantially reducing or eliminating any said significant environmental effects, even if the alternative(s) substantially impede the attainment of the Proposed Project objectives and are more costly.	Section 5.2 – Description of Project Alternatives to Minimize Significant Effects
6.3 Growth- Inducing Impacts	Discussion should be fairly succinct and focus on if the Proposed Project will foster economic or population growth, cause an increase in population that could further tax existing community service facilities, or encourage and facilitate other activities that would cause population growth that could significantly affect the environment.	Section 5.3 - Growth-Inducing Impacts
6.4 Suggested Applicant Proposed Measures to address GHG Emissions	Include a menu of suggested APM's that applicants can consider.	Section 3.9 – Applicant Proposed Measures Section 4.3 – Air Quality and Greenhouse Gases
Chapter 7: Other Process-Related Data Needs		
	Include an excel spreadsheet that identifies all parcels within 300 feet of any Proposed Project component with the following data: APN number, owner mailing address, and parcels physical address.	Parcel data also included as Appendix C of the CPCN application.
Notes: 'SDG&E would prepare plans if required.		

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# 2.0 PROPOSED PROJECT PURPOSE AND NEED

This section of the PEA identifies the objectives, purpose, and need for SDG&E's Proposed Project as required by the CPUC PEA Guidelines (CPUC Information and Criteria List, Appendix B, Section V) and the California Environmental Quality Act (CEQA) Guidelines (Sections 15124(b) and 15126.6(a)). Additional information regarding the Proposed Project's purpose and need is provided in SDG&E's application to the CPUC, in accordance with CPUC General Order 131-D.

# 2.1 OVERVIEW OF PROJECT NEED

# 2.1.1 Existing and Projected Electric System Constraints

SDG&E is a regulated public utility that provides electric service to approximately 1.4 million electric customers within a 4,100-square-mile service area, covering 25 cities and unincorporated areas within San Diego County and a portion of Orange County. SDG&E requests approval of the Proposed Project to ensure the reliability of the transmission system, meet State of California policy goals, accommodate load growth, and improve system efficiency.

SDG&E's bulk electric transmission system serving the San Diego metropolitan area currently has three major gateways for energy that is imported to serve customer load. These include the Miguel 500/230 kV Substation, the Sycamore Canyon 230 kV Substation, and Path 44, which is composed of three 230 kV lines from the San Onofre Nuclear Generation Station (SONGS) Switchyard to the San Luis Rey Substation and two 230 kV lines from the SONGS Switchyard to the Talega Substation.

SDG&E's ability to operate its bulk electric transmission system reliably and efficiently has become constrained, particularly at gateway substations. During periods of high customer demand and high energy imports, as well as during periods of high renewable energy generation in the Imperial Valley, most of the energy imported into San Diego flows across the 500 kV Southwest Powerlink and Sunrise Powerlink transmission lines. This imported energy then flows into the Miguel and Sycamore Canyon Substations, respectively. Heavy energy flows into these gateway substations can result in congestion and subsequent NERC reliability criteria violations on the 230 kV, 138 kV, and 69 kV transmission and power lines downstream, requiring dispatch of less efficient generation, increasing energy costs for ratepayers and eventually requiring upgrades to these downstream facilities.

SDG&E's ability to provide electric service reliably and efficiently has been further constrained by the unanticipated early retirement of the SONGS and the planned retirement of coastal OTC generation units in San Diego and the western Los Angeles basin. These events prompted a request from Governor Brown's office to look at what mitigations could be put in place to "keep the lights on". A task force was formed in the summer of 2013, which included the Staff of the CPUC, California Energy Commission (CEC), and CAISO, to create a Preliminary Reliability Plan for Los Angeles Basin and San Diego<sup>1</sup>. The Governor's task force identified this project as a necessary mitigation in Section 2 - Near Term Needs 2014-2017:

**Sycamore Canyon – Penasquitos Transmission Line** – To address local transmission overloads in the northern region of San Diego system, some of which are exacerbated by the absence of San Onofre, the [CA]ISO-approved a new 230 kV transmission line from the Sycamore Canyon to Penasquitos Substations to improve power flows from east to west. The online date is targeted to 2017, although permitting and construction risk may delay the final operating date. There are multiple applicants seeking to build this line. As the CPUC is the lead siting agency for all of the applicants seeking to build the line.<sup>[2]</sup> To meet the 2017 in-service date, the selected sponsor will need to be determined in early 2014 and file for a CPCN with the CPUC in mid 2014. The CPUC should process and approve the application by mid 2015.

Also, the CAISO conducts a Transmission Planning Process each year, which is a roughly 15month planning cycle. The Transmission Planning Process kicks off in January of each year, when the three Participating Transmission Owners (PTOs) (Pacific Gas and Electric Company, Southern California Edison and SDG&E) provide the CAISO with updated system data (completed projects, load forecasts, etc.). The CAISO staff, in conjunction with planners at each PTO, then study the reliability of the system over a ten year window (for example, the current 2013/2014 planning cycle studies the system for years 2014-2023). The plan builds upon the previous year's plan and assumes that any project previously approved is in service by the date the plan specified. The CAISO's approved 2013-2014 Transmission Plan assumes the Sycamore-Peñasquitos 230 kV line is in service by 2017 and identifies additional transmission projects that are needed to address the reliability of the transmission grid in California as well as focusing on the specific reliability issues facing Southern California as a result of the early retirement of SONGS as well as the future retirement of the state's once-through-cooling power plants.

These system constraints are projected to worsen over time. As the San Diego metropolitan area load continues to increase, the imports into Miguel and Sycamore Canyon Substations will also increase. The CEC has forecasted that the 1-in-10 peak customer load served by SDG&E will increase by 390 megawatts (MW) from 2013 to 2017, for a peak 2017 load of 5510 MW<sup>3</sup>.

In addition, significant renewable generation is currently under development in the Imperial Valley and elsewhere in the Southwestern United States, which will further increase flows on the Sunrise Powerlink and into Sycamore Canyon Substation.

<sup>&</sup>lt;sup>1</sup> <u>http://www.energy.ca.gov/2013\_energypolicy/documents/2013-09-09\_workshop/2013-08-30\_prelim\_plan.pdf</u> - page 4.

 $<sup>^{2}</sup>$  Subsequent to the release of the Governor's task force report, CAISO became responsible for selecting the project sponsor to build the line.

<sup>&</sup>lt;sup>3</sup> Revised California Energy Demand Forecast, 2012-2022, Mid Case, published February 2012.

# 2.1.2 CAISO Solicitation for a Sycamore-Peñasquitos 230 kV Line

The 2012-2013 Transmission Plan (Plan) was approved by the CAISO Board of Governors in March 2013. This 2012-2013 Transmission Plan identified the Sycamore-Peñasquitos 230 kV Line project as a reliability-driven project eligible for competitive solicitation due to policy benefits such as meeting state environmental and energy policy goals. In connection with the 2012-2013 Transmission Plan Competitive Solicitation Process, CAISO reviewed four separate proposals to construct and operate a new 230 kV transmission line between the existing Sycamore Canyon and Peñasquitos Substations. On March 4, 2014, CAISO announced that it had selected SDG&E's proposal (Sycamore-Peñasquitos Project, Project Sponsor Selection Report dated March 4, 2014) to construct and operate the new line. SDG&E's Proposed Project is consistent with the CAISO's Functional Specification for the project, as described in more detail below. SDG&E does not have access to the three proposals that were rejected by CAISO.

As part of the policy process, the CAISO issued a Functional Specification<sup>4</sup> for the project that stated the need for a transmission line with at least 1175 megavolt-amperes (MVA) of capacity. The overall purpose of the Proposed Project is to meet this CAISO-identified capacity need by providing an additional 230 kV high-voltage outlet at Sycamore Canyon Substation. Installing this outlet would allow the delivery of power directly to the coastal load center rather than forcing it onto the 138 kV and 69 kV networks. As a result, the Proposed Project would relieve congestion on these lower-voltage facilities.

The need to provide an additional 230 kV outlet at Sycamore Canyon Substation has also been identified in CAISO's long-term assessments of the bulk power system serving San Diego, and the CAISO's approved 2013-2014 Transmission Plan assumes the Sycamore-Peñasquitos 230 kV line is in service by 2017. The Proposed Project is the result of work done independently by both CAISO and SDG&E staff working toward a common goal of service reliability through compliance with mandatory standards.

# 2.1.3 SDG&E's Proposed Project

SDG&E's Proposed Project would meet all requirements within the CAISO Functional Specification for the Project, including but not limited to the following:

- New 230 kV transmission line with at least 1175 MVA of capacity;
- Line terminus of Sycamore Canyon Substation and Peñasquitos Substation;
- Minimum continuous ampacity of 2290 Amps (917 MVA);
- Minimum four-hour emergency ampacity of 2950 Amps (1175 MVA);
- Minimum of six pairs of fiber through optical ground wire; and
- In-service date of May 2017.

<sup>&</sup>lt;sup>4</sup> <u>http://www.caiso.com/Documents/Description-FunctionalSpecificationsSycamore-Penasquitos230kVLine.pdf.</u>

In addition to meeting the Functional Specification of the CAISO, SDG&E's Proposed Project meets the ultimate goal of SDG&E and CAISO that any upgrade to the transmission system provide safe, reliable, and reasonably priced electric power to the ratepayers. This is consistent with CPUC Section 451 and SDG&E's obligation to serve by implementing a comprehensive and long-term electric system strategy. It also meets one of the CAISO's primary objectives: to benefit customers by operating the grid in a reliable and efficient manner.<sup>5</sup>

Additional benefits of the Proposed Project include:

- No new land acquisitions for substations and transmission;
- Minimal additional land rights to existing transmission ROW;
- Utilization of existing utility corridors where similar electrical facilities currently exist; and
- Utilization of existing facilities such as structures, access roads and work areas where feasible.

# 2.2 **PROJECT OBJECTIVES**

The Proposed Project components are presented in Section 3.0, Proposed Project Description, while each of the Proposed Project objectives is more thoroughly described below:

- 1. Meet the Functional Specifications identified by CAISO in its 2012-2013 Transmission Plan for a new 230 kV transmission line from the existing Sycamore Canyon Substation to the existing Peñasquitos Substation. This accomplishes the following sub-objectives for the SDG&E bulk power system:
  - a. Ensure that the SDG&E bulk electric system continues to meet NERC, WECC, and CAISO reliability criteria;
  - b. Promote compliance with State of California policy goals with regards to renewable energy integration and OTC retirement;
  - c. Reliably and economically meet forecasted load growth for the San Diego metropolitan area; and
  - d. Deliver imported energy more efficiently to the San Diego load center.
- 2. Locate the Proposed Project's facilities within existing transmission and power line corridors, SDG&E ROW, utility owned property, and City of San Diego franchise rights of way.

<sup>&</sup>lt;sup>5</sup>CAISO Mission Statement: "For the benefit of our customers, we: (1) operate the grid reliably and efficiently; (2) provide fair and open transmission access; (3) promote environmental stewardship; and (4) facilitate effective markets and promote infrastructure development. All through the provision of timely and accurate information."

# 2.2.1 Objective 1: Meet the Functional Specifications Identified by CAISO in its 2012-2013 Transmission Plan for a New 230 kV Circuit from Sycamore Canyon Substation to Peñasquitos Substation

As described in Section 2.1, the CAISO's approved 2012-2013 Transmission Plan includes a new 230 kV bulk power transmission line connecting the existing Sycamore Canyon and Peñasquitos Substations in northern suburban San Diego, and the CAISO's approved 2013-2014 Transmission Plan assumes the Sycamore-Peñasquitos 230 kV line is in service by 2017. The purposes of this policy and reliability project are to meet state environmental and energy policy goals, and to ensure the bulk power system is in compliance with applicable NERC, WECC, and CAISO transmission planning criteria. The Proposed Project is consistent with these purposes and achieves Objective 1 through the following sub-objectives.

# 2.2.1.1 <u>Objective 1a: Ensure that the SDG&E Bulk Electric System Continues to Meet</u> <u>NERC, WECC, and CAISO Reliability Criteria</u>

One of the primary objectives of the Proposed Project is to reduce the risk of a service interruption resulting from a transmission failure. The standards put in place by the Federal Energy Regulatory Commission (FERC) after the August 14, 2003 Northeast blackout set the foundation for reducing the possibility of power system failures and address the need to construct new transmission infrastructure.

The Proposed Project is needed to comply with mandatory NERC, WECC and CAISO standards. TPL-002-0<sup>6</sup> requires all transmission lines and transformers that remain in service following the loss of a single transmission line or transformer to be within applicable ratings. Additionally, NERC Standard TPL-001-0<sup>7</sup> requires that all transmission lines and transformers in service remain within their normal (i.e., continuous) ratings with all lines in service and in the absence of any system contingencies. Neither standard allows interruption of customer load to be used to mitigate overloads.

To accommodate the State of California's policy goal of 33 percent Renewables Portfolio Standard (RPS) by 2020, CPUC staff developed four renewable generation scenarios that took into consideration transmission constraints, cost, commercial interest, environmental concerns, and timing of development. The CPUC proposed that one of these, the Commercial Interest Portfolio, be considered as a base case for CAISO's planning purposes and the other three scenarios (the cost-constrained scenario, the environmentally-constrained scenario, and the high distributed generation scenario) also be studied<sup>8</sup>. The CAISO and SDG&E performed conventional, independent reliability assessments of the transmission system in the Sycamore Canyon Substation area using industry-standard analytical techniques. The CAISO's study found the following thermal overloads can be effectively mitigated by a new 230 kV

<sup>&</sup>lt;sup>6</sup> NERC Transmission Planning Standard TPL-002-0 – System Performance Following Loss of a Single Bulk Electric System Element (Category B), Table I, Category B.

<sup>&</sup>lt;sup>7</sup> NERC Transmission Planning Standard TPL-001-0 – System Performance Under Normal (No Contingency) Conditions (Category A), Table I, Category A.

<sup>&</sup>lt;sup>8</sup> See Executive Summary, 33 Percent RPS Generation Portfolios and Transmission Assessment section of the CAISO Board-Approved Transmission Plan Pg. 14

<sup>(</sup>http://www.caiso.com/Documents/BoardApproved2012-2013TransmissionPlan.pdf)

transmission line connecting the existing Sycamore Canyon and Peñasquitos Substations in the CPUC-developed Commercial Interest Portfolio:

- Normal (N-0) Overloads on Bay Boulevard-Miguel 230 kV line;
- N-1 Contingency Overloads on Sycamore-Scripps 69 kV line;
- N-1 Contingency Overloads on Miguel-Mission 230 kV line #1 and #2; and
- N-1 Contingency Overloads on Old Town-Mission 230 kV line.

SDG&E's study correlated to the CAISO's finding, and also showed NERC Category B reliability violations appearing on Sycamore Canyon-Pomerado 69 kV lines #1 and #2, and the Sycamore Canyon-Scripps 69 kV line. The Proposed Project meets Objective 1a by mitigating the transmission overloads identified by SDG&E and the CAISO, by delivering the power directly to the coastal load center rather than forcing the power through the 138 kV and 69 kV network systems. The Proposed Project would extend a new 230 kV line approximately 16.7 miles from Sycamore Canyon Substation, located on MCAS Miramar, to Peñasquitos Substation, located in the Torrey Hills community of San Diego. As discussed in greater detail in Objective No. 1d below, the Peñasquitos Substation is located very close to the electrical load center of SDG&E's system. That is to say, energy injected at the Peñasquitos Substation flows out nearly uniformly to serve customer load. The Proposed Project allows energy to flow directly from the Sycamore Canyon import gateway directly to the approximate San Diego load center, instead of forcing the same energy to flow indirectly to the load center through the existing 69 kV and 138 kV networks.

In addition to the studies referenced above, the CAISO performed an additional set of reliability studies examining the impact to the Southern California bulk power system in the event of a then-unexpected early retirement of SONGS. As SONGS was undergoing an extended unplanned outage at the time the 2012-2013 CAISO transmission planning process was underway, and it was not known when or if it would return to service, the CAISO used the results of this "SONGS Absence Study" to determine a "least regrets" plan of action for Midterm Needs<sup>9</sup>. The CAISO determined that:

This study identified several transmission system upgrades that, in addition to generation replacement and mitigation measures already underway, would assist in managing future unplanned extended outages to the SONGS plant. The upgrades included the following:

- Install a total of 650 MVAR of dynamic reactive support (i.e., static VAR compensator or synchronous condensers) in the vicinity of SONGS and at the Talega or San Luis Rey Substations; and
- Construct a Sycamore-Penasquitos 230 kV transmission line.

<sup>&</sup>lt;sup>9</sup> See section 3.5.6 of the CAISO Board-Approved Transmission Plan

<sup>(</sup>http://www.caiso.com/Documents/BoardApproved2012-2013TransmissionPlan.pdf)

See Figure 2-1, Bulk Power System between Sycamore Canyon and Peñasquitos Substations, for a graphic representation of the existing electric system between Sycamore Canyon and Peñasquitos Substations.



Figure 2-1: Bulk Power System between Sycamore Canyon and Peñasquitos Substations.

# 2.2.1.2 <u>Objective 1b: Promote Compliance with State of California Policy Goals with</u> Regards to Renewable Energy Integration and Once Through Cooling Retirement

The CAISO's FERC-approved tariff allows for approval of transmission projects for the purpose of advancing public policy goals. Section 24.4.6.6 of the CAISO's conformed tariff, effective October 1, 2013<sup>10</sup>, states:

The CAISO may evaluate transmission upgrade and addition elements needed to meet state or federal policy requirements or directives as specified in the Study Plan pursuant to Section 24.3.2(i). Policy-driven transmission upgrade or addition elements will be either Category 1 or Category 2. Category 1 are those elements which under the criteria of this section are found to be needed elements and are recommended for approval as part of the comprehensive Transmission Plan in the current cycle. Category 2 are those elements that could be needed to achieve state or federal policy requirements or directives but have not been found to be needed in the current planning cycle based on the criteria set forth in this section.

There are two significant State of California goals that would be advanced by the Proposed Project – integration of renewables in order to meet the State of California's RPS goal of 33 percent by 2020, and the retirement of OTC thermal units in San Diego and the Los Angeles area. Each aspect is discussed in detail below.

# **Objective 1b.1 – Renewable Integration**

The State of California policy, requiring utilities to supply at least 33 percent of their customer load with renewable energy by 2020, has led to a plethora of new renewable energy development in California. One of the richest sources of renewable energy in the state is the Imperial Valley area, which boasts some of the best solar resources in the nation, along with significant wind and geothermal resources. SDG&E will likely rely on renewable energy projects located in this area as well as further to the east of SDG&E's service territory to meet its renewable portfolio standard requirements.

The CAISO performed an analysis on the deliverability of renewable resources in the Arizona, Baja California, South San Diego County, and El Centro/Imperial renewable resource zones<sup>11</sup>. This analysis examined a "Base" portfolio, which used the CAISO's assumptions regarding the development of renewable generation in the renewable resource zones, as well as the CPUC-developed "Commercial Interest" and "Environmentally Constrained" portfolios.

The results of the CAISO's analysis is summarized as follows:

Accordingly, the policy assessment for [the] SDG&E area has identified that a new Sycamore-Peñasquitos 230 kV line is an alternative that meets policy-driven

<sup>&</sup>lt;sup>10</sup> http://www.caiso.com/Documents/ConformedTariff\_Oct1\_2013.pdf.

<sup>&</sup>lt;sup>11</sup> See section 4.4.2 of the 2012-2013 CAISO Board-Approved Transmission Plan

<sup>(</sup>http://www.caiso.com/Documents/BoardApproved2012-2013TransmissionPlan.pdf).
transmission needs in the Commercial Interest and Environmental Constrained portfolios. [...] The [CA]ISO recommends approval of this project in this 2012-2013 transmission planning cycle to ensure delivery of generation needed to meet the 33 percent RPS.<sup>12</sup>

#### **Objective 1b.2 – OTC Generation Retirement**

The State Water Resources Control Board (SWRCB) has mandated that generating units that use OTC technology meet more stringent environmental requirements or face closure. The SWRCB has issued a compliance schedule, as shown below:

Northern CA (~5,800 MW)

2011: Humboldt Bay and Potrero

2015: Morro Bay 3 & 4

2017: Contra Costa Units 6 & 7, Pittsburg 5 & 6, and Moss Landing 1, 2, 6 & 7

Southern CA (~8000 MW)

2012: South Bay (retired at the end of 2010)

2015: El Segundo, Harbor

2017: Encina

2019: Haynes

2020 and later: Huntington Beach, Redondo, Alamitos, Mandalay, Ormond Beach, and Scattergood

Based on this schedule, over 900 MW of OTC generation at the Encina plant in San Diego has a compliance date of 2017; over 5,000 MW in the Western Los Angeles basin have compliance dates in the early 2020s. The substantial loss of coastal generation will require more power to come from the east towards the load center, through the gateway substations identified above.

Recommendations from the CAISO Staff

Based on the RPS mandates and OTC retirement dates described above, the CAISO staff made the following recommendation<sup>13</sup>:

As part of the policy-driven study in the SDG&E area, three types of studies were carried out to examine the need for upgrades, the powerflow, stability and deliverability assessments. These three studies point to certain common needs that can be addressed by a single upgrade. The new Sycamore-Penasquitos 230 kV line will mitigate the following overloads observed in the Commercial Interest and Environmental Constrained portfolios:

<sup>&</sup>lt;sup>12</sup> See section 4.4.3 of the 2012-2013 CAISO Board-Approved Transmission Plan.

<sup>&</sup>lt;sup>13</sup> Ibid, pg. 295.

- Old Town-Peñasquitos 230 kV line;
- *Miguel-Mission #1 and #2 230 kV lines;*
- Mission-Old Town 230 kV line;
- Silvergate-Bay Boulevard 230 kV line;
- Sweetwater-Sweetwater Tap 69 kV line;
- Escondido-San Marcos 69 kV line;
- *Miguel 500/230 kV #1 and #2 transformers (SPS to trip generation needed in addition to proposed upgrade); and*
- Sycamore-Scripps 69 kV line.

The Project was approved by the CAISO Board as a Category 1 policy-driven project as a part of the 2012-2013 Transmission Expansion Plan on March 20, 2012<sup>14</sup>.

# 2.2.1.3 <u>Objective 1c: Reliably and Economically Meet Forecasted Load Growth for the</u> <u>San Diego Metropolitan Area</u>

Since release of the February 2012 Revised California Energy Demand Forecast, 2012-2022, the CEC has further adjusted the 1-in-10 peak demand forecast upward for the San Diego metropolitan area in August 2012<sup>15</sup>. The SDG&E Service Area load is expected to grow from 5,125 MW in 2013 to 6,056 MW in 2022. The Proposed Project meets this objective by:

- 1. Efficiently and effectively delivering energy directly to the San Diego load center, as described in the discussion of Objective 1d; and
- 2. Mitigating multiple transmission contingencies that are driven in part by forecast load growth in the San Diego load center, as described in the discussion of Objective 1a.

# 2.2.1.4 <u>Objective 1d: Deliver Imported Energy More Efficiently to the San Diego Load</u> <u>Center</u>

As noted above, the Proposed Project would allow for the more efficient delivery of energy to the San Diego load center by allowing energy to flow directly from the Sycamore Canyon Substation to the Peñasquitos Substation, which is located very close to SDG&E's electrical load center. Currently, power flowing between these two facilities flows indirectly and less efficiently through 69 kV and 138 kV power lines. A graphic representation of the distribution of customer load as it exists today is shown in Figure 2-2, 2013 Load Distribution. This shows the location of each substation serving customer load in the SDG&E system. The bubble representing each substation is sized according to the relative amount of load it serves.

<sup>&</sup>lt;sup>14</sup> Ibid, Table 7.2-2, pg. 374.

<sup>&</sup>lt;sup>15</sup> Final California Energy Demand Forecast, 2012-2022, Mid Case, published August, 2012.



Figure 2-2: 2013 Load Distribution

When the geographic center of each customer-serving substation is calculated and weighted by the amount of load served, it is possible to determine the approximate "electrical center" of SDG&E's transmission system. Essentially, energy injected at the electrical center would flow more or less evenly out to all customer loads. As Figure 2-2 shows, the electrical load center of the SDG&E system is very close to the Peñasquitos Substation.

A reasonable question to ask would be whether the load center would move as the overall San Diego regional load increases. Figure 2-3, 2022 Load Distribution, represents the electrical center as calculated for the 2022 forecast year. As can be seen, the load center varies almost not at all and remains very close to Peñasquitos Substation.

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Figure 2-3: 2022 Load Distribution

A measure of the effectiveness of the Proposed Project would be to analyze how much energy is projected to flow across it when it is placed in service. Load flow studies for the proposed inservice date of 2017 indicate that under normal heavy summer conditions, with all lines in service, up to 802 MVA would flow across the new Sycamore to Peñasquitos 230 kV Transmission Line<sup>16</sup>. This is a significant portion of the load served by SDG&E, and approaches 90 percent of the 912 MVA normal rating of the Proposed Project. This is a strong indication that the line would effectively connect the import gateway to the load center.

#### 2.2.2 Objective 2: Locate the Proposed Project's Facilities within Existing Transmission and Power Line Corridors, SDG&E ROW, Utility Owned Property, and City of San Diego Franchise Position.

Another primary objective of the Proposed Project is to locate the proposed facilities within existing SDG&E ROW or franchise positions and within areas that already include electric transmission and power facilities, to the extent feasible.

The construction of the new 230 kV transmission line between Sycamore Canyon and Peñasquitos Substations would utilize approximately 13.9 miles of existing ROW, and approximately 2.8 miles of franchise ROW in the City of San Diego along an existing street (Carmel Valley Road). The Proposed Project therefore requires no additional ROW, which is consistent with state law guiding the use of existing transmission corridors, known as the

<sup>&</sup>lt;sup>16</sup> Based on 2013 year SDG&E Grid Assessment Study.

Garamendi Principle<sup>17</sup>. Only minor amendments to existing ROWs would be required to implement the Proposed Project (see Section 3.6, Permanent Land and Right-of-Way Requirements). As a result, the Proposed Project would meet Objective 2.

# 2.3 CONCLUSION

The Proposed Project effectively and efficiently meets all of the objectives outlined above and is consistent with the Proposed Project identified in the CAISO's 2012-2013 Transmission Plan. The Proposed Project also maximizes the utilization of existing facilities and land, including existing ROW, utility owned property, existing franchise rights, existing structures, and existing access road networks.

<sup>&</sup>lt;sup>17</sup> Garamendi Principle – Transmission Siting SB 2431 (Garamendi), Chapter 1457, 62, Statutes of 1988: 1. Encourage the use of existing ROW by upgrading existing transmission facilities where technically and economically feasible; 2. When construction of new transmission lines is required, encourage expansion of existing ROW, when technically and economically feasible; and 3. Provide for the creation of new ROW when justified by environmental, technical, or economic reasons defined by the appropriate licensing agency.

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Appendix 3-B	Detailed Route Map
Appendix 3-C	Typical Structure Diagrams

# **3.0 PROPOSED PROJECT DESCRIPTION**

#### 3.1 PROPOSED PROJECT OVERVIEW

SDG&E is a regulated public utility that provides electric service to three million customers within a 4,100 square mile service area, covering parts of two counties and 25 cities in the San Diego area. In an effort to increase the efficiency and supply of renewable generated power to the CAISO grid, CAISO has identified a policy-driven need for a new 230 kV transmission line to connect the existing SDG&E Sycamore Canyon and Peñasquitos Substations. In response to the CAISO Request for Proposal (RFP) for this new 230 kV transmission line, SDG&E proposes to construct and operate a new, approximately 16.7-mile 230 kV transmission line (TL 230XX<sup>1</sup>) between the existing SDG&E Sycamore Canyon and Peñasquitos Substations (Proposed Project)<sup>2</sup>. The Proposed Project would also include the consolidation of two existing 69 kV power lines onto new double-circuit, steel structures that would replace existing, predominantly wood structures. All new transmission line facilities would be located within existing SDG&E ROW or within franchise position<sup>3</sup> within existing public roadways<sup>4</sup>.

The Proposed Project would include the following primary components, which are described in more detail in Section 3.3, Proposed Project Facilities:

- Segment A Construction of approximately 8.31 miles of new 230 kV transmission line on new tubular steel poles all within existing SDG&E ROW located between the existing Sycamore Canyon Substation and Carmel Valley Road;
- Segment B Install new, approximately 2.84-mile 230 kV underground transmission line in Carmel Valley Road utilizing existing franchise position for almost the entire segment;
- Segment C Install new 230 kV conductor on the existing 230 kV steel structures and one new tubular steel pole all within existing SDG&E ROW located between Carmel Valley Road and Peñasquitos Junction<sup>5</sup>;

<sup>&</sup>lt;sup>1</sup> Tie-Line number to be assigned at a later date.

<sup>&</sup>lt;sup>2</sup> The CAISO selected SDG&E's proposal to construct and operate the Proposed Project following their 2012-2013 Transmission Plan Competitive Solicitation Process.

<sup>&</sup>lt;sup>3</sup> SDG&E has a franchise agreement with the City of San Diego as well as all other cities and counties within its service territory. The Franchise Act of 1937 (Public Utilities Code, Sec 6201) is generally the model for all of these agreements that SDG&E and other utilities have in order to utilize public streets. SDG&E agreements are generally long term contracts, typically 30 to 50 years and have always been renewed. SDG&E pays a percentage of its gross revenue earned in that city to the city as a franchise fee. What determines the elements of the gross revenue are usually defined in the franchise agreement.

<sup>&</sup>lt;sup>4</sup> Note that one small section of underground rights through existing SDG&E ROW would need to be acquired through an amendment to the existing ROW easement at this location.

<sup>&</sup>lt;sup>5</sup> The Peñasquitos Junction refers to confluence of existing electric power and transmission lines where existing power lines TL 13804, TL 6920, and TL 675 turn from a north/south alignment and travel west into the Peñasquitos Substation.

- Segment D Install new 230 kV conductor on existing double-circuit 230 kV steel lattice towers all within existing SDG&E ROW located between the Peñasquitos Junction and the existing Peñasquitos Substation; and
- Minor modifications of the existing Sycamore Canyon and Peñasquitos Substations to allow for connection of the new 230 kV transmission line.

The CPUC will be the lead agency for the Proposed Project under the CEQA. SDG&E is submitting this PEA in support of its Application for a CPCN.

# 3.2 PROPOSED PROJECT LOCATION, REGIONAL CONTEXT, AND REGIONAL ELECTRIC SYSTEM

# 3.2.1 Location

As shown in Figure 3-1, Project Vicinity Map, the Proposed Project components are located within the cities of San Diego and Poway, California and on the extreme northern portion of MCAS Miramar. The Proposed Project route traverses both developed residential and commercial areas as well as densely vegetated undeveloped areas. The Proposed Project would result in a new 230 kV transmission line that would connect the existing Sycamore Canyon and Peñasquitos Substations through utilization of a combination of new and existing SDG&E facilities (e.g., poles), existing ROWs, and existing City of San Diego franchise position.

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#### Sycamore to Peñasquitos 230 kV Transmission Line Project **Project Vicinity Map** SDG&E is providing this map with the understanding that the map is not survey Figure 3-1 grade. Certain technology used under license from AT&T Intellectual Property Proposed Route I, L.P. Copyright ©1998 – 2007 AT&T Intellectual Property 1, L.P. All Rights Reserved. 10 20 30 Sempra Energy" utilit Date: 3/13/2014 Sources: SDG&E, 2013; National Geographic, Esri, DeLorme, NAVTEQ, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, IPC

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# BACK OF FIGURE 3-1

# 3.2.2 Existing and Proposed Electric System

Figure 3-2, Existing System One-Line Diagram, depicts the existing electric system within the Proposed Project ROWs between the Sycamore Canyon and Peñasquitos Substations. As shown in Figure 3-2, there are currently three power lines entering the Peñasquitos Substation from the Proposed Project alignment/ROW and two power lines and one transmission line entering the Sycamore Canyon Substation from the Proposed Project alignment/ROW. Both of these substations are existing 230/138/69 kV substations that also have other transmission and power line connections that are not directly related to the Proposed Project. The Proposed Project would result in one new 230 kV transmission line that would connect to each substation as shown in Figure 3-3, Proposed System One-Line Diagram.

# **3.3 PROPOSED PROJECT FACILITIES**

The Proposed Project includes the construction and operation of a new, approximately 16.7 mile 230 kV transmission line. Table 3-1, Proposed Project Cost Estimate, presents the estimated total cost for construction of the Proposed Project.

Proposed Project Cost Component	Approximate Cost		
Engineering, Procurement and Construction	\$76,300,000		
Substation	\$3,500,000		
Environmental/Regulatory	\$10,200,000		
Public/External Affairs	\$2,700,000		
Other Project Costs	\$1,300,000		
Overheads	\$11,100,000		
Allowance for Funds Used During Construction (AFUDC)	\$7,000,000		
Subtotal Project Cost Estimate	\$112,100,000		
Contingency (20 percent)	\$22,400,000		
Grand Total Project Cost Estimate	\$134,500,000		
Notes: <sup>1</sup> All costs are approximate and based on preliminary engineering. Final costs will be determined upon approved final project scope and contracting costs.			
Source: SDG&E			

Table 3-1: Pro	oposed Project	Cost Estimate
----------------	----------------	---------------

For the purposes of this discussion, the Proposed Project is divided into four segments based upon the type and location of proposed facilities. The Proposed Project segments are listed below in Table 3-2, Proposed Project Transmission Line Segments and are depicted on Figure 3-3 and Figure 3-4, Project Overview Map.

Segment No. <sup>1</sup>	Length (miles)	Description of Work
А	8.31	Construction of approximately 36 new double-circuit 230 kV and two 138 kV tubular steel poles between the existing Sycamore Canyon Substation and Carmel Valley Road and two new 230 kV tubular steel poles for TL 23041 connection at the Sycamore Canyon Substation. All new poles to be installed are located within existing SDG&E ROW. Install new 230 kV conductor on new double-circuit 230 kV tubular steel poles. Remove approximately 42 wood H-frame structures, two tubular steel poles, one double-circuit cable pole, and two single-circuit wood mono poles. Relocate existing TL 13820 and TL 13825 <sup>2</sup> to second position on the new double-circuit 230 kV tubular steel poles. Existing TL 13820 would be installed in an underground position as it enters the Sycamore Canyon Substation, allowing for the removal of two existing 138 kV structures.
В	2.84	Construction of underground transmission line, including trenching and trenchless techniques, within Carmel Valley Road (existing franchise position). Construction of 230 kV tubular steel cable pole structures at two locations. Remove one double-circuit steel lattice tower at the western end.
С	2.19	Installation of new 230 kV conductor on vacated position on existing double- circuit 230 kV steel structures (10 steel lattice towers) and on one new tubular steel pole that would replace an existing steel lattice tower at the Peñasquitos Junction. All structures are located within existing SDG&E ROW between Carmel Valley Road and the Peñasquitos Junction. Existing TL 23001 and TL 23004 would be reconductored and bundled on the east side of the existing structures and would remain designated as TL 23004.
D	3.34	Installation of new 230 kV conductor on vacated position on existing double- circuit 230 kV steel structures (15 steel lattice towers and one tubular steel pole) located between the Peñasquitos Junction and the Peñasquitos Substation. Existing 69 kV power lines (TL 675 and TL 6906) would be consolidated onto approximately 17 new 69 kV, double-circuit tubular steel poles that would replace 16 existing 69 kV wood H-frame structures and five wood monopole structures that currently support TL 675 and TL 6906. Construction of two new 69 kV tubular steel cable poles that would replace existing wood 69 kV cable poles located immediately outside of the Peñasquitos Substation.
Notes:		

Table 3-2: Proposed Project Transmission Line Segments

Table contents based upon preliminary engineering and are subject to change. <sup>1</sup> Refer to Figure 3-4 for segment locations. <sup>2</sup> TL 13825 was recently renumbered to 13811 independent of the Proposed Project. All references to TL 13825 refer to TL 13811.



Date: 3/13/2014 A 🔏 Sempra Energy<sup>\*</sup>utility

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# BACK OF FIGURE 3-2



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# BACK OF FIGURE 3-3



Sources: Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstpo, and the GIS User Community, Sources: Esri, DeLorme, USGS, NPS

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#### BACK OF FIGURE 3-4

The Proposed Project segments are further described in the following subsections.

Appendix 3-A, Pole Detail Table, provides a list of all proposed new 230 kV, 138 kV and 69 kV poles by type (all new poles will be dulled galvanized steel), all poles to be removed (including replacements), and existing poles to be utilized in place. Appendix 3-B, Detailed Route Map, provides a map with the location of all poles to be installed, removed, and utilized in place. Typical drawings of the types of structures to be installed and removed are included in Appendix 3-C, Typical Structure Diagrams.

#### 3.3.1 Segment A – Sycamore Canyon Substation to Carmel Valley Road

Segment A of the Proposed Project includes two major components, as follows:

- 1. Construct approximately 8.31 miles of new a 230 kV transmission line between the Sycamore Canyon Substation and Carmel Valley Road, including the construction of approximately 38 new 230 kV and 2 new 138 kV tubular steel poles; and
- 2. Relocate existing 138 kV power lines (TL 13820 and TL 13825<sup>6</sup>) to second position on new 230 kV steel poles and connect to Sycamore Canyon Substation utilizing an underground alignment that is approximately 850 feet in length.

These two components are further described below. Table 3-3, Segment A Scope of Work, lists the facilities included within Segment A of the Proposed Project, including new overhead transmission line structures to be installed, existing overhead power line structures to be removed, and new underground facilities to be installed.

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<sup>&</sup>lt;sup>6</sup> TL 13820 will be collocated on the new 230 kV structures between the Sycamore Canyon Substation and the Chicarita Substation, where TL 13820 terminates after Structure No. P30. TL 13825 would leave Chicarita Substation via Structure No. P31 and would be collocated on the new 230 kV structures from Chicarita Substation north until the end of Segment A at Carmel Valley Road.

Structure Type	Installed	Structure Number <sup>1</sup>	Removed
230 kV single-circuit tubular steel poles	1	P1	
230 kV double-circuit cable pole <sup>2</sup>	1	P3	
230 kV double-circuit tubular steel poles	36	P2, P4 – P29 & P32 – P40	
138 kV single-circuit tubular steel poles	2	P30 & P31, R31 & R32	2
138 kV single-circuit wood H-frame structures		R4 – R30 & R33 – R46	41 <sup>3</sup>
138 kV single-circuit wood pole		R2 & R3	$2^4$
138 kV double-circuit cable pole		R1	1
138 kV underground	850 feet	N/A	
Totals	40 poles, 850 feet	N/A	46 poles

#### Table 3-3: Segment A Scope of Work

Notes:

Table contents based upon preliminary engineering and are subject to change.

<sup>1</sup> Refer to Appendix 3-B for location of proposed poles. All new structures have a "P" prefix, all existing structure to be removed have an "R" prefix, and any structures to be utilized in place have an "E" prefix.

 $^{2}$  Structure No. P3 would be a combination pole that would serve as a cable pole for existing TL 13820 and a standard (overhead) pole for the new 230 kV transmission line.

<sup>3</sup> Five of these poles would be topped above the distribution underbuild and not completely removed.

<sup>4</sup>One additional existing 138 kV wood power line pole would be topped above 69 kV circuits.

# 3.3.1.1 New 230 kV Transmission Line

Within Segment A, the proposed new 230 kV transmission line would be installed on approximately 36 new, double-circuit, dulled galvanized tubular steel poles. These new 230 kV steel poles would be located within an existing 200-foot SDG&E ROW that runs generally northsouth from the Sycamore Canyon Substation to Carmel Valley Road where the proposed route turns west. The new 230 kV transmission line would be constructed utilizing bundled (two conductors per phase) 900 thousand circular mills (kcmil) aluminum, steel support/alumoweld (ACSS/AW) (Canary) conductor and polymer insulators. The conductor would be installed in a vertical phase configuration with 18-inch horizontal bundled subconductor configuration. The new insulators would be installed in a V-string configuration. The new 230 kV structures would also have new, 48-count fiber optic OPGW installed along the top of the new 230 kV structures. The vertical conductor spacing is anticipated to be 18 feet and the minimum vertical ground distance to the first conductor would be 30 feet (25 feet where only pedestrian access is present). The new OPGW would serve as a communication cable and shield wire. Vibration dampers would also be installed on the conductors near the structures, as needed. The new 230 kV steel poles would be installed with an average span length of approximately 1,150 feet and would generally be installed in a soldiered<sup>7</sup> alignment with the existing 230 kV structures located within the same ROW.

<sup>&</sup>lt;sup>7</sup> The term "soldiered" refers to the practice of installing parallel structures in immediately adjacent locations in an effort to maintain electrical clearance between overhead conductors of parallel circuits during wind conditions.

Currently, a 69 kV power line (TL 6920) is co-located with an existing 230 kV transmission line (TL 23051) on existing 230 kV structures (mixture of steel lattice towers and tubular steel poles) located along the eastern edge of the existing ROW (see Figure 3-5, Segment A Existing ROW Cross Section) and existing 138 kV power lines, TL 13820 and TL 13825, are located on wood H-frame structures along the western edge of the ROW. The proposed new 230 kV transmission line would utilize existing structures (Structure Nos. E1, E2 and E3) to connect to the Sycamore Canyon Substation. Two of these structures (Structure Nos. E2 and E3) are currently supporting the existing 230 kV transmission lines (TL 23051) and only one structure (Structure No. E3) would be used to connect the existing line to the Sycamore Canyon Substation.



 Figure 3-5:
 Segment A Existing ROW Cross Section (View North)

The existing TL 13820/13825 wood H-frame structures would be removed to make room for the new double-circuit steel 230 kV structures that would support the new 230 kV transmission line and the relocated TL 13820/13825 power lines. The new 230 kV structures would be located between the existing TL 23051 and TL 13820/13825 structures, approximately 30 feet east of the existing centerline of the 138 kV wood H-frame structures. The final ROW configuration is depicted in Figure 3-6, Segment A Proposed ROW Cross-Section.



Figure 3-6: Segment A Proposed ROW Cross Section (View North)

# 3.3.1.2 <u>TL 13820/13825 Relocation</u>

As shown on Figure 3-5, the existing TL 13820/13825 is also located within the ROW, utilizing wood H-frame structures located along the western edge of the ROW. As part of the development of Segment A of the Proposed Project, TL 13820/13825 would be relocated to the second, vacant position of the new 230 kV tubular steel poles (refer to Figure 3-6). The relocated TL 13820/13825 would be installed on the new 230 kV structures utilizing polymer insulators (existing insulators are made with porcelain) and corona rings and dampers would be utilized as needed. In order to allow the connection of the relocated TL 13820/13825 at the Sycamore Canyon Substation with respect to the overhead new and existing 230 kV transmission lines, an approximately 850-foot segment would be installed in an underground position along an existing access road from Structure No. P3 to the Sycamore Canyon Substation.

# 3.3.1.3 <u>TL 23041 Relocation</u>

In order to create space for the connection of the new 230 kV transmission line at the Sycamore Canyon Substation, existing transmission line 23041 would be moved to two new 230 kV structures (Structure Nos. P1 and P2) immediately within and adjacent to the substation (refer to Appendix 3-B).

# 3.3.2 Segment B – Carmel Valley Road

Segment B of the Proposed Project includes two major components, as follows:

1. Construction of approximately 2.84 miles of new 230 kV underground transmission line, mainly through existing Carmel Valley Road (franchise position); and

2. Construct new 230 kV cable pole structures at the east and west ends of the proposed new underground transmission line.

Segment B of the Proposed Project includes the construction of new, 230 kV underground transmission line to be located primarily within franchise position<sup>8</sup> in Carmel Valley Road. Segment B also includes the installation of two new 230 kV dulled galvanized steel cable pole structures to provide transition from underground to overhead systems<sup>9</sup> (refer to Appendix 3-C).

The current plan for the new cable pole structure on the west end of Segment B is to replace an existing steel lattice tower (Structure No. R48) with a new double-circuit 230 kV tubular steel pole (Structure No. P42) that would act as a cable pole structure for the new 230 kV circuit and a dead end overhead structure for the existing 23004/01 transmission lines.

The new cable pole on the east end of Segment B (Structure No. P41) would utilize a vertical phase configuration similar to Structure No. P42 on the west end of Segment B and would be located north of Carmel Valley Road, within an existing sports park (refer to Appendix 3-B). The underground transmission line would connect from the median in Carmel Valley Road to Structure No. P41 utilizing the access driveway to the park, with an access vault installed near the park entrance.

Both proposed new 230 kV cable pole structures (Structure Nos. P41 and P42) would be installed with lightning arrestors. It is anticipated that the new 230 kV underground transmission line would utilize a bundled (two cables per phase) configuration. The cables are anticipated to be segmented copper conductor, insulated with cross linked polyethylene (XLPE), 4,000 kcmil in size. The new 230 kV cables would be installed in a new duct bank package. The package would consist of eight 8-inch conduits for electrical cable and four 2-inch conduits for telecommunications cable. A total of twelve ducts would be included in the package. Six of the 8-inch ducts would be utilized for the bundled 230 kV cable (2 cables/phase). The two remaining 8-inch ducts would be installed as spares. One of the 2-inch conduits would be utilized to house a fiber optic communication cable leaving the additional three 2-inch ducts for future telecommunication cables. The duct package would be protected by a 2,000 pounds per square inch (psi) concrete encasement to 6 inches above the ducts. The remainder of the trench would be filled with a flowable thermal backfill slurry up to one foot below finished grade (refer to Appendix 3-C for a typical duct package diagram). Splice vaults would be installed approximately every 1,800 feet along the underground alignment (refer to Appendix 3-C for a diagram of a typical splice vault). The new splice vaults would have approximate dimensions of 24 feet (length), by 10 feet (width), by 10 feet (depth) and would be designed to accommodate all local and federal safety and loading requirements including the American Association of State Highway and Transportation Officials highway loading guidelines.

Table 3-4, Segment B Scope of Work, lists the facilities included within Segment B of the Proposed Project, including new cable pole structures to be installed, existing overhead transmission line structures to be removed, and proposed new underground transmission line packages.

<sup>&</sup>lt;sup>8</sup> SDG&E has an existing franchise agreement with the City of San Diego.

<sup>&</sup>lt;sup>9</sup> "Cable poles" are structures that are used to transition electric utility lines from underground position to an overhead position and vice versa.

Structure Type	Installed	Structure Number <sup>1</sup>	Removed
230 kV steel cable pole structures	2	P41 & P42	
230 kV steel lattice tower		R48	1
138 kV single-circuit wood H-frame structures		R47	1
230 kV underground package	14,995 feet	N/A	
230 kV splice vaults	10	V1-V10	
Totals	2 poles, 14,995 feet	N/A	1 tower, 1 pole
Notes: Table contents based upon preliminary engineering at	nd are subject to ch	ange	

#### Table 3-4: Segment B Scope of Work

<sup>1</sup>Refer to Appendix 3-B for location of proposed poles.

# 3.3.3 Segment C – Carmel Valley Road to Peñasquitos Junction

Segment C of the Proposed Project includes four major components, as follows:

- 1. Reconductor and bundle approximately 2.19 miles of existing 230 kV circuit between Carmel Valley Road and Peñasquitos Junction;
- 2. Replace one existing double-circuit 230 kV steel lattice tower (Structure No. R49) with a new double-circuit 230 kV tubular steel pole (Structure No. P43) at the Peñasquitos Junction:
- 3. Remove existing shield wire from steel lattice towers and install new OPGW from new cable pole (Structure No. P42) to proposed new tubular steel pole (Structure No. P43) at Peñasquitos Junction; and
- 4. Install new bundled 230 kV conductor on vacated position of the existing 230 kV steel lattice towers and new 230 kV tubular steel pole.

These components are further discussed below. Table 3-5, Segment C Scope of Work, lists the facilities included within Segment C of the Proposed Project, including new overhead transmission line conductor and structures to be installed and existing overhead transmission line conductor and structures to be removed.

Structure Type	Installed	Structure Number <sup>1</sup>	Removed	
Double-circuit 230 kV tubular steel poles	1	P43		
Double-circuit 230 kV steel lattice towers		R49	1	
Totals	1 pole	N/A	1 tower	
Notes:				
Table contents based upon preliminary engineering and are subject to change.				

 Table 3-5:
 Segment C Scope of Work

Refer to Appendix 3-B for location of proposed structures and conductor.

# 3.3.3.1 Consolidation of Existing 230 kV Transmission Lines

To facilitate installation of the new 230 kV transmission line through Segment C of the Proposed Project alignment, a vacant position would be created on existing 230 kV steel lattice towers located within a 100-foot existing SDG&E ROW that runs general north-south past Carmel Valley Road and the Peñasquitos Junction. There are currently two 230 kV transmission lines supported by the existing 230 kV steel lattice towers (TL 23001 and 23004) in this area (see Figure 3-7, Segment C Existing Cross Section). These two lines connect the existing San Luis Rey and Mission Substations.



Figure 3-7: Segment C Existing ROW Cross Section (View North)

However, current demand and power flow conditions have significantly changed the net flow on these two lines, and SDG&E is therefore proposing to consolidate them into one bundled transmission circuit. The consolidated 23004/23001 transmission line would result in no net reduction in capacity, and would result in an overall greater utilization of these transmission assets. In order to accomplish this consolidation, the following five steps would be required:

- 1. Jumper<sup>10</sup> TL 23001 and TL 23004 together to create one bundled 230 kV circuit between San Luis Rey Substation and Carmel Valley Road.
- 2. Reconductor and bundle approximately 2.19 miles of 230 kV circuit between Carmel Valley Road and Peñasquitos Junction.
- 3. Jumper TL 23001 and TL 23004 together to create one bundled 230 kV circuit between Peñasquitos Junction and the Mission Substation.

<sup>&</sup>lt;sup>10</sup> "Jumpered" lines refers to two lines (or sets of conductors) that are connected laterally in order to form an electrical connection.

- 4. Split existing three terminal TL 23011 at Encina Hub in order to create two 2-terminal lines; one connecting Encina and San Luis Rey Substations and the second connecting Palomar Energy and San Luis Rey Substations.
- 5. Replace the existing shield wire located on top of the existing steel lattice towers with new OPGW from the new cable pole (Structure No. P42) to the Peñasquitos Junction (Structure No. P43).

The reconductor and bundle between Carmel Valley Road and the Peñasquitos Junction is the specific step that would create a vacant position on the existing 230 kV steel lattice towers. These two 230 kV circuits would be bundled into one functional circuit which would retain the TL 23004 designation. The reconductored TL 23004 between Carmel Valley Road and the Peñasquitos Junction would utilize bundled 1033 Aluminum Conductor Steel Reinforced (ACSR/AW) (Ortolan) or equivalent conductor and new, polymer insulators in a V-string configuration.

# 3.3.3.2 <u>New 230 kV Transmission Line</u>

Once the consolidation of TL 23001 and TL 23004 is complete, the vacant position on the steel lattice towers would be utilized to support the proposed new 230 kV transmission line (see Figure 3-8, Segment C Proposed ROW Cross Section). At the Peñasquitos Junction, one existing double-circuit 230 kV steel lattice tower would be replaced with a new double-circuit 230 kV tubular steel pole to allow for adequate clearance of the new 230 kV conductor over the adjacent 138 kV power line. As with Segment A, the new 230 kV transmission line installed on Segment C would utilize bundled 900 kcmil ACSS/AW (Canary) conductor. Additionally, a single OPGW would be installed on the existing lattice towers. This OPGW would serve as communications and as lightning shielding for the conductor below.



 Figure 3-8:
 Segment C Proposed ROW Cross Section (View North)

#### 3.3.4 Segment D – Peñasquitos Junction to Peñasquitos Substation

Segment D of the Proposed Project includes four major components, as follows:

- 1. Install approximately 3.34 miles of new 230 kV overhead transmission line on existing 230 kV steel lattice towers located within existing SDG&E ROW;
- 2. Relocate two existing 69 kV power lines (TL 675 and TL 6906) onto approximately 17 new, double circuit, dulled galvanized tubular steel poles that would replace 20 existing 69 kV wood structures;
- 3. Replace two existing 69 kV single circuit cable poles with single circuit tubular steel cable poles;
- 4. Relocate one existing 138 kV power line (TL 13804) from north side of existing steel lattice towers to south side of existing steel lattice towers; and
- 5. Replace existing shield wire with new OPGW on existing 230 kV steel lattice towers.

These components are further discussed in the following subsections. Table 3-6, Segment D Scope of Work, lists the facilities included within Segment D of the Proposed Project, including new tubular steel poles to be installed, existing overhead power line structures to be removed, new cable pole structures to be installed, and new 230 kV conductor to be installed.

Structure Type	Installed	Structure Number <sup>1</sup>	Removed
69 kV double-circuit tubular steel poles	17	P44 - P60	
69 kV wood H-frame structures		R54 - R69	16
69 kV single-circuit wood poles		R50 – R53 & R72	5
69 kV single-circuit steel cable poles	2	P61 & P62	
69 kV single-circuit wood cable poles		R70 & R71	2
Totals	19 poles	N/A	23 poles
Notes:			
Table contents based upon preliminary engineering and are subject to change.			

# Table 3-6: Segment D Scope of Work

<sup>1</sup>Refer to Appendix 3-B for location of proposed poles.

# 3.3.4.1 Relocation of TL 675 and TL 6906

Existing power line TL 675 is currently located on approximately 16 69 kV wood H-frame structures and five single-circuit monopole structures that connect the Peñasquitos Junction and the Peñasquitos Substation (see Figure 3-9, Segment D Existing ROW Cross Section). TL 675 would be relocated to approximately 17 new, double-circuit dulled galvanized tubular steel poles that would replace the existing wood H-frame and single-pole structures (see Figure 10, Segment D Proposed ROW Cross Section). Existing power line TL 6906 is currently located on the northern position of the existing 230 kV steel lattice towers that also connect the Peñasquitos Junction and Peñasquitos Substation (refer to Figure 3-9). TL 6906 would be relocated to the new double-circuit 69 kV tubular steel poles (refer to Figure 3-10). The relocation of TL 6906 would create a vacant position on the existing 230 kV structures.

#### 3.3.4.2 <u>Relocation of TL 13804</u>

Existing power line TL 13804 is currently located on the south side of the existing 230 kV steel lattice towers (refer to Figure 3-9) that connect the Peñasquitos Junction and the Peñasquitos Substation. As part of the Proposed Project, TL 13804 would be relocated to the north side of the existing 230 kV steel lattice towers (refer to Figure 3-10). This relocation would create a more efficient installation and operation of the new 230 kV transmission line.



 Figure 3-9:
 Segment D Existing ROW Cross Section (View West)

# 3.3.4.3 Installation of New 230 kV Conductor and OPGW

New 230 kV conductor would be installed on the vacant position (southern) created on the existing 230 kV steel lattice towers by the relocation of the existing power lines described above (refer to Figure 3-10). As with the other segments of the Proposed Project, the new 230 kV conductor would be bundled 900 ACSS/AW (Canary). Additionally, the existing shield wire would be replaced with a new OPGW at the top of the existing 230 kV steel lattice towers.



Figure 3-10: Segment D Proposed ROW Cross Section (View West)

# 3.3.5 Associated Substation Work

Minor alterations, mainly in the form of alterations to substation and bay arrangements, would be required at two existing substations, as further described in the following subsections. The Proposed Project does not include the construction of any new substation facilities.

# 3.3.5.1 Sycamore Canyon Substation

In order to connect the proposed new 230 kV transmission line to the Sycamore Canyon Substation, the following steps would be required:

- The new 230 kV transmission line would be supported by three existing tubular steel poles (Structure Nos. E1, E2 and E3) to connect to the substation;
- Five existing transmission lines (TL 23021, 23041, 23051, 23054, and 23055) would be transferred from existing bay positions to new bay positions to accommodate the new 230 kV transmission line;
- Approximately two new 230 kV tubular steel poles<sup>11</sup> (Structure Nos. P1 and P2) would be required within and immediately adjacent to the substation to accommodate the transferring of existing 230 kV transmission lines (TL 23041);
- Relocate existing 138 kV power line (TL 13820) to an underground position approximately 850 feet in length from Structure No. P3 to substation connection;
- One existing bay would require the addition of one circuit breaker and two disconnects; and
- One CVT would be installed to be used for synch potential.

# 3.3.5.2 <u>Peñasquitos Substation</u>

In order to connect the proposed new 230 kV transmission line to the Peñasquitos Substation, the following steps would be required:

- The new 230 kV transmission line would terminate into a vacant position in the substation via a vacant position on an existing tubular monopole steel pole north of the substation fence line;
- The proposed new 230 kV transmission line termination bay would require the addition of two circuit breakers and four disconnects;
- Existing 69 kV power lines TL 675 and TL 6906 would connect to the substation from new steel cable poles and existing ductbanks<sup>12</sup>; and
- One CVT would be installed to be used for synch potential.

<sup>&</sup>lt;sup>11</sup> Design of the Sycamore Canyon Substation getaways is preliminary, and final design may require additional work at the substation site to accommodate connection of the new 230 kV transmission line.

<sup>&</sup>lt;sup>12</sup> Design of the Peñasquitos Substation getaways is preliminary, and final design may require additional vaults or trenching if the existing ductbanks cannot be utilized in place.

#### 3.3.5.3 Minor Substation Alterations

Minor alterations may be required at the existing Sycamore Canyon, Peñasquitos, San Luis Rey, Encina, Palomar Energy and Mission Substations. Minor alterations may include some combination of the following:

- Adjust relays to project the stubs of any abandoned bus systems;
- Adjust relays in order to maintain protection systems; and
- Upgrade protection on remaining transmission lines to improve reliability.

# 3.3.6 Proposed Transmission and Power Line Facilities

The Proposed Project includes the construction of several types of transmission and power line facilities, including overhead structures and underground duct packages. Each facility being proposed for installation is briefly described in the following subsections.

#### 3.3.6.1 <u>Transmission and Power Line Structures</u>

It is anticipated that all of the proposed new overhead transmission and power line structures would be tubular steel poles constructed using either placed concrete pier foundations or micropile foundations. Micropile foundations may be utilized based on geologic conditions and/or where access is limited and the sufficient room for construction of concrete pier foundations is not available. All new poles would be fabricated with dulled galvanized steel. Table 3-7, Typical Pole Dimensions, outlines the average dimensions for new poles to be installed as part of the Proposed Project.

Dolo Tuno	Typical (Average) Height (feet)	Approximate Pole Diameter (feet)	
r ole Type		Pole Base	Pole Top
230 kV Tubular Steel Pole	120	5-6	2-3
230 kV Steel Cable Pole	$160^{1}$	6-8	2-3
138 kV Tubular Steel Pole	75	4-5	2
69 kV Tubular Steel Pole	95	3-4	1.5
69 kV Steel Cable Pole	70	3-5	1.5

 Table 3-7:
 Typical Pole Dimensions

Notes:

Table contents based upon preliminary engineering and are subject to change.

<sup>1</sup>This average height is for a vertical configuration, double-circuit cable pole such as Structure No. P41.

Source: SDG&E

# 3.3.6.2 <u>Distribution Underbuild</u>

Approximately five existing 138 kV wood H-frame structures located on the northern end of Segment A currently have distribution underbuild. The wood H-frame structures would be removed and replaced with new tubular steel double-circuit 230 kV structures. The distribution underbuild portion of the existing wood H-frame structures would remain in place; the existing wood H-frame structures would be cut-off above distribution circuits and the remaining portion

of the wood H-frame structure would be removed. No new Proposed Project structures would have distribution underbuild.

# 3.3.6.3 <u>Reconductoring</u>

As described in Sections 3.3.1 through 3.3.4, the Proposed Project includes the relocation and consolidation of numerous existing SDG&E power and transmission lines within existing SDG&E ROW. Table 3-8, Relocated/Consolidated Power and Transmission Lines, outlines details for each of the existing lines that would be relocated as part of the Proposed Project. For each transmission or power line that would be relocated as part of the Proposed Project, new conductor would be installed that would match the existing conductor, as detailed in Table 3-8.

Line Designation	Project Segment	Proposed Conductor <sup>1</sup>	Scope of Work
TL 13820 & TL 13825 A	А	636 ACSR/AW	Relocated from existing wood H-frame structures to new double-circuit 230 kV steel poles.
	(Rook)		
TL 23001 & C TL 23004		1033 bundled	Consolidated on east side of existing double-circuit
	С	ACSR/AW	230 kV steel lattice towers.
	(Ortolan)		
		636 bundled	Relocated from south side of existing 230 kV steel
TL 13804	D	ACSR/AW	lattice towers to north side of same structures.
		(Rook)	
TL 675 D		1033	Relocated from existing 69 kV wood H-frame
	D	ACSR/AW	structures to new double-circuit 69 kV steel poles
	(Ortolan)		
TL 6906 D		1033	Relocated from existing double-circuit 230 kV steel
	D	ACSR/AW	lattice towers to new double-circuit 69 kV steel poles
		(Ortolan)	
Notes:			
Table contents based upon preliminary engineering and are subject to change.			
<sup>4</sup> Proposed conductor would match existing conductor for size and type.			

 Table 3-8:
 Relocated/Consolidated Power and Transmission Lines

Proposed cond

Source: SDG&E

# 3.3.6.4 Grounding Rods

All of the steel poles, regardless of foundation type, would require the installation of a minimum of two grounding rods buried approximately 6 to 18 inches deep. The number of grounding rods could increase depending on soil conditions identified during construction. The grounding rods are approximately 8 feet in length and would be installed approximately 6 feet apart within the established work areas. Permanent impacts associated with the grounding rod installation would be negligible (e.g., less than 1 square foot per structure).

# 3.4 CONSTRUCTION METHODS

This section includes an overview of the typical methods that would be used for construction of the Proposed Project. Specifically, this section describes typical construction methods for

overhead and underground facilities, construction equipment, and temporary construction work It is anticipated that construction of the Proposed Project would result in up to areas. approximately 4,500 cubic yards of excavation for concrete foundations. In addition. construction is anticipated to require approximately 15,500 cubic yards of excavation during trenching for the proposed underground transmission line Segment B. Cut and fill would also be required at some structure locations to create construction and line maintenance pads. Detailed civil engineering for these work pads has yet to be completed. Actual cut and fill grading amounts may vary dependent upon actual field conditions and final detailed engineering, but are estimated to be approximately 21,620 cubic yards of cut and 3,720 cubic yards of fill (net 7,900 yards of cut). Soil may be re-used onsite within existing ROWs where extensive grading and excavation is not required in areas of existing access roads, spur roads, and work pads. Excess soil from excavation may also be transported to a local recycling or appropriately permitted waste disposal facility if the soil is not re-used onsite or otherwise recycled. Excess soil would be re-used onsite wherever possible and only transported offsite as the final option. SDG&E's construction methods are subject to implementation of the SDG&E's standard environmental procedures and protocols, including SDG&E's Subregional Natural Community Conservation Plan (SDG&E's Subregional NCCP), which is described in greater detail in Section 4.4, Biological Resources, and below (see Sections 3.7 and 3.8). SDG&E has successfully implemented the Natural Community Conservation Plan (NCCP) for pole replacement, upgrade and in-ROW expansion projects similar to the Proposed Project for nearly two decades.

# 3.4.1 Overhead Transmission Line Construction

The procedures for bringing personnel, materials, and equipment to each structure site, installing the supporting structure foundations, erecting the supporting structure, and stringing the conductors may vary slightly along each segment or at any particular structure site. However, the following steps provide the general methods used to construct an overhead transmission line.

# 3.4.1.1 <u>Step 1 – Spur Road Construction (as-needed)</u>

The first step in constructing the overhead line is to install the new spur roads required to access the new structure sites. These roads would be graded and would generally be 12 to 14 feet wide for straight sections and up to 20 feet wide at sharp curves when necessary to ensure safe movement of construction equipment and vehicles. Due to the fact the Proposed Project would follow existing transmission corridors; construction access to new structure sites would generally be available by way of existing access roads. Existing access roads may be re-established or otherwise maintained to ensure that construction access is available. Based upon preliminary engineering, approximately one new spur road would be required to access Structure No. P2 along Segment A (refer to Appendix 3-B)<sup>13</sup>.

# 3.4.1.2 <u>Step 2 – Construction and Maintenance Pads</u>

After access to each new structure site has been established, work pads are created that would be utilized for construction, operation and maintenance. Work areas utilized solely for construction are often simply cleared of vegetation, and grading is only undertaken where relatively flat areas

<sup>&</sup>lt;sup>13</sup> Additional spur roads may be required based upon further detailed engineering and constructability review.

are not already present. Construction activities will often utilize existing flat, cleared areas such as existing access roads and previously disturbed areas. For pole construction within existing utility corridors, including projects that involve pole replacements, the line maintenance pads are also utilized for construction activities. This is the case for the Proposed Project as most of the new poles involve the construction of new poles in close proximity to existing poles that would be removed and replaced. The amount of space needed for construction of new structures varies depending upon the size and type of the structure, the surrounding topography, and the presence of sensitive resources. Section 3.4.6.3 further describes the amount of space typically required for construction of overhead power and transmission line structures.

Transmission line maintenance pads are cleared and graded flat, and are maintained free of vegetation for the operational life of the project. As needed, retaining walls would be installed to ensure safety and stability of the transmission line maintenance pad where geologic and topographic conditions warrant.

# 3.4.1.3 <u>Step 3 – Installing Structure Foundations</u>

Prior to installing the support structure foundations, vegetation at each of the structure sites would be cleared and the area would be graded either flat or in a terraced fashion, as needed. At some sites, soil may be imported as necessary to raise the elevation of the structure pads, and retaining walls may be needed. Material removed during the process would be spread over existing access roads and work pads as appropriate, or disposed of off-site according to all applicable laws.

# **Concrete Pier Foundations**

A large auger would be used to excavate holes that could range from 6 feet to 11 feet in diameter, but would typically be 9 feet in diameter. Foundation depth would typically range from approximately 20 to 40 feet deep, but could increase due to soil conditions. If unstable soils conditions are encountered, hole excavations may require installation of steel casings to stabilize the sides of the excavation. The casing diameter would approximately match the diameter of the excavation. The length of the casing installed would normally be to the full depth of the excavation. The length of individual sections of casing are typically limited to 20 feet so multiple sections of casing may be used on deeper foundations. Following excavation, a reinforcing steel cage and anchor bolt cage would be installed in each hole. The steel cages would typically be assembled at the materials storage and staging areas and transported to each of the structure sites. The anchor bolt cages would be assembled offsite and delivered to each structure site. Typical foundations would require approximately 45 to 90 cubic vards<sup>14</sup> of excavation and a slightly larger volume of concrete placed into the holes as the foundations would extend one to two feet above the ground surface. Due to their larger diameter, cable pole foundations could require up to approximately 175 cubic vards<sup>15</sup> of concrete. The concrete curing period is approximately one month, during which time workers would remove the concrete forms and place backfill around the foundations as needed.

<sup>&</sup>lt;sup>14</sup> Assumed a typical 9-foot diameter foundation extended to depths ranging from 20 to 40 feet.

<sup>&</sup>lt;sup>15</sup> Assumes an 11-foot diameter foundation extended to an extra deep excavation (50 feet) due to unstable soils.

#### **Micropile Foundations**

A micropile foundation consists of several small diameter, drilled and grouted reinforced foundations, arranged in a circular pattern. One micropile typically consists of a small hole (approximately 6 to 8 inch diameter) excavated to a depth of approximately 10 to 40 feet depending on the properties of the soil or rock underlying the surface. A steel rod is inserted into the hole and centered, and the surrounding annulus is filled with a non-shrink grout. The steel rod protrudes above grade to be connected to a transition steel plate or to a concrete cap supporting the structure above grade. Loads from the above structure are transferred to the steel rod, and then transferred from the rod to the grout to the surrounding soil. A steel pipe or casing is often inserted in the upper portions of the micropile to add strength for shear transfer and to provide for local upper-portion unbonded axial movement of the rod.

The micropiles are typically installed from a platform situated approximately 6 feet above the ground surface. The platforms and all equipment can be placed by truck-mounted crane or flown to sites by helicopter. The platform is supported on 4 to 6 telescoping legs that can be adjusted to support the platform on slopes. The drilling process takes place from the platform, and drills are powered by generators or compressors that either rest on the platform or are supported nearby on the ground.

For electric transmission and power line structure support, a series of approximately 4 to 16 (or more) individual micropiles are arranged in a circular pattern to take the place of a larger conventional reinforced concrete drilled pier that would typically be approximately 4 to 10 feet diameter and 10 to 40 feet deep. Equipment used for the micropile installations is smaller and more portable than the large drill rigs used for drilled pier excavation and construction and can be flown in to inaccessible areas. Micropile foundations are more suitable for inaccessible areas due to terrain and areas where access may be prohibited due to environmental or agency concerns. Micropile foundations are also suitable for rock areas where excavation of the rock for conventional drilled piers would be difficult and entail the use of blasting or rock breakers with augers, or core barrels. The spoils and local disturbances created by micropiles are much less than that of conventional drilled concrete piers.

# **Other Considerations during Foundation Construction**

It is not currently anticipated that blasting would be required to complete construction of the Proposed Project. However, in some locations where significant or dense rock is present, blasting may be required. Section 3.4.5, Blasting, describes the blasting process, should it be necessary.

Dewatering may also be necessary in some locations. Prior to construction, SDG&E will acquire coverage under the General Permit for Storm Water Discharges Associated with Construction Activity (General Construction Permit) from the SWRCB and prepare a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP will detail project information, dewatering procedures, storm water runoff prevention control procedures, monitoring and reporting procedures, and best management practices (BMPs). Bentonite or similar stabilizing materials may be used to support foundation installation when water is present within the excavation.

# 3.4.1.4 <u>Step 4 – Structure Erection</u>

Based upon preliminary engineering and constructability review, it is anticipated that construction of transmission and power line structures would be conducted utilizing ground equipment such as cranes, flatbed trucks, drill rigs and excavators. Helicopters may be used during stringing activities, but are not anticipated to be utilized for pole removal or erection. The proposed alignment contains existing access and work space which would help accommodate ground-based construction equipment.

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. The poles would typically have six crossarms (for double-circuit poles) that would support one circuit on each side. The crossarms would be bolted to the pole, and the insulators would be bolted to the crossarms. After assembly, a large crane would be used to lift to set the pole sections into place on the anchor bolts that are either embedded in the concrete foundation or attached to the micropile foundations. The nuts on the foundation would then be tightened and secured.

# 3.4.1.5 <u>Step 5 – Existing Facilities Removal</u>

As previously described, construction of the Proposed Project segments would involve the removal of certain existing power line poles and structures (mainly wood with a few steel structures). Refer to Appendix 3-B for the location of all poles to be removed. First, the existing conductor would be removed from the poles using wire trucks and pulling rigs. Guard structures would be utilized as needed. For segments requiring reconductoring, existing hardware and insulators would be removed and replaced with new polymer insulators and hardware. For structures that would be removed from service (such as existing TL 13820/13825 along Segments A and TL 675 along Segment D), the old poles and components would be dismantled by cranes, bucket truck, or by hand, and would be hauled away by truck. Wood poles to be removed would either be removed to full depth or cutoff approximately 2 feet below grade depending upon environmental constraints at specific locations. After the poles have been removed, any existing concrete foundations would be jack hammered to approximately 2 feet below grade, and debris would be removed. The hole would then be backfilled with soil or materials similar to the surrounding area and the site would be restored. All structural removal would be completed from existing work pads (typically 35 feet by 75 feet) located at each existing pole site or using new structure temporary work areas, as-needed. No new impact areas are anticipated to be required for removals. These areas are kept clear of vegetation for operation and maintenance activities.

# 3.4.1.6 <u>Step 6 – Guard Structure Installation</u>

Prior to installing the new overhead conductor, SDG&E would utilize temporary guard structures at road 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. Guard structures typically consist of directly embedded wood poles with cross-beam attached to side extensions. In some locations, such as paved areas, a boom or bucket truck may be used as a guard structure. Where embedded wood guard structures are used, an auger would be used to excavate the holes where the wood poles
would be installed and a crane or line truck would lift the poles into place. No concrete foundations are required to set the guard poles and no grading or other site work is anticipated. The temporary guard poles would be removed following the completion of conductor stringing operations and the holes would be backfilled with excavated soil.

Alternatively, SDG&E may use flaggers to temporarily hold traffic for brief periods of time while the overhead line is installed at road crossings. Typically, guard structures are utilized at larger crossings such as large roadways, sensitive waterways, and utility 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 connecting the guard structures. SDG&E will acquire all required encroachment permits and road crossing approvals, including implementation of any special guard structure procedures or requirements as directed by each oversight agency.

# 3.4.1.7 <u>Step 7 – Conductor Stringing</u>

Conductor stringing operations begin with the installation of travelers or "rollers" on the bottom of each of the insulators using helicopters or aerial manlifts (bucket trucks). The rollers 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 rollers, a sock line (a small cable used to pull the conductor) is pulled onto the rollers from structure to structure using helicopters or aerial manlifts traveling along the ROW. Once the sock line is in place, it is attached to the conductor and used to pull or "string" the conductor into place on the rollers using conventional tractortrailer pulling equipment located at pull and tension sites along the line. The conductor is pulled through each structure under a controlled tension to keep it elevated and away from obstacles, thereby preventing third-party damage to the line and protecting the public. This "stringing" process is conducted using areas referred to as "stringing sites". Stringing sites are typically split into two types during stringing activities; "pull sites" and "reel sites". The reel site is used to park a large spool of conductor on a wire truck while the pull site is used to position the pulling rig that pulls the conductor. Each stringing site can be used as a pull or reel site, as needed. Stringing sites are typically required every 9,000 feet and at locations where the conductor changes direction (i.e. angle points).

After the conductor is pulled into place, the sags between the poles are adjusted to a precalculated level. Pursuant to General Order 95, the line would be installed with a minimum ground clearance of 30 feet (25 feet where there is pedestrian access only). The conductor is then clipped into the end of each insulator, the rollers are removed, and vibration dampers and other accessories are installed.

During the conductor stringing, the OPGW (shield wire with fiber optics) is also strung on top of the transmission line poles in a similar fashion to the conductor stringing.

A helicopter would be used during stringing operations to install the sock line that would be used to pull in the conductor. For stringing operations, it would generally take approximately half a day to pull in three phases of conductor for approximately 9,000 feet of transmission line. The helicopter would then not be needed again for two to three weeks until the next section of line is ready to be pulled. Helicopter activities would be staged out of existing airports where possible, and incidental landing areas, as needed.

# 3.4.1.8 <u>Step 8 – Site Cleanup</u>

SDG&E would restore all areas that are temporarily disturbed by the Proposed Project activities (including pull sites, reel sites, structure removal sites, and staging areas) to near preconstruction conditions following the completion of construction. Restoration would include grading and restoration of sites to original contours and reseeding, as appropriate. Vegetation will be returned to pre-project conditions as required by the SWPPP. In addition, all construction materials and debris will be removed from the Proposed Project area and recycled or properly disposed of off-site. SDG&E will conduct a final survey to ensure that cleanup activities are successfully completed as required.

# 3.4.2 Underground Transmission Line Construction

The following steps provide the general methods used to construct an underground transmission line as proposed as Segment B of the Proposed Project.

# 3.4.2.1 <u>Step 1 – Vault Installation</u>

SDG&E would excavate and place precast concrete splice vaults during the trenching operation (refer to Appendix 3-C for typical vault diagram). The vaults would be used initially to pull the cables through the conduits and later to splice cables together. During operation, the vaults would provide access to the underground cables for maintenance inspections, repairs, and replacement if needed. The vaults would be constructed of prefabricated (precast) or cast-in-place, steel-reinforced concrete. Each vault typically has two manhole covers measuring approximately 36 inches in diameter. Installation of each vault would occur over an approximate one-week period with excavation and shoring of the vault pit followed by delivery and installation of the vault, filling, grouting and compacting the backfill, and repaving the excavated area. The backfill may be slurry or concrete.

#### 3.4.2.2 <u>Step 2 – Trenching and Duct Bank Installation</u>

# Trenching

All trenching would utilize an engineered design containing an alignment to follow and plan and profile drawings showing the location and type of existing underground facilities located during the design phase of the project. Prior to trenching, SDG&E or their contractor would notify other utility companies (via Underground Service Alert) to locate and mark existing underground utilities along the proposed underground alignment. SDG&E would conduct exploratory excavations (i.e., potholing) to verify the locations of existing facilities marked out in the field prior to excavating. SDG&E would coordinate with local jurisdictions to secure excavation and encroachment permits for trenching in city streets, as required. Where partial road closures are required, proper traffic controls will be implemented as outlined within individual encroachment permits obtained from the local municipality as required. Specific road or lane closures anticipated during construction of the Proposed Project are discussed in Section 3.4.7, Road Crossings.

The majority of the duct bank would be installed using open-cut trenching techniques. Most of the duct bank would have a double-circuit vertical duct bank configuration, with occasional transitions to a flat configuration to clear existing substructures in highly congested areas or to

fan out to termination structures at the cable pole transition area. The typical trench dimensions for installation of a 230 kV vertical duct bank would be a minimum of 6 feet deep and 3.5 feet wide, although depth may vary to circumvent existing facilities. The trench will be widened and shored where necessary to meet California Occupational Safety and Health Administration safety requirements. Concrete saw cutting slurry produced during trenching would be cleaned from the street and not allowed to reach the curb or storm drain inlet. If trench water is encountered, trenches will be dewatered using a portable pump and disposed of in accordance with acquired permits. General dewatering procedures are described in Section 3.4.4 and similar procedures would be implemented during underground transmission line construction.

Trenching operations would be staged in intervals so that only a maximum of approximately 300 to 500 feet of trench would be left open at any one time or as allowed by permit requirements. This would generate approximately 300 cubic yards per day<sup>16</sup> of excavated material. Steel plating would be placed over the open trenches to maintain vehicular and pedestrian traffic across areas that are not under active construction. Traffic controls will also be implemented to direct local traffic safely around work areas, as stipulated within individual encroachment permit conditions as required. SDG&E would coordinate provisions for emergency vehicle and local access with local jurisdictions, as necessary (further detail is provided within Section 4.14, Transportation and Traffic).

Throughout trench excavation and installation of the duct bank and vaults; asphalt and concrete would be transported to a materials storage yard. Excavated soils not suspected to be impacted would be disposed of at an appropriate facility<sup>17</sup>. Soil that is stained, odorous or otherwise suspect would be sampled in-place, tested, profiled and transported to an appropriately permitted landfill.

Should suspect soil be encountered during trenching activities, SDG&E would sample in-place, test, profile and transport this material to an appropriately permitted disposal facility in accordance with all Federal, State and local laws and regulations.<sup>18</sup> The number of truck trips to transport excavated materials to storage yards and/or disposal facilities would vary based on the rate of the trenching, the area excavated to install the vaults, and proximity of the storage yards/disposal facilities to the ROW. However, approximately 15 to 20 truck trips per day would be required during trenching activities at one site. Truck trips for materials transport would increase for the Proposed Project as a whole when trenching activities occur at multiple locations. Jackhammers may be used sparingly to break up sections of concrete that the saw-cutting and pavement-breaking machines cannot reach. Other miscellaneous equipment may

<sup>&</sup>lt;sup>16</sup> Assumes two crews trenching approximately 150 feet per day, with average trench dimensions of 8 feet deep by 3.5 feet wide.

<sup>&</sup>lt;sup>17</sup> The construction contractor would identify a disposal facility for clean soils and an appropriate recycling facility for recyclable construction debris.

<sup>&</sup>lt;sup>18</sup> SDG&E has identified two potential hazardous and two non-hazardous waste disposal facilities. SDG&E has identified as potential hazardous waste landfills: 1) Waste Management Kettleman Hills Facility, located approximately 290 miles north of the Proposed Project in Kettleman City, California; and 2) Clean Harbor Environmental Services in Buttonwillow, California, which is located approximately 240 miles north of the Proposed Project. For non-hazardous waste, SDG&E has identified Non-Hazardous Waste Landfills Republic Services, Otay Landfill in Chula Vista, California, located approximately 20 miles south of the Proposed Project, and Soil Safe, Inc., Soil Recycler in Adelanto, California, located 135 miles north of the Proposed Project.

include a concrete saw, back hoe, excavator, roller compactor, water truck, various paving equipment, and standard 1-ton pickup trucks.

#### **Duct Bank Installation**

As each section of the trench for the underground 230 kV duct banks are completed, SDG&E would install the conduits (separated by spacers) and place 2,000 psi concrete around the conduits to form the duct bank encasement. The ducts would typically consist of 8-inch diameter polyvinyl chloride (PVC) conduits, which house the electrical cables, and 2-inch diameter PVC conduits for the telecommunications cable used for system protection and communication. The dimensions of the duct banks would be approximately 3 feet wide by 3 feet in height and located in the trench at a minimum depth of 3 feet from top of the encasement to the surface. Appendix 3-C contains typical duct bank diagrams and Appendix 3-B depicts the approximate location of proposed trenching.

Once the PVC conduits are installed and encased, a fluidized thermal backfill would be utilized to fill most of the remainder of the trench. Finally, an aggregate road base or backfill or slurry concrete with an Asphalt Concrete cap will be installed to restore the road in compliance with local requirements. While the completed trench sections are being restored, additional trench would be opened further down the street. This process would continue until the entire duct bank is in place. Each duct bank would have a minimum of 36 inches of cover. Larger trenches would be excavated where vaults are installed (refer to Step 1 - Vault Installation).

Where the duct banks cross or run parallel to other utilities, a minimum radial clearance of 18 inches would be required. These utilities include gas lines, telephone lines, water mains, storm drains, and sewer lines. Where the duct banks cross or run parallel to other substructures that have operating temperatures that significantly exceed earth temperature, an increased radial clearance may be required. Such heat-radiating facilities may include other underground transmission circuits, primary distribution cables (especially multiple-circuit duct banks), steam lines, or heated oil lines.

The new 230 kV underground system would cross one existing bridge located along Carmel Valley Road approximately 1.2 miles west of Camino Del Sur. The bridge is composed of single span, box girder construction, approximately 131 feet in length. The proposed new duct system would utilize an empty bridge cell measuring approximately 4.5 feet high by 8.5 feet wide. A 40-inch bore would be required at each end of the bridge to penetrate the abutment back wall and bridge end diaphragms. A 36-inch steel casing will be inserted at both ends and grouted per City of San Diego requirements. Two to four 30-inch by 30-inch openings would be cut in the bridge deck to provide working access to the cell. Duct spacers and supports would be secured at 4- to 6-foot intervals along the length of the cell to support the ducts and maintain spacing. Once the duct package is installed through the bridge and tied into the duct system at both ends outside the bridge, all openings will be closed per City of San Diego Specifications.

#### 3.4.2.3 <u>Step 3 – Cable Pulling, Splicing, and Termination</u>

After installation of the conduit and splicing vaults, SDG&E would install cables in the duct banks. Each cable segment would be pulled into the duct bank, spliced at each of the vaults along the route, and terminated at the transition area where the line transitions to the overhead

sections. To pull the cable through the ducts, a cable reel is placed at one end of the section and a pulling rig is placed at the other end

The electric cables and the communication cable would be pulled through the individual ducts at the rate of approximately two segments between vaults per day. A splice trailer would be positioned adjacent to the vault manhole openings to facilitate cable splicing at the vaults after the cables are pulled through the ducts. Each splice would require approximately three working days to complete. The vaults must be kept dry at all times to keep the unfinished splices dry and prevent other impurities from affecting the cables. At each end of the underground segment, the cables transition from underground to overhead (or vice versa) on the cable pole.

# 3.4.2.4 <u>Step 4 – Site Cleanup</u>

As part of the final construction activities, SDG&E would:

- Restore all removed curbs, gutters, and sidewalks;
- Repave all removed or damaged paved surfaces;
- Restore landscaping or vegetation as necessary;
- Replace any damaged or removed fencing; and
- Remove all construction materials from the construction site.

#### 3.4.3 Outage Coordination

SDG&E would coordinate line outages in order to maintain system reliability and construction personnel safety. Based upon preliminary engineering, SDG&E does not anticipate any project based interruption of service to customers during construction.

#### 3.4.4 Dewatering

If required, dewatering will be conducted pursuant to applicable SDG&E standard practices and water quality regulations, including National Pollutant Discharge Elimination System (NPDES).

#### 3.4.5 Blasting

If rock is encountered during excavation, a hydraulic rock drilling and splitting procedure (rocksplitting) may potentially 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 nonblasting cartridge of propellant. The cartridge is mechanically initiated by an impact generation device. This hydro-fracturing effect causes controlled tensile crack propagation in the rock and does not result in flyrock, noxious fumes, or ground vibrations.

In the unlikely event that rock blasting is used during construction where solid rock is present and where the hydraulic rock drilling and splitting procedure would be ineffective, the following procedure would be utilized to minimize both drilling time and noise impacts. The procedure involves drilling approximately 3-inch-diameter blast holes to the full depth of the shaft and inserting explosives. Blasting caps are connected, and a non-electric detonator is employed. Flyrock protection is installed prior to blasting, and seismographs are placed 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 covering, geo-textile fabric with chain link fence covering, and wetting the blasting surface. If blasting is utilized with the Proposed Project, the blasting contractor would be required to obtain a blasting permit and explosive permit per applicable local regulatory ordinances. The appropriate BMPs would be used before, during, and after all project-related construction activities where necessary to prevent erosion and offsite sedimentation.

# 3.4.6 Temporary Work Areas

Work areas would be required for construction of new facilities, removal of existing facilities, and storage and staging of construction equipment and materials. Each of these temporary work areas are described below.

During construction, alteration to the temporary work spaces may be required to accommodate construction activities. Any necessary changes will be evaluated per *SDG&E's Subregional NCCP*, the Proposed Project SWPPP, aquatic resources, and for cultural resources in order to avoid impacts to sensitive resources and to identify any necessary changes to the SWPPP.

Table 3-9, Temporary Work Areas Summary, outlines the estimated total work area required for construction of the Proposed Project.

Work Area Type	Estimated Number	Estimated Total Area (Acres) <sup>1</sup>
Material Storage and Staging Yards	5 yards	$25^{2}$
Stringing Sites	20 stringing sites	16.5
Structure Work Areas <sup>3</sup>	62 structures	27.1
Guard Structures	48 guard structures	1.7
Underground Construction (230 kV)	2.84 miles	8.8
Underground Construction (138 kV)	850 feet	0.7
Total	N/A	79.81

Table 3-9: Temporary Work Areas Summary

Notes:

Table contents based upon preliminary engineering and are subject to change.

<sup>1</sup> Work area values do not include overlap. For example, most stringing sites overlap with structure work areas. However, these overlap areas are only counted towards one type of work even though they are utilized for more. <sup>2</sup> 25 acres is estimated for total staging yard area use. The five potential staging yards identified include a much

larger area. It is anticipated that for Staging yards Nos. 3-5, only a portion of the identified site would actually be utilized. The actual size of the staging yards would be dependent upon the availability at the time of construction. <sup>3</sup> Includes work area for pole removals. Most poles to be removed are located within the work areas for new

structures installation (refer to Appendix 3-B). However, approximately 17 structures to be removed are not located within a structure installation work area. Separate area for the removal of these 17 structures has been included herein.

Source: SDG&E

#### 3.4.6.1 <u>Materials Storage and Staging</u>

The Proposed Project includes approximately five temporary construction staging yards (refer to Appendix 3-B), resulting in a total area of approximately 25 acres. The staging areas may be used for refueling areas for vehicles and construction equipment by a mobile fueling truck, pole assemblage, open storage of material and equipment, construction trailers, portable restrooms, parking, lighting and may include generator use for temporary power in construction trailers and incidental landing areas for helicopters. Construction workers typically meet at the staging yard each morning and park their vehicles at the yard. In-ground fencing would be installed at the staging yards wherever it is not already installed. Gravel may be used to line the ground at staging yards to avoid the creation of unsafe mud conditions and unnecessary sediment transport off site.

SDG&E has attempted to identify a reasonable number of staging yards commensurate with the size, location, and scope of the Proposed Project. Past staging yards were identified, as well as large undeveloped areas near one or more portions of the Proposed Project that have been previously disturbed and/or graded. While SDG&E has exercised reasonable diligence in identifying potential construction staging yards, there is no guarantee that the identified staging yards would be available by the time the Proposed Project is set to begin construction. Other potential staging yards may be identified as part of the environmental review process.

#### Staging Yard No. 1 (Stonebridge)

The potential construction staging yard at Stonebridge Parkway is approximately 4 acres in size and is located approximately 800 feet northeast of the Sycamore Canyon Substation. The Stonebridge staging yard has been utilized on recent past projects by SDG&E and others and the site has been previously disturbed and graded. SDG&E currently anticipates utilizing Staging Yard No. 1 again during construction of the Proposed Project.

#### Staging Yard No. 2 (Stowe)

The potential construction staging yard at Stowe Road is approximately 4 acres in size and is located approximately 1.6 miles north of the Sycamore Canyon Substation, within the City of Poway. Staging Yard No. 2 has been utilized recently by SDG&E as a construction staging yard and has been previously graded and fenced. SDG&E currently anticipates utilizing Staging Yard No. 2 again during construction of the Proposed Project.

#### Staging Yard No. 3 (Torrey Santa Fe)

The potential construction staging yard at Torrey Santa Fe Road consists of a total area of approximately 23 acres that have been identified for potential use for staging during construction. Staging Yard No. 3 is located approximately 0.7 mile east of Segment C of the Proposed Project. The entire site has been previously graded. SDG&E would utilize some portion of Staging Yard No. 3, as space is available at the time of construction. It is not currently anticipated that SDG&E would utilize the entire 23 acre site, but that SDG&E could utilize a portion of the 23 acre site. SDG&E has utilized a portion of Staging Yard No. 3 for another project and anticipates utilizing some portion of the site during construction of the Proposed Project.

#### Staging Yard No. 4 (Carmel Valley Road)

The potential construction staging yard at the intersection of Carmel Valley Road and Camino Del Sur consists of a total area of approximately 26 acres that have been identified for potential use for staging during construction. Staging Yard No. 4 is located immediately adjacent to Segment B of the Proposed Project. The entire site has been previously graded. Staging Yard No. 4 is currently being utilized as a construction staging yard for the construction of another nearby project. SDG&E anticipates utilizing Staging Yard No. 4 if it is available during construction of the Proposed Project. It is not currently anticipated that SDG&E would utilize the entire 26 acre site, but that SDG&E could utilize a portion of the 26 acre site.

#### Staging Yard No. 5 (Carmel Mountain Road)

The potential construction staging yard on Carmel Mountain Road consists of a total area of approximately 100 acres that have been identified for potential use for staging during construction. Staging Yard No. 5 is located immediately adjacent to Segment D of the Proposed Project. The entire site has been previously graded. SDG&E anticipates potentially utilizing a portion of Staging Yard No. 5 if it is available during construction of the Proposed Project. It is not currently anticipated that SDG&E would utilize the entire 100 acre site, but that SDG&E could utilize a portion of the 100 acre site.

#### **Incidental Landing Areas**

Incidental landing areas (ILAs) are used for short term helicopter operations, such as picking up conductor or other equipment. Helicopters would be staged out of local airports (such as McClellan Palomar, Montgomery, and Gillespie) and would utilize construction staging areas as ILAs. Helicopter staging activities, such as refueling and maintenance, would be conducted at the local airport(s).

#### 3.4.6.2 <u>Stringing Sites</u>

Approximately 20 stringing sites<sup>19</sup> may be required and are listed and described below (refer to Appendix 3-B for graphic representation of the proposed stringing sties):

#### Segment A - Sycamore Substation to Carmel Valley Road (Eastern Cable Pole)

• Stringing Site No. 1 is located near Structure No. P3 as the new 230 kV line exits Sycamore Canyon Substation and traverses to the east. Stringing Site No. 1 is approximately 1 acre in size and would be accessed from the existing access road adjacent to the Sycamore Substation. This stringing site would also be utilized as a stringing site for the proposed OPGW.

<sup>&</sup>lt;sup>19</sup> It is important to note that areas included for stringing sites include area that could potentially be utilized during stringing activities, but that would not necessarily be directly impacted/disturbed (e.g. cleared of vegetation, if any, for active work). The area of direct impact/disturbance would in actuality be smaller than the listed area, but would typically occur within the identified boundary of each stringing site as described in this section of the PEA and depicted in Appendix 3-B.

- Stringing Site No. 2 is located between Structure Nos. P7 and P8. Stringing Site No. 2 is approximately 0.2 acre in size and would be accessed from existing SDG&E access roads that are accessible via Wild Meadow Place.
- Stringing Site No. 3 is located between, and includes the adjacent area around Structure Nos. P15 and P16. The conductor would need to be snubbed to the ground and spliced together within this span. Therefore, the area of this stringing site would be the entire length between Structure Nos. P15 and P16, including some overlap northwest of P16 and southwest of P15. Stringing Site No. 3 is approximately 3 acres in size and would be accessed from existing SDG&E access roads via the Scripps Poway Parkway. Additionally, Structure No. P16 would serve as a splice location for the OPGW.
- Stringing Site No. 4 is located near Structure No. P21. Stringing Site No. 4 is approximately 1.1 acres in size and would be accessed from existing SDG&E access roads via the access road in the parking lot off of Ivy Hill Drive.
- Stringing Site No. 5 is located near Structure No. P21. Stringing Site No. 5 is approximately 0.2 acre in size and would be accessed from existing SDG&E access roads via the access road in parking lot off of Ivy Hill Drive.
- Stringing Site No. 6 is located near Structure No. P24. Stringing Site No. 6 is approximately 1.2 acres and would be accessed from existing SDG&E access roads via the access road from Poway Road.
- Stringing Site No. 7 is located near Structure No. P26. Stringing Site No. 7 is approximately 0.75 acre in size and would be accessed from existing SDG&E access roads via the private parking lot off of Via Del Sur. Additionally, Structure No. P26 would also serve as a splice location for the OPGW.
- Stringing Site No. 8 is located near Structure No. P35. Stringing Site No. 8 is approximately 1.6 acres in size and would be accessed from existing SDG&E access roads via Sundevil Road.
- Stringing Site No. 9 is located near Structure No. P36. Stringing Site No. 9 is approximately 1.5 acres in size and would be accessed from existing SDG&E access roads via Laurentian Drive.
- Stringing Site No. 10 is located near Structure No. P41. The stringing Site No. 10 is for stringing associated with this cable pole and is approximately 0.25 acre in size and would be accessed from existing SDG&E access roads via private drive from Carmel Valley Road.

#### Segment C - Carmel Valley Road (Western Cable Pole) to Peñasquitos Junction

• Stringing Site No. 11 is located north of the cable pole option (Structure No. P42), on the north side of Carmel Valley Road at the western termination of the underground alignment. Stringing Site No. 11 is approximately 0.95 acre in size and would be accessed from the access road through Evergreen Nursery via Carmel Valley Road.

- Stringing Site No. 12 is located at the existing cable pole option south of Carmel Valley Road on the west side of the underground alignment (Structure No. P42). The area required would be the entire span length due to pulling conductor from both directions. Stringing Site No. 12 is approximately 0.78 acre in size and would be accessed from existing SDG&E access roads via Carmel Valley Road.
- Stringing Site No. 13 is located south of existing Structure No. E5. The area required would be the entire span length due to pulling conductor from both directions. Stringing Site No. 13 is approximately 1.1 acres in size and would be accessed from existing SDG&E access roads via Santa Fe Canyon.
- Stringing Site No. 14 is located at existing Structure No. E7. The area required would be used for pulling the OPGW and splicing. Stringing Site No. 14 is approximately 0.23 acre and would be accessed from existing SDG&E access roads via Sante Fe Canyon.

#### Segment D - Peñasquitos Junction to Peñasquitos Substation

- Stringing Site No. 15 is located at the Peñasquitos Junction between existing Structures Nos. E13 and E14, and includes the area encompassing proposed Structure Nos. P43 and P44. The area required would be used for pulling both the 230 kV conductor from the north and 69 kV conductor to the west. Stringing Site No. 15 is approximately 0.98 acre and would be accessed via access road from Park Village Road.
- Stringing Site 16 is located at existing Structure No. E19 and proposed Structure No. P51. The area required would be used for pulling the OPGW and splicing. Stringing Site No. 16 is approximately 0.28 acre in size and would be accessed from existing SDG&E access roads via Carmel Mountain Road.
- Stringing Site No. 17 is located at existing Structure No. E22 and proposed Structure No. P54. The area required would be used for installing full-tension sleeves for the conductor for all new conductor installations. Stringing Site No. 17 is approximately 1.21 acres and would be accessed from existing SDG&E access roads from Briarlakes Wood Drive.
- Stringing Site No. 18 is located between existing Structure Nos. E24 and E25, and between proposed Structure Nos. P56 and P57. Stringing Site No. 18 is approximately 1.14 acres and would be accessed from existing SDG&E access roads from East Ocean Air Drive.
- Stringing Site No. 19 is located on the west side of Structure No. P60 on the 69 kV lines, and between Structure Nos. E28 and E29 on the reconductored 138 kV and proposed 230 kV (230XX) lines. Stringing Site No. 19 is approximately 1.12 acres and would be accessed from existing SDG&E access roads at Peñasquitos Substation.
- Stringing Site No. 20 is located on the southwest side of existing Structure No. E29 and would be used to string in the new 230 kV and existing TL 13804 lines. Stringing Site No. 20 is approximately 0.44 acre and would be accessed from existing SDG&E access roads from Peñasquitos Substation.

The location of stringing sites may be modified or additional stringing sites may be identified during construction in order to safely and efficiently string wire.

#### 3.4.6.3 Structure Work Areas

Installation of the new 69, 138, and 230 kV steel poles throughout the Proposed Project as described in Section 3.4.1 above would typically require approximately 22,500 square foot work areas (this area may be smaller or larger at various locations). However, because most of the new poles would be located in the immediate vicinity of existing poles, the actual proposed work areas would often be much smaller as existing maintenance pads and access roads would be utilized during construction of new poles as much as possible. These work spaces provide a safe working area for equipment, vehicles, and materials during pole installation and maintenance. A minimum of 15 feet of clearance (approximately 700 square feet) would be maintained around certain new transmission poles for the purposes of maintenance and inspection activities.

In addition to temporary construction work areas, new poles would require a permanent maintenance pad, which is typically approximately 50 by 75 feet in size. These areas are considered a permanent work space and would be kept relatively flat and un-vegetated. It is important to note that the 15 feet of clearance around each pole and the required maintenance pads would often overlap. Any work space not required for safety during operation and maintenance would be restored to as close as possible pre-construction conditions following the completion of the Proposed Project. All pole removal would be completed from existing line maintenance pads and access roads.

The temporary impact areas may vary because the positioning of construction vehicles, equipment, and materials cannot be accurately anticipated prior to construction. The locations of the construction vehicles, equipment, and materials are dependent upon the contractor safely performing the work. The impacts from construction vehicles, equipment, and materials staged outside of delineated temporary work areas would be evaluated by the on-site biological monitor prior to their placement. The monitor, as appropriate, would assist crews in placement of construction vehicles, equipment, and materials to avoid and minimize impacts to sensitive habitat types. In addition, in order to maintain a safe working space for crewmembers working directly under poles, construction vehicles, equipment, and materials may need to be staged off of existing access roads and/or outside of delineated temporary work areas. However, the on-site biological monitor would assist crews in locating appropriate staging areas for construction vehicles, equipment, and materials that avoids and minimizes impacts to sensitive habitat types. Any temporary impacts associated with placement of construction vehicles, equipment, and materials would be recorded by the biological monitor and will be included within the project Post Construction Report and will be mitigated as necessary, pursuant to the SDG&ESubregional NCCP.

#### 3.4.6.4 Guard Structures

Bucket trucks are often utilized as guard structures during stringing activities. Where wooden poles are used as guard structures instead, installation requires the temporary use of up to approximately 1,500 square feet of area, depending upon guard structure configuration and location. The temporary work area is located in the immediate vicinity of the guard structure location. No permanent impacts would result from the utilization of guard structures. Guard structure installation utilizing wood poles would include excavation of holes approximately 3 feet in diameter and 10 feet in depth. Excavated soils would be temporarily stock piled and then replaced within the excavation following stringing activities.

#### 3.4.6.5 <u>Temporary Right-of-Way</u>

Construction is anticipated to occur within existing ROW, except for construction staging areas. No temporary construction easements are anticipated to be required.

#### 3.4.6.6 <u>Access</u>

Construction would primarily take place within the existing SDG&E ROW easements and access roads and public roadways. Most work areas are accessible by vehicle on unpaved SDG&Emaintained access roads or by overland travel<sup>20</sup>. To enable crews and equipment to access the associated poles, smoothing or refreshing of the existing access roads and/or vegetation clearing would be necessary to improve some existing access roads and to re-establish unmaintained access roads. Pursuant to *SDG&E's Subregional NCCP*, SDG&E is not required to mitigate for impacts to vegetation resulting from road maintenance (i.e., re-establishing) of existing access roads. Based upon preliminary engineering, one new spur road would be required for access to Structure No. P2. Cleared vegetation would be removed from the project site and disposed of at an approved offsite facility. Vehicles will remain within existing access roads, previously disturbed areas, and designated temporary work areas, where feasible.

In addition, contractors may require additional turn around and vehicle passing locations in order to safely operate construction vehicles and equipment. However, the on-site biological monitor would assist crews in locating vehicle turn around and passing areas that avoids and minimizes impacts to sensitive habitat types. Any temporary impacts associated with turn around and passing areas would be recorded by the biological monitor and would be included within the project Post Construction Report, and will be mitigated as necessary, pursuant to the *SDG&E Subregional NCCP*. At designated drainage crossing locations along the access roads, the blade of smoothing equipment would be lifted 25 feet on either side of the drainage to avoid impacts to the drainage. Temporary bridging of drainage crossings may be utilized wherever feasible.

#### 3.4.6.7 <u>Underground Transmission Line Construction</u>

The majority of the underground transmission line construction included as part of the Proposed Project would utilize the cut and cover construction method, which typically requires approximately 25 feet width of space for construction. At vault locations, approximately 50 feet width of space would be required for installation of the new underground splice vaults along Segment B.

#### 3.4.7 Road Crossings

Typically, guard structures are used for larger road crossings and traffic control is utilized for locations where overhead lines cross smaller roads. Where traffic control is utilized at road crossings, SDG&E will obtain encroachment permits as required by the applicable local municipal agency. Guard structures are discussed in Sections 3.4.1 and 3.4.6.4 above. However, special conditions exist for freeway crossings such as where the Proposed Project route crosses

<sup>&</sup>lt;sup>20</sup> Overland travel refers to temporary vehicular access across un-improved areas. Overland travel areas are not graded or subjected to other earthwork improvement. Following construction these areas are returned to an approximate pre-construction state.

Highway (Hwy) 56 and Interstate 15 (I-15), which are under the jurisdictional authority of the California Department of Transportation (Caltrans). Crossing at these locations will be conducted pursuant to Caltrans approved methods, which could include traffic control, guard structures, netting, or any combination of these methods as will be outlined within the encroachment permit issued by Caltrans for all highway crossings.

#### 3.4.8 Helicopter Usage during Transmission Line Construction

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. SDG&E anticipates that light-or medium-duty helicopters (e.g. K-Max and Astar) may be utilized. Helicopters would be utilized during daylight hours, and flight paths would generally be limited to the existing ROW except for ingress and egress from the helicopter landing/staging yards (local airports and incidental landing areas). Any helicopter use would comply with all relevant usage permits including Federal Aviation Administration (FAA) and Caltrans. SDG&E and/or the construction contractor would coordinate with local air traffic control and comply with applicable FAA regulations regarding helicopter use to prevent conflict with air traffic generated by local airports. In addition, a Congested Area Plan (CAP) would be prepared, if required based upon actual helicopter usage, pursuant to FAA regulations (14 Code of Federal Regulations [CFR] 137.51).

# 3.4.9 Site Cleanup

SDG&E would restore all areas that are temporarily disturbed by the Proposed Project activities (including stringing sites, structure removal sites, and staging areas) to approximate preconstruction conditions following the completion of construction. Restoration could include reseeding, planting of replacement vegetation or replacement of structures (such as fences, curbs, or landscaping), as appropriate. In addition, all construction materials and debris would be removed from the Proposed Project area and recycled or properly disposed of off-site. SDG&E would conduct a final survey to ensure that cleanup activities are successfully completed as required.

#### 3.4.10 Removed Structures/Poles, Materials, and Components

It is SDG&E's practice to re-use or recycle/donate all old structures/poles, materials, and components following the retirement of substations, power lines, and structures/poles. Whatever cannot be re-used or recycled is disposed of at an appropriate facility pursuant to all applicable laws. Table 3-10, Common Destination of Removed Project Components, outlines how some removed project components are often disposed of following construction.

Project Structure, Material, or Component	Common End Use or Destination
Wood power line structures/poles	Donated for re-use or sanitary disposal
Conductor cable	Recycled
Insulators	Sanitary disposal
Scrap steel, copper and other metal	Recycled
Concrete	Recycled
Soils	Re-used onsite or disposed of pursuant to applicable
	laws
Batteries	Recycled
Source: <i>SDG&amp;E</i>	

 Table 3-10:
 Common Destination of Removed Project Components

#### 3.4.11 Construction Equipment and Personnel

#### 3.4.11.1 Construction Personnel

Construction of the Proposed Project may require multiple four- to ten-person crews and associated equipment. Also present throughout construction would be environmental monitors, construction inspectors, and SDG&E personnel. These crews may work simultaneously at various points along the Proposed Project route and affected substations, with up to approximately 100 people (including construction crews, monitors, and all other support staff) working at one time. SDG&E would supplement its workforce as required during construction from a contractor's pool of experienced personnel.

#### 3.4.11.2 Construction Equipment

Table 3-11, Standard Construction Equipment and Usage lists the typical construction equipment that could be utilized for the Proposed Project and their respective uses with respect to the Proposed Project scope.

Equipment Type	Equipment Use
2-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
Backhoe	Excavate trenches
Boom truck	Access poles and other height-restricted items
Bulldozer	Repair access roads
Concrete saw	Cut concrete and asphalt
Concrete truck	Transport and process concrete
Crane truck	Lift, position structures

 Table 3-11: Standard Construction Equipment and Usage

Equipment Type	Equipment Use
Crane	Lift, position structures
Drilling rig/ Truck-mounted augur	Excavate for direct-bury and micropile poles
Dump truck	Haul excavated materials/import backfill, as needed
Excavator	Excavate soils/materials (trenching)
Flatbed boom truck	Haul and unload materials
Forklift	Transport materials at structure sites and staging yards
Grader	Road construction and maintenance
Helicopter (typically light- and medium- duty)	Transport materials, string conductor, and install and remove travelers, set structures
Hydraulic rock-splitting/ rock-drilling equipment	Drill through rock, as needed
Jackhammer	Break concrete and asphalt
Line truck	Install clearance structures
Mobile fueling trucks	Refuel equipment
Mower	Clear vegetation
Paver	Paving of new asphalt
Pickup trucks	Transport construction personnel
Portable generators	Operate power tools
Pulling rig	Pull conductor
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	

#### Table 3-11 (cont.): Standard Construction Equipment and Usage

# 3.5 CONSTRUCTION SCHEDULE

SDG&E estimates that construction of the Proposed Project would take a total of approximately 12 months to complete, depending upon unforeseen/unpredictable factors such as weather and required transmission outages. Construction is scheduled to begin in June 2016 and run through May 2017. The complete construction schedule, outlined by task, is summarized in Table 3-12, Proposed Construction Schedule.

Proposed Project Segment/Task	Approximate Duration (Months)	Anticipated Start Date <sup>1</sup>
Staging Yard Preparation and Mobilization	2	June 2016
Segment A – Site Preparation and Road Construction	2	July 2016
Segment A – Foundation Construction	2	August 2016
Segment A – Wire and Structure Removals	2	September 2016
Segment A – Structure Assembly and Erection	2	November 2016
Segment A – Wire Stringing	3	December 2016
Segment A – Cleanup and Restoration	1	March 2017
Segment B – Excavation Vaults and Trench	6	June 2016
Segment B – Ducts through Bridge	3	August 2016
Segment B – Cleaning and Proving Ducts	1	December 2016
Segment B – Cabling	2	January 2017
Segment B – Cable Testing and Commissioning	2	March 2017
Segment C – Site Preparation and Road Construction	1	September 2016
Segment C – Wire and Structure Removals	1	October 2016
Segment C – Wire Stringing	1	November 2016
Segment C – Cleanup and Restoration	1	December 2016
Segment D – Site Preparation and Road Construction	1	October 2016
Segment D – Foundation Construction	2	October 2016
Segment D – Wire and Structure Removals	1	February 2017
Segment D – Structure Assembly and Erection	1	January 2017

# Table 3-12: Proposed Construction Schedule

Proposed Project Segment/Task	Approximate Duration (Months)	Anticipated Start Date <sup>1</sup>
Segment D – Wire Stringing	2	March 2017
Segment D – Cleanup and Restoration	1	May 2017
Overhead Testing and Commissioning	1	May 2017
Notes:		

#### Table 3-12 (cont.): Proposed Construction Schedule

<sup>1</sup> Start dates estimated and pending receipt of required approvals. Start dates for individual tasks may vary during construction in order to accommodate minor project refinements, avoidance of adverse effects to sensitive resources, or other unforeseen occurrences. Construction durations are not necessarily continuous.

Source: SDG&E

# 3.6 PERMANENT LAND AND RIGHT-OF-WAY REQUIREMENTS

#### 3.6.1 Permanent ROW and Easement Requirements

Table 3-13, Permanent Land and ROW Requirements, outlines the anticipated new land and ROW required for the Proposed Project segments and a general timetable for required ROW acquisition.

Proposed Project Segment	Approximate Length (feet)	Approximate Area (acres)	Acquisition Schedule
Segment A – Sycamore Canyon Substation to Carmel Valley Road	None	None	N/A
Segment B – Carmel Valley Road	None	None	N/A
Segment C – Carmel Valley Road to Peñasquitos Junction	100 <sup>1</sup>	$0.25^{1}$	March 2015 <sup>2</sup>
Segment D – Peñasquitos Junction to Peñasquitos Substation	None	None	N/A

 Table 3-13:
 Permanent Land and ROW Requirements

Notes:

Table contents based upon preliminary engineering and are subject to change.

<sup>1</sup> SDG&E has existing ROW in this area; however the existing agreement will have to be amended to include underground rights.

 $^{2}$  SDG&E anticipates amendment of the existing easement agreement by this date, but the final date is considered to be approximate.

Source: SDG&E

SDG&E currently has valid easements and franchise agreement rights to construct the proposed new 230 kV transmission line between the Sycamore Canyon and Peñasquitos Substations, with the exception of one very small area associated with the proposed new 230 kV cable pole on the west end of Segment B. For the proposed route, an amendment to the existing overhead transmission easement at the western cable pole location just south of Carmel Valley Road (refer to Appendix 3-B) would be required. The location for the western cable pole structure (Structure No. P42) is proposed outside of the street franchise and on land owned by Pardee Homes, within an existing SDG&E easement for overhead facilities. Because the cable pole requires underground rights, SDG&E would need to modify this easement.

The total land area of the amended easement would be less than 0.25 acre, which would still allow for flexibility in the precise siting of the western cable pole inside the existing transmission corridor. Construction access and permanent access is currently provided by existing SDG&E easements and SDG&E franchise rights with the City of San Diego and therefore no additional land acquisition for access purposes is anticipated.

#### 3.6.2 Permanent Work Areas

The Proposed Project is located predominantly within existing utility corridors and franchise areas that currently feature permanent work pads and access roads. Operation and maintenance of the Proposed Project would utilize these existing work areas and roads, as well as limited additional permanent work areas that would remain following completion of construction activities. Table 3-14, Summary of Permanent Work Areas, outlines the anticipated permanent work areas that would be created as a result of the proposed Project. It is important to note that the permanent work areas described in Table 3-14 would be contained within the temporary work areas describe in Section 3.4.6 and Table 3-9.

Work Area	Approximate Number	Approximate Area (acres)
New Structure Operation Work Pads <sup>1</sup>	62	7.758
New Permanent Spur Roads <sup>2</sup>	1	Included within work pad area
Splice Vault Man Holes <sup>3</sup>	10	94

Table 3-14. Summary of Lermanent Work Areas	<b>Table 3-14:</b>	Summary	of Permanent	Work	Areas
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Notes:

Table contents based upon preliminary engineering and are subject to change.

<sup>1</sup> Note that permanent structure operation work pads would be contained within the temporary structure installation work areas described in Section 3.4.6.3 and Table 3-8. Retaining walls and other area required to create a safe operations work pad are also included within this calculation. Areas are only included here where new work pads would be required. Therefore, the number of new work pads is less than the total number of new structures.

 $^2$  The Proposed Project is located within existing utility corridors with extensive existing access and spur roads. Operation and maintenance of the Proposed Project would utilize these existing roads for the vast majority of access requirements. Only newly required spur roads are included within this table as the existing access road network is considered part of the existing environment.

<sup>3</sup> The vast majority of splice vaults are located below ground and therefore only the size of man hole opening is counted above as part of the permanent work area.

Source: SDG&E

# 3.7 OPERATION AND MAINTENANCE (EXISTING AND PROPOSED)

The Proposed Project would replace and relocate existing electric transmission and power line facilities within existing utility corridors and franchise position within city streets. The Proposed Project would also add one new transmission line that would also be located within existing utility corridors and within franchise position. All proposed new and relocated facilities are located in existing SDG&E ROWs that currently contain similar facilities that are operated and maintained, except for the new segment of 230 kV transmission line that would be installed

underground within Carmel Valley Road. SDG&E currently operates and maintains existing facilities consistent with the ordinary operating restrictions described in Section 3.8, Project Design Features and Ordinary Construction/Operating Restrictions. These ordinary operating restrictions include standard protocols and procedures, such as *SDG&E's Subregional NCCP*, which is described in greater detail in Section 4.4, Biological Resources, as well as other measures that have been developed and implemented by SDG&E over time to avoid and minimize environmental impacts and to comply with applicable environmental laws and regulations. No change in SDG&E's operations and maintenance practices and restrictions along the Proposed Project route is anticipated, except along Segment B, where a new 230 kV line will be installed underground in a location where SDG&E does not currently operate or maintain facilities. As noted in Section 3.8, the existing operating practices and restrictions have been incorporated into the design of the Proposed Project and are also reflected in the baseline from which impacts of the Proposed Project have been evaluated.

SDG&E would continue to regularly inspect, maintain, and repair the new and reconstructed transmission line, power line, and distribution line facilities and substations following completion of Proposed Project construction. Operations and maintenance activities would not significantly increase in intensity, frequency or duration with implementation of the Proposed Project and would be substantially similar to existing operations and maintenance activities. Typical activities involve both routine inspections and preventive maintenance to ensure service reliability, as well as emergency work to maintain or restore service continuity. SDG&E performs aerial and ground inspections of Proposed Project facilities and patrols aboveground components annually. Inspection for corrosion, equipment misalignment, loose fittings, and other common mechanical problems is performed at least every three years (per General Order 165) for transmission and power lines.

SDG&E uses helicopters in the inspection of overhead facilities annually, or as otherwise required. SDG&E may also use helicopters to position aerial markers, as required by FAA regulations, deliver equipment, and position poles, structures and string lines. SDG&E's Transmission<sup>21</sup> departments use helicopters for patrolling power lines during trouble jobs (e.g., outages/service curtailments) in areas that have no vehicle access or rough terrain. For patrolling during such jobs, the helicopter picks up the patrolman at the district yard. The size of the crew varies from four to 10 crewmembers, two helicopter staff, and a water truck driver to apply water for dust control at the ILA. Most operations and maintenance related helicopter operations take only one day.

SDG&E maintains a clear working space area around certain poles pursuant to requirements found within General Order 95 and Public Resources Code (PRC) 4292. SDG&E keeps these areas clear of shrubs and other obstructions for fire prevention purposes. In addition, vegetation that has a mature height of 15 feet or taller are not allowed to grow within 10 horizontal feet of any conductor within the ROW for safety and reliability reasons.

Typical power line operation and maintenance activities include security and other inspections, ROW and access repairs, pole brushing in accordance with fire break clearance requirements,

 $<sup>^{21}</sup>$  The term "Transmission" as used within this section of the PEA refers to internal SDG&E operating departments and is not intended to suggest that this department works only on electric utility lines with operational ratings at or above 200 kV.

herbicide application, emergency and non-emergency repairs and replacements, insulator washing, and tree trimming. These activities are performed on an as needed basis.

The new 230 kV underground transmission line proposed in Segment B of the Proposed Project would be inspected consistent with SDG&E's existing underground inspection and maintenance program. The line would be accessed from ten new vaults during the annual underground transmission inspection program. The inspection requires traffic control to access the vault safely, opening the vault covers and performing a visual survey from above (entry into vault with energized cables is not permitted), and use of infra-red, partial discharge monitoring, or other diagnostic instrumentation which may be available. The total time to inspect each vault is expected to be less than one day under normal operating conditions. The inspection of the underground transmission line would be the same for all existing underground inspection currently completed by SDG&E within the City of San Diego and throughout SDG&E's service territory. The Proposed Project includes approximately 2.84 miles of new underground transmission line which would result in a less than three percent increase in the total mileage of underground transmission and power lines.

As for substation operations and maintenance, both affected substations (Sycamore Canyon and Peñasquitos) would continue to be operated and maintained consistent with current substation operations. Typical maintenance activities include equipment testing, equipment monitoring and repair, and emergency and routine procedures for service continuity and preventive maintenance. A major maintenance inspection would typically take place annually, lasting approximately one week.

Routine vegetation clearing would continue to occur at each substation on an as-needed basis for purposes of safety, access, and aesthetics. Vegetation clearing activities would typically involve the presence of one to two small maintenance vehicles and one or more employees to clear or trim vegetation to achieve the minimum working space around the substation facilities.

# 3.8 PROJECT DESIGN FEATURES AND ORDINARY CONSTRUCTION/ OPERATING RESTRICTIONS

The Proposed Project includes design features and ordinary construction and operating restrictions that avoid and minimize environmental impacts. The design features and ordinary construction and operating restrictions incorporated into the Proposed Project include measures that are routinely implemented by SDG&E on other projects that involve ground disturbance. Many of these features and restrictions have been developed over time to avoid and minimize environmental impacts, to comply with SDG&E's Subregional NCCP, and to comply with applicable environmental laws and regulations. Consistent with its existing operations and maintenance practices, SDG&E will implement these operating restrictions as appropriate during construction, operation, and maintenance to avoid and minimize potential environmental impacts.

Many of the design features and ordinary construction and operating restrictions incorporated into all phases of the Proposed Project are described below.

- Safety and Environmental Awareness Program. SDG&E will prepare a Safety and Environmental Awareness Program (SEAP) for project-personnel. The SEAP may include training for relevant topics such as:
  - General safety procedures,
  - General environmental procedures,
  - o Fire safety,
  - o Biological resources,
  - o Cultural resources,
  - Paleontological resources,
  - o Hazardous materials protocols and BMPs, and
  - o SWPPP.
- **Dulled galvanized steel structures.** New structures are designed utilizing dulled galvanized steel to avoid potential adverse effects relating to fire and fire damage, as well as adverse effects due to high moisture content in coastal areas. The dulled aspect of the steel poles also minimizes the potential for visual impacts relating to glare.
- Aerial marking. SDG&E will consult with the FAA and MCAS Miramar concerning aerial marking and lighting requirements for all new overhead facilities. As required, lighting and aerial marking will be added to applicable overhead facilities, including new structures, and OPGW.
- Sycamore to Peñasquitos Project Fire Plan. A project-specific fire prevention plan has been drafted for the Proposed Project consistent with *Electric Standard Practice 113.1* and the *SDG&E Fire Prevention Plan*. The project-specific fire plan identifies project-specific risk-related activities as well as measures (including tools and procedures) to address said risks.
- **Geotechnical report.** A geotechnical study will be conducted for the Proposed Project under the direction of a California-licensed Geotechnical Engineer or Certified Engineering Geologist, and recommendations identified in the geotechnical report will be carried out.
- **Construction scheduling.** To the greatest extent practical, SDG&E will plan construction of the Proposed Project such that any potential overlap with other SDG&E projects will be coordinated such that net impacts will be minimized.
- **Hazardous materials.** SDG&E shall address potential impacts relating to the handling and use of hazardous materials through compliance with numerous state and federal regulations, including, but not limited to:
  - Federal Occupational Safety and Health Administration (OSHA) regulations for worker safety in hazardous material remediation and hazardous waste operations (29 CFR Section 1910.120),
  - Federal OSHA regulations hazard communication for workers (29 CFR Section 1910.1200),

- Federal OSHA regulations for toxic air contaminants for workers (29 CFR Section 1910.1000),
- CalOSHA regulations for worker safety in hazardous material remediation and hazardous waste operations (8 California Code of Regulations [CCR] 5192),
- o CalOSHA regulations for hazard communication for workers (8 CCR 5194), and
- Department of Toxic Substances Control (DTSC) regulations implementing Resource Conservation and Recovery Act of 1976 (RCRA) and the California Hazardous Waste Control Law (HWCL) (22 CCR Division 4.5).
- **SDG&E Subregional NCCP.** The Proposed Project will avoid and minimize impacts to biological resources through implementation of the *SDG&E Subregional NCCP*. The *SDG&E Subregional NCCP* establishes a mechanism for addressing biological resource impacts incidental to the development, maintenance, and repair of SDG&E facilities within the *SDG&E Subregional NCCP* coverage area. The Proposed Project is located within the *SDG&E Subregional NCCP* coverage area.

The *SDG&E Subregional NCCP* includes a Federal Endangered Species Act (ESA) Section 10(A) permit and a California ESA Section 2081 memorandum of understanding (for incidental take) with an Implementation Agreement with the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW – formerly the California Department of Fish and Game), respectively, for the management and conservation of multiple species and their associated habitats, as established according to the Federal and State ESAs and California's NCCP Act. The NCCP's Implementing Agreement confirms that the mitigation, compensation, and enhancement obligations contained in the Agreement and the *SDG&E Subregional NCCP* meet all relevant standards and requirements of the California ESA, the Federal ESA, the NCCP Act, and the Native Plant Protection Act with regard to SDG&E's activities in the Subregional Plan Area.

Pursuant to the *SDG&E Subregional NCCP*, SDG&E will conduct pre-construction studies for all activities occurring off of existing access roads in natural areas. An independent biological consulting firm will survey all Proposed Project impact areas and prepared a Pre-activity Study Report (PSR) outlining all anticipated impacts related to the Proposed Project. The Proposed Project will include monitoring for all project components, as recommended by the PSR and outlined in the *SDG&E Subregional NCCP*, as well as other avoidance and minimization measures outlined in the NCCP's Operational Protocols. The PSR will be submitted to the CDFW and USFWS for review. Prior to the commencement of construction, a verification survey will be conducted of the Proposed Project disturbance areas, as required by the *SDG&E Subregional NCCP*.

Biological monitors will be present during construction to assure implementation of the avoidance and minimization measures. If the previously-delineated work areas must be expanded or modified during construction, the monitors will survey the additional impact area to determine if any sensitive resources will be impacted by the proposed activities, to identify avoidance and minimization measures, and to document any additional impacts. Any additional impacts are included in a Post-construction Report (PCR) for purposes of calculating the appropriate mitigation, which generally includes site enhancement or

credit withdrawal from the SDG&E mitigation bank. When construction is complete, the biological monitor will conduct a survey of the entire line to determine actual impacts from construction. The PCR will determine how much site enhancement and credit withdrawal from the SDG&E mitigation bank will be required to address impacts from project related activities. These impact and mitigation credit calculations are submitted to the USFWS and the CDFW as part of the NCCP Annual Report pursuant to requirements of the NCCP and the NCCP Implementing Agreement.

Specific operating restrictions that are incorporated into the Proposed Project design to comply with the *SDG&E Subregional NCCP* include the following:

- Vehicles would be kept on access roads and limited to 15 miles per hour (Section 7.1.1,  $1^{22}$ .).
- No wildlife, including rattlesnakes, may be harmed, except to protect life and limb (7.1.1, 2.).
- Feeding of wildlife is not allowed (Section 7.1.1, 4.).
- No pets are allowed within the ROW (Section 7.1.1, 5.).).
- Plant or wildlife species may not be collected for pets or any other reason. (Section 7.1.1, 7).
- Littering is not allowed, and no food or waste would be left on the ROW or adjacent properties (Section 7.1.1, 8.).
- Measures to prevent or minimize wild fires would be implemented, including exercising care when driving and not parking vehicles where catalytic converters can ignite dry vegetation (Section 7.1.1, 9.).
- Field crews shall refer all environmental issues, including wildlife relocation, dead, or sick wildlife, or questions regarding environmental impacts to the Environmental Surveyor. Biologists or experts in wildlife handling may be necessary to assist with wildlife relocations (Section 7.1.1, 10.).
- All SDG&E personnel would participate in an environmental training program conducted by SDG&E, with annual updates (Section 7.1.2, 11.).
- The Environmental Surveyor shall conduct preactivity studies for all activities occurring in natural areas, and will complete a preactivity study form including recommendations for review by a biologist and construction monitoring, if appropriate. The form will be provided to CDFW and USFWS but does not require their approval (Section 7.1.3, 13.).
- The Environmental Surveyor shall flag boundaries of habitats to be avoided and, if necessary, the construction work boundaries (Section 7.1.3, 14.).
- The Environmental Surveyor must approve of activity prior to working in sensitive areas where disturbance to habitat may be unavoidable (Section 7.1.4, 25.).).

<sup>&</sup>lt;sup>22</sup> References to Section Nos. is from the *SDG&E Subregional NCCP*.

- In the event SDG&E identifies a covered species (listed as threatened or endangered by the federal or state) of plant within the temporary work area (10 foot radius) surrounding a power pole, SDG&E would notify the USFWS (for Federal ESA listed plants) and CDFW (for California ESA listed plants) (Section 7.1.4, 28.).
- The Environmental Surveyor shall conduct monitoring as recommended in the preactivity study form (Section 7.1.4, 35.).
- Supplies, equipment, or construction excavations where wildlife could hide (e.g., pipes, culverts, pole holes, trenches) shall be inspected prior to moving or working on/in them (Section 7.1.4, 37, and 38.).
- Fugitive dust will be controlled by regular watering and speed limits (Section 7.1.4, 39.).
- During the nesting season, the presence or absence of nesting species (including raptors) shall be determined by a biologist who would recommend appropriate avoidance and minimization measures (Section 7.1.6, 50).
- Maintenance or construction vehicle access through shallow creeks or streams is allowed. However no filling for access purposes in waterways is allowed (Section 7.1.7, 52).
- Staging/storage areas for equipment and materials shall be located outside of riparian areas (Section 7.1.7, 53.).
- **SDG&E Water Quality Construction BMP Manual.** SDG&E's *Water Quality Construction BMPs Manual (BMP Manual)* organizes and presents SDG&E's standard water quality protection procedures for various specific actions that routinely occur as part of SDG&E's ongoing construction, operations, and maintenance activities. The primary focus of most BMPs is the reduction and/or elimination of potential water quality impacts during construction of linear projects such as the Proposed Project. The BMPs described within the *BMP Manual* were derived from several sources including the State of California guidelines as well as the Caltrans Water Quality BMPs. The *BMP Manual* will be utilized during construction (by way of preparation and implementation of the SWPPP), operation, and maintenance of the Proposed Project to ensure compliance with all relevant SDG&E and government-mandated regulatory water quality standards.
- Electric Standard Practice 113.1 Wildland Fire Prevention and Fire Safety. The Proposed Project will be constructed consistent with *Electric Standard Practice 113.1 Wildland Fire Prevention and Fire Safety. Electric Standard Practice 113.1* outlines practices and procedures for SDG&E activities occurring within areas of potential wildland fire threat within SDG&E's service territory. The Proposed Project design includes replacement of wood poles with steel poles, increased conductor spacing to maximize line clearances, installation of steel poles to withstand an extreme wind loading case and known local conditions, and undergrounding of a portion of the power line. These design components of the Proposed Project minimize the fire risk through enhanced safety and reliability of the power line system, particularly during extreme weather conditions. The standard practices in *Electrical Standard Practice 113.1* include avoidance and minimization measures to comply with state and local fire ordinances.

- **Temporary Lighting.** Temporary lighting at staging and storage areas will be directed on site and away from any sensitive receptors.
- **New Chain Link Fence.** New fencing installed as part of the Proposed Project including fencing around new cable poles will be a dull, non-reflective finish to reduce potential glare.
- **Visual screening of staging yards.** Where staging yards are visible to the public, opaque mesh or slats (or equivalent material) will be installed along the fence that will soften the view of the staging yard from public vantage points such as roads, residences, and public vantage points.
- Cable Pole Final Design and Screening. Final design of the eastern and western cable poles will consider design measures, such as landscaping installed outside of new perimeter chainlink fencing, decreased pole diameters, or increased setback from adjacent roadways, to reduce the visibility of each structure.
- **Materials.** Non-specular conductor and dulled galvanized steel poles will be used in order to reduce potential glare.
- **Restoring appearance of temporarily disturbed areas.** When Proposed Project construction has been completed, all temporarily disturbed terrain will be restored, as needed and as appropriate, to approximate preconstruction conditions. Re-vegetation would be used, where appropriate (re-vegetation in certain areas is not possible due to vegetation management requirements related to fire safety) to re-establish a natural appearing landscape and reduce potential visual contrast between disturbed areas and the surrounding landscape.
- **Soil disturbance.** Ground and soil disturbance will be minimized through the use of existing access routes, to the extent feasible.
- Soil stabilization. Once temporary surface disturbances are complete, areas that would not be subject to additional disturbance will be stabilized to control soil erosion. Disturbed areas must be stabilized per the project SWPPP.
- **Generators.** Generator use will be limited to less than 50 horsepower (HP) at all staging yards. Any generators used at the staging yards will be located away from noise sensitive areas, and positioned on the property to comply with local noise ordinances.
- **Mufflers.** Functioning mufflers will be maintained on all equipment.
- **Helicopter use.** Any helicopter use will comply with all relevant usage restrictions including those imposed by the FAA and Caltrans. SDG&E and/or the construction contractor will coordinate with local air traffic control and comply with applicable FAA regulations regarding helicopter use to prevent conflict with air traffic generated by local airports. Helicopter usage will conform to acceptable hours for construction activities, as outlined within the applicable local noise codes and ordinances.
- **Congested Area Plan.** As required, a CAP will be prepared, based upon actual helicopter usage, pursuant to FAA regulations (14 CFR 137.51).
- **Resident notification.** Residents within 50 feet of Proposed Project alignment will receive notification of the start of construction at least one week prior to the start of construction activities within that area.

- **Construction noise.** For the few locations where the Proposed Project would exceed the noise ordinances, as discussed previously, SDG&E would meet and confer with the appropriate City to discuss temporarily deviating from the requirements of the Noise Code, as described in the construction noise variance process (see Section 4.10.3.1).
- **Blasting.** In the unlikely event that rock blasting is used during construction, a noise and vibration calculation will be prepared and submitted to SDG&E Environmental Programs and Transmission Engineering and Design for review before blasting at each site. The construction contractor will ensure compliance with all relevant local, state, and federal regulations relating to blasting activities, as well as SDG&E's blasting guidelines.
- **Coordination and measures within parks and preserves**. Appropriate safety measures will be implemented where trails and parks are located in close proximity to construction areas to provide a safety buffer between recreational users and construction areas. Construction schedule and activities will be coordinated with the authorized officer for each affected recreation area.
- **Temporary trail detours.** Where feasible, temporary detours will be provided for trail users. Signs will be provided to direct trail users to the temporary trail detours.
- **Standard Traffic Control Procedures.** SDG&E will implement traffic control plans to address potential disruption of traffic circulation during construction activities and address any safety issues. These traffic control plans will be prepared by the project engineer or contractor and subject to approval by the appropriate jurisdictional agency, such as the City of San Diego and Caltrans.
- Encroachment permits. SDG&E will obtain the required encroachment permits from the City of San Diego for crossings at city streets and Caltrans for work near I-15 and Hwy 56, and will ensure that proper safety measures are in place while construction work is occurring near public roadways. These safety measures include flagging, proper signage, and orange cones to alert the public to construction activities near the roadway.

#### **3.9 APPLICANT PROPOSED MEASURES**

In addition to the above project design features and ordinary construction/operating restrictions included as part of the Proposed Project description, SDG&E will also incorporate the APMs that have been identified and developed specifically for the Proposed Project during the preparation of the PEA. Table 3-15, Applicant Proposed Measures by Resource Area identifies the APMs that are applicable to each resource area and Table 3-16, Applicant Proposed Measures, details the complete APMs. The various resource sections of this document outline how and when the APMs will be applied to avoid or minimize impacts to a less than significant level.

Linear electric infrastructure projects, such as this one, typically traverse multiple jurisdictional boundaries, natural resource features, and habitat types. Until final design, and in some cases until installation, utility projects must remain more flexible in the definition of their ultimate configuration and placement than most non-linear projects. The Proposed Project may encounter unique topographical and natural features or site-specific engineering challenges along the transmission line ROW that could not be reasonably foreseen and specifically planned for in advance. The APMs take into consideration the potential for the Proposed Project to encounter

such features and enhance SDG&E's ability to avoid or minimize future potential impacts to sensitive environmental resources.

The APMs allow for limited project design flexibility while avoiding or minimizing environmental impacts, to the extent feasible. As defined in CEQA, "feasible" is defined as being "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors" while attaining the project's basic objectives and its purpose and need.

SDG&E would be responsible for overseeing the assembly of the construction and environmental teams that would implement and evaluate the Proposed Project APMs. SDG&E maintains an environmental compliance management program to allow for implementation of the APMs to be monitored, documented, and enforced during each Proposed Project phase, as appropriate. All of those contracted by SDG&E to perform this work would be contractually bound to properly implement the APMs to ensure their effectiveness in reducing potential environmental effects. Table 3-16 details each of the 17 APMs that will be implemented during construction, operation, and maintenance of the Proposed Project.

Resource Area	Relevant Applicant Proposed Measures
Aesthetics	none
Agriculture and Forestry Resources	none
Air Quality and Greenhouse Gases	none
Biological Resources	APM BIO-1
Cultural Resources	APM CUL-1 through CUL-8
Geology, Soils, and Minerals	none
Hazards and Hazardous Materials	none
Hydrology and Water Quality	none
Land Use and Planning	none
Noise	none
Population and Housing	none
Public Services	APM PS-1, PS-2, PS-3, PS-4 and PS-5
Recreation	none
Transportation and Traffic	APM TR-1
Utilities and Service Systems	none
Cumulative Impacts	APM CUM-1 and CUM-2

 Table 3-15: Applicant Proposed Measures by Resource Area

APM Number	Description
	Special-Status Plant Species:
	Implementation of the following measures will ensure impacts to special-status plant species remain less than significant:
	• Prior to construction, SDG&E shall retain a qualified biologist to conduct focused, special-status plant surveys during the spring and summer 2014 in all habitats that may support the special-status plant species with a potential to occur in the Proposed Project Survey Area.
	• Locations of special-status plants shall be identified and inventoried.
BIO-1	• The qualified biologist shall supervise construction activities within the vicinity of areas identified as having special-status plant species.
	• Impacts to special-status plant species shall be avoided to the maximum extent possible by installing fencing or flagging, marking areas to be avoided in construction areas, and limiting work in areas identified as having special-status plant species to periods of time when the plants have set seed and are no longer growing.
	Where impacts to special-status plant species are unavoidable, the impact shall be quantified and compensated though off-site land preservation, plant salvage, transplantation, or other appropriate methods as determined by the qualified biologist. Alternatively, if the special-status plant species in question is a <i>SDG&amp;E Subregional NCCP</i> covered species, mitigation consistent with measures established in the NCCP and discussed in the <i>SDG&amp;E Subregional NCCP</i> , above, shall be provided.
CUL-1	A qualified archaeologist would attend preconstruction meetings, as needed, and a qualified archaeological monitor would monitor activities in the vicinity of all known cultural resources within the Proposed Project area. The requirements for archaeological monitoring would be noted on the construction plans. The archaeologist's duties would include monitoring, evaluation of any finds, analysis of collected materials, and preparation of a monitoring results report conforming to Archaeological Resource Management Reports guidelines.
CUL-2	Known cultural resources that will be avoided would be demarcated as Environmentally Sensitive Areas. Construction crews would be instructed to avoid disturbance of these areas.

# Table 3-16: Applicant Proposed Measures

APM Number	Description
CUL-3	In the event that cultural resources are discovered, the archaeologist would have the authority to divert or temporarily halt ground disturbance to allow evaluation of potentially significant cultural resources. The archaeologist would contact SDG&E's Cultural Resource Specialist and Environmental Project Manager at the time of discovery. If the resource was discovered on MCAS Miramar, the base archaeologist would also be contacted by SDG&E. The archaeologist, in consultation with SDG&E's Cultural Resources. SDG&E's Cultural Resource Specialist and Environmental Project Manager must concur with the evaluation procedures to be performed before construction activities are allowed to resume. For significant cultural resources, a Research Design and Data Recovery Program would be prepared and carried out to mitigate impacts.
CUL-4	All collected cultural remains would be cataloged, and permanently curated with an appropriate institution. All artifacts would be analyzed to identify function and chronology as they relate to the history of the area. Faunal material would be identified as to species.
CUL-5	An archaeological monitoring results report (with appropriate graphics), which describes the results, analyses, and conclusions of the monitoring program, would be prepared and submitted to SDG&E's Cultural Resource Specialist and Environmental Project Manager following termination of the program. Any new cultural sites or features encountered would be recorded with the South Central Information (SCIC).
CUL-6	Native American monitoring may be implemented if transmission line construction has the potential to impact identified and mapped traditional locations or places. The role of the Native American monitor shall be to represent tribal concerns and communicate with the tribal council. Appropriate representatives will be identified based on the location of the identified traditional location or place.
CUL-7	A paleontological monitor would work under the direction of a qualified Project paleontologist and would be on site to observe excavation operations that involve the original cutting of previously undisturbed deposits for the eight poles located within paleontologically sensitive formations (i.e., Friars, Mission Valley, Scripps and the Ardath Shale Formations). A paleontological monitor is defined as an individual who has experience in the collection and salvage of fossil materials.

# Table 3-16 (cont.): Applicant Proposed Measures

APM Number	Description				
CUL-8	In the event that fossils are encountered, the paleontological monitor would 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 paleontologist would contact SDG&E's Cultural Resource Specialist and Environmental Project Manager at the time of discovery. The paleontologist, in consultation with SDG&E's Cultural Resource Specialist and Environmental Project Manager SDG&E's Cultural Resource Specialist and Environmental Project Manager must concur with the evaluation procedures to be performed before construction activities are allowed to resume. Because of the potential for recovery of small fossil remains, it may be necessary to set up a screen-washing operation on site. If fossils are discovered, the paleontologist (or paleontological monitor) would recover them along with pertinent stratigraphic data. In most cases, this fossil salvage can be completed in a short period of time. Because of the potential for recovery of small fossil remains, such as isolated mammal teeth, recovery of bulk-sedimentary-matrix samples for off-site wet screening from specific strata may be necessary, as determined in the field. Fossil remains collected during monitoring and salvage would be cleaned, repaired, sorted, cataloged, and deposited in a scientific institution with permanent paleontological collections, and a paleontological monitoring report would be written.				
PS-1	Where construction within existing public parks, preserves, and open space areas would not completely restrict access through these areas, and where necessary, SDG&E will create temporary foot and bicycle paths along with appropriate advanced notice and signage to direct and allow for the pedestrian and bicycle access through each affected park.				
PS-2	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-3	All construction activities will be coordinated with the authorized officer for each affected park, trail, or recreational facility prior to construction in these areas.				
PS-4	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-5	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 Proposed Project. SDG&E will replace or repair any damaged or removed public equipment, facilities, and infrastructure in a timely manner.				

# Table 3-16 (cont.): Applicant Proposed Measures

APM Number	Description
TR-1	SDG&E will coordinate with local emergency response agencies during all construction within Carmel Valley Road. Coordination with local emergency response agencies (in addition to project design features and ordinary construction/operating restrictions detailed in Section 3.8) would ensure that impacts to emergency access are less than significant.
CUM-1	If any SDG&E system upgrade projects develop the potential to overlap with the Proposed Project, coordination of construction will be undergone to reduce cumulative impacts and minimize overall disruption to adjoining land uses.
CUM-2	If any City of San Diego CIP projects have the potential to directly conflict with Proposed Project construction activities, SDG&E shall coordinate with the City of San Diego CIP to ensure construction activities can be coordinated such that construction would not occur concurrently at the same location.

# Table 3-16 (cont.): Applicant Proposed Measures

#### 3.10 REQUIRED APPROVALS

The CPUC is the lead California agency for the Proposed Project. SDG&E must comply with the CPUC's General Order 131-D, which contains the permitting requirements for the construction of the Proposed Project. This PEA is being prepared as support for an application to obtain a CPCN for the Proposed Project.

In addition to the CPCN, SDG&E will obtain approval for the Proposed Project from other Federal, State, and local agencies, as required. Table 3-17, Anticipated Potential Permit, Approval, and Consultation Requirements identifies these other permits, approvals, and licenses that SDG&E anticipates to be required for the Proposed Project. Some of these anticipated required approvals are further detailed in the following subsections.

#### 3.10.1 MCAS Miramar

The existing Sycamore Canyon Substation and approximately 1,150 feet of the new 230 kV transmission line route are located on MCAS Miramar (refer to Appendix 3-B). Therefore, construction of the Proposed Project would require approval from MCAS Miramar in the form of a Tier 1 Approval from the Committee for Land and Airspace Management Policy, or CLAMP. The Proposed Project would also need to comply with the National Environmental Policy Act (NEPA). MCAS Miramar staff would determine the appropriate NEPA compliance action following SDG&E's submittal of a Tier 1 application and supporting documentation.

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Permit/Approval/Consultation	Agency	Jurisdiction/Purpose	Permit Status
Federal Agencies			
NEPA Compliance, Tier 1 Approval	MCAS Miramar/ CLAMP	Construction on MCAS Miramar.	To be submitted
Federal Endangered Species Act Consultation	United States Fish & Wildlife Service	Impacts to listed species during installation of new facilities	Consultation complete and valid Habitat Conservation Plans apply; SDG&E to coordinate with USFWS prior to and following construction.
Clean Water Act Section 404 <sup>1</sup>	United States Army Corps of Engineers	Impacts to waters of the U.S.	Not anticipated to be required
Lighting and Aerial Marking	FAA and MCAS Miramar	Construction of overhead facilities potentially requiring aerial marking	To be submitted
CAP	FAA	Use of helicopters within populated areas	To be submitted
State Agencies			
CPCN	CPUC	Overall project approval and CEQA review	PEA submitted concurrent with CPCN application
NPDES–General Construction Permit	State Water Resources Control Board	Stormwater discharges associated with construction activities disturbing more than one acre of land.	To be submitted
Section 401 Water Quality Certification <sup>1</sup>	RWQCB	Impacts to waters of the U.S.	Not anticipated to be required

# Table 3-17: Anticipated Potential Permit, Approval, and Consultation Requirements

Permit/Approval/Consultation	Agency	Jurisdiction/Purpose	Permit Status
California Endangered Species Act Consultation	CDFW	Impacts to listed species during installation of new facilities	Consultation complete and valid <i>SDG&amp;E</i> <i>Subregional NCCP</i> applies; SDG&E to coordinate with CDFW prior to and following construction.
Section 1602 of the California Fish and Game Code <sup>1</sup>	CDFW	Impacts to waters of the State of California	Not anticipated to be required
Encroachment Permit	Caltrans	Construction, operation, and maintenance within, under, or over state highway ROW	To be submitted
Local Agencies <sup>2</sup>	•		•
Encroachment Permit and Traffic Control Plan(s)	City of San Diego	Construction within, under, or over city roadways (Carmel Valley Road)	To be submitted
Coastal Development Permit (if required)	City of San Diego	Construction of facilities within California Coastal Zone	To be submitted
Temporary Use Permit	City of Poway	Utilization of Stowe Staging Yard	To be submitted
Notes:			

# Table 3-17 (cont.): Anticipated Potential Permit, Approval, and Consultation Requirements

Table contents based upon preliminary engineering and are subject to change.

<sup>1</sup> Permit is not currently anticipated to be required, but may be required as a result of further refined project design or direct consultation with regulatory agencies.

 $^{2}$  Noise variance approvals are not included herein as SDG&E will 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 and therefore this process is not listed within this table.

# 3.10.2 CDFW and USFWS Coordination and Implementation of the SDG&E Subregional NCCP

Potential impacts to protected species and sensitive habitat, including (but not necessarily limited to) the California gnatcatcher and associated coastal sage scrub habitat, could occur during construction of the Proposed Project (refer to Section 4.4, Biological Resources). These impacts are anticipated to be covered under the *SDG&E Subregional NCCP* and the *SDG&E Low-Effect Habitat Conservation Plan for the Quino Checkerspot Butterfly (SDG&E QCB HCP)*. Because the Proposed Project includes new structures and facilities, SDG&E would coordinate with both the CDFW and USFWS prior to construction regarding potential impacts to covered species.

# 3.10.3 Coastal Zone Compliance

A portion of the proposed transmission line route is located within the Coastal Zone. In general, any development within the Coastal Zone requires a coastal development permit, either from the California Coastal Commission or a local agency that has been delegated the authority to issue coastal development permits. Some development activities do not require coastal development permits, either because they are excluded from permit requirements or because the permit requirement is waived. SDG&E anticipates that a coastal development permit could be required to construct a segment of the Proposed Project within the City of San Diego North City Local Coastal Program. In the event a coastal development permit is required, the City of San Diego would review the activities proposed within the Coastal Zone for compliance with the North City Local Coastal Program.

# 3.11 IMPLEMENTATION PLAN

# **3.11.1 Introduction**

The Proposed Project will be managed on a Project Management matrix basis, with a dedicated Project Manager from SDG&E's Major Projects department. Given the large project scope, cost, long material lead time, and abbreviated construction period, procurement of major long lead time materials must be authorized to begin prior to regulatory approval. Extensive engineering support will be required during the regulatory process and will continue through the end of construction of the Proposed Project.

Construction cannot begin until after regulatory approval. Any required ministerial and resource permits identified in the regulatory approval process, must also be obtained before construction can begin in the affected areas.

#### 3.11.2 Project Management Team

The Project Manager will have the overall responsibility and commensurate authority for successful completion of the Proposed Project. Responsibilities may include, but are not limited to: planning, obtaining regulatory approvals, cost management, scheduling, execution (final engineering, procurement, and construction), and the overall quality of the project. Project work will be conducted using a matrix based Project Management model. All personnel assigned to the Proposed Project functionally report to the Project Manager for all project-related work. During the life of the Proposed Project, the Project Team will consist of a number of specialized teams and support personnel with special areas of expertise. Because of the changing nature of

project needs as it progresses through the development, regulatory approval, and construction phases, the Project Team may also change to meet the Proposed Project needs. SDG&E creates Project Teams for major projects that typically include the following key positions, as applicable<sup>23</sup>:

- Project Manager (Major Projects Group staff)
- Environmental Lead (Environmental Services Group staff) Pre-Construction
- Environmental Project Manager and Compliance Lead (Environmental Project Management staff) Construction and Post-Construction
- Transmission Lead, including as applicable a lead overhead and underground designer (Transmission Engineering and Design Group staff)
- Substation Lead (Substation Engineering and Design Group staff)
- Public Affairs Lead (Public Affairs and Project Communication Group staff)
- Land and ROW (Corporate Real Estate and Planning Group staff)
- Legal and Regulatory Leads (Environmental Law, Regulatory Law, and Regulatory Group staff)

The Project Manager is responsible for the formation and management of the Project Team. The Project Manager coordinates with the Group Team Leaders and Managers to ensure that the proper staff members are available to support each project. The assigned lead technical staff (e.g. Environmental Lead or Transmission Lead) are responsible for the aspects of the Proposed Project applicable to their respective discipline. The duties for the assigned technical staff include assisting the Project Manager with the engagement and management of any consultants and contractors that are utilized.

The Major Projects Group will use a combination of project management, scheduling, and cost tracking software tools which would be applied to common business processes to work more efficiently. SDG&E has developed and maintains a Major Projects Project Governance Guide, which outlines the use of project management software tools and key staff responsibilities. Projects of this size generally use various types of software either for specific processes and/or functional areas and it's not uncommon to see a software platform used across many functional areas in an attempt to integrate and maximize information sharing and reporting.

#### 3.11.3 Project Construction Management Plan

The complexities of the Proposed Project may necessitate the use of alternative construction management approaches. The construction management option to be selected will be based on SDG&E's need to optimize its use of "in-house" resources and expertise in the most effective manner. SDG&E may utilize an Engineering, Procurement, and Construction (EPC) contract for the Proposed Project or some variation of this type of contracting. Under an EPC contract, an

<sup>&</sup>lt;sup>23</sup> Key project team members and the extent of involvement of each team member is determined based upon the individual needs of each project. For example, a project that does not involve substation work might not have a substation lead assigned to the project.

SDG&E contractor completes the final designs, procures the necessary SDG&E specified materials and constructs the project, either directly or by subcontracting portions of the work. The selected contractor therefore would potentially carry the risk for the schedule and budget related to the engineering, procurement and construction of the Proposed Project. This would result in more known and agreed upon pricing prior to final engineering. The SDG&E Project Team and SDG&E Contract Administrators would provide cost, schedule, quality control and progress oversight during construction.

In addition, SDG&E may utilize its Environmental Project Management structure to ensure compliance during construction. An Environmental Project Manager would be assigned to the Proposed Project to oversee all permit and environmental compliance management during construction. Under the Environmental Project Manager, SDG&E typically utilizes an Environmental Compliance Lead and a Lead Environmental Inspector. The key purposes of the Environmental Management structure is to ensure compliance throughout construction including coordination with applicable resource and oversight agencies, coordination with the CPUC's environmental compliance consultant, coordination of all specialty monitoring requirements, and coordination with the construction management team for all matters relating to permit and environmental compliance.

# 3.12 REFERENCES

- California Independent System Operator (CAISO). March 4, 2014. Sycamore-Penasquitos Project – Project Sponsor Selection Report.
- San Diego Gas & Electric Company (SDG&E). December 15, 1995. Subregional Natural Community Conservation Plan.
- San Diego Gas & Electric Company (SDG&E). July 2009. *Electric Standard Practice No. 113.1* – Wildland Fire Prevention and Fire Safety.
- San Diego Gas & Electric Company (SDG&E). December 2012. Fire Prevention Plan.
- San Diego Gas & Electric Company (SDG&E). June 3, 2013 (revised July 9, 2013). Transmission Project Sponsor Proposal Application Submitted to California ISO.
# 4.0 ENVIRONMENTAL IMPACT ASSESSMENT

This section of the PEA presents an evaluation of the potential impacts associated with the Proposed Project for identified environmental resource areas derived from CPUC requirements, Public Utilities Code Section 1001-1013, and CEQA requirements, PRC Section 21080 et seq.

For each resource area, the analysis includes a description of the existing environment and an evaluation of potential adverse and beneficial environmental consequences (also referred to as environmental impacts or effects) associated with the construction, operation and maintenance of the Proposed Project. In general, construction-related impacts discussed within the PEA are those temporary impacts that could occur as a result of construction activities. However, permanent impacts to biological resources are discussed as construction impacts (see Section 4.4, Biological Resources) in order to maximize consistency with the SDG&E Subregional NCCP. which addresses avoidance and minimization of biological resources for all of SDG&E's activities relating to the Proposed Project. Operations and maintenance-related impacts discussed within the PEA are those permanent (or on-going) impacts that result from the operation and maintenance of the Proposed Project facilities following completion of construction. To the extent operation and maintenance of the Proposed Project will occur in the same location as existing facilities and would have the same or substantially the same impacts, frequency and duration as operation and maintenance activities of the existing facilities, such activities are incorporated into the existing environmental setting and baseline for assessing impacts. Cumulative impacts are considered to account for other activities in the area which, when considered together with the Proposed Project, could potentially compound or increase environmental impacts.

The analyses presented in this section are based on the following: (1) details of the Proposed Project as presented in Section 3.0, Proposed Project Description; (2) requirements under CEQA and the *CEQA Guidelines;* (3) CPUC requirements, including General Order 131-D and guidance materials; and (4) consideration of input from responsible and reviewing agencies.

Potential impacts are identified and evaluated based upon the significance criteria outlined in Appendix G of the *CEQA Guidelines*. A completed CEQA checklist for each resource area is provided at the beginning of each resource chapter. For example, the completed aesthetics CEQA checklist is provided on Page 4.1-1 of the Aesthetics Section of the PEA. Furthermore, applicant proposed minimization and avoidance measures or APMs are outlined at the end of each impact assessment section and have been incorporated into the design of the Proposed Project where potentially significant impacts are found to be present for a particular resource area. The complete list of APMs included as part of the Proposed Project is provided in Table 3-16, Applicant Proposed Measures.

The individual impact assessments for each of the resource areas are organized within Section 4 of this PEA as follows:

- 4.1 Aesthetics
- 4.2 Agriculture and Forestry Resources
- 4.3 Air Quality and Greenhouse Gases
- 4.4 Biological Resources
- 4.5 Cultural Resources
- 4.6 Geology, Soils, and Minerals
- 4.7 Hazards and Hazardous Materials
- 4.8 Hydrology and Water Quality
- 4.9 Land Use and Planning
- 4.10 Noise
- 4.11 Population and Housing
- 4.12 Public Services
- 4.13 Recreation
- 4.14 Transportation and Traffic
- 4.15 Utilities and Service Systems
- 4.16 Cumulative Impacts

Technical support and reference for the impact assessments are provided in the following technical appendices:

- Appendix 4.3-A: Air Quality Construction Emissions
- Appendix 4.4-A: Biological Technical Report
- Appendix 4-5-A: Archaeological Survey Report (Appendices are Confidential)
- Appendix 4-5-B: Paleontological Resources Record Search
- Appendix 4.7-A: EDR Database Search Results

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## 4.1 **AESTHETICS**

Would	d the project:	Potentially Significant Impact	Potentially Significant Unless APMs Incorporated	Less than Significant Impact	No Impact
a.	Have a substantial adverse effect on a scenic vista?			$\mathbf{\nabla}$	
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				Ŋ
c.	Substantially degrade the existing visual character or quality of the site and its surroundings?			$\mathbf{\nabla}$	
d.	Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?			V	

#### 4.1.1 Introduction

This section of the PEA describes the existing conditions relating to visual and aesthetic resources within the Proposed Project area and potential impacts to these resources that could result from the construction, operation, or maintenance of the Proposed Project.

Visual or aesthetic resources are generally defined as both the natural and built features of the landscape that are seen and that contribute to the public's experience and appreciation of the environment. Visual or aesthetic resource impacts are generally defined in terms of a project's physical characteristics and potential visibility and the extent to which its presence would alter the perceived visual character and quality of the environment. Potential impacts of the Proposed Project to aesthetic resources would be less than significant.

#### 4.1.2 Methodology

The visual analysis is based on review of technical data including Proposed Project maps and drawings provided by SDG&E, aerial and ground level photographs of the Proposed Project area, local planning documents, and computer-generated visual simulations. Field observations were conducted in October 2013 to document existing visual conditions in the Proposed Project area and to identify potentially affected sensitive viewing locations. Sensitive viewing locations were identified based upon CEQA criteria and include the following:

- Locations along designated scenic roadways;
- Recognized Scenic Vista points;
- Nearby residences in San Diego and Poway; and
- Publicly accessible locations where visible project changes could be particularly noticeable.

This visual study employs assessment methods based, in part, on the U.S. Department of Transportation (DOT), Federal Highway Administration's (FHWA), and other accepted visual analysis techniques as summarized by Smardon, et al. (1986). This study also addresses the *CEQA Guidelines* for visual impact analysis. This analysis systematically documents the visual setting and evaluates visual changes associated with the Proposed Project. In order to convey a sense of existing visual conditions, a set of 24 photographs depict representative public views of the Proposed Project area. As depicted in these photographs, public views of the Proposed Project area currently include electric transmission, distribution, and substation facilities. These existing conditions constitute the baseline from which visual impacts are evaluated.

Consistent with FHWA methods, this impact analysis describes changes to existing visual resources and assesses probable viewer responses to such changes. This assessment evaluates representative views from which the Proposed Project would be visible to the public. In order to document the visual change that would occur, visual simulations show the Proposed Project from key representative public viewpoints, or Key Observation Points (KOPs). The visual impact assessment is based on evaluation of the changes to the existing visual resources that would result from construction and operation of the Proposed Project. These changes were assessed, in part, by evaluating the after views provided by the computer-generated visual simulations and comparing them to the existing visual environment.

# 4.1.2.1 <u>Visual Simulation Methods</u>

Visual simulations were produced using established computer-modeling and rendering techniques. The simulations illustrate the visual change associated with the Proposed Project as seen from publicly accessible KOPs within the Proposed Project area. Taken together, the set of simulations illustrate the representative visual change associated with the Proposed Project. The KOP locations were selected to represent sensitive viewing locations, as described in Section 4.1.2, and to represent the views of the largest number of affected viewers.

The visual simulations produced by Environmental Vision are the results of an objective computer modeling process; the technical methods employed for producing the computer-generated simulation images are outlined below (see Figures 4.1, Regional Landscape Context and 4.1-2 through 4.1-13 Photographs and Simulations).

High resolution digital photographs were taken using a single lens reflex (SLR) camera with a 50 millimeter (mm) lens or equivalent which represents a horizontal view angle of 40 degrees. An exception is Figure 4.1-8, that uses a 35 mm lens equivalent, representing a slightly wider horizontal view angle of 55 degrees to show the Proposed Project at Oviedo Street. Systematic documentation of photography viewpoint locations included Global Positioning System (GPS) recording and photograph log sheet and basemap annotation. Three–dimensional (3-D) computer modeling for proposed transmission structures, developed using engineering design data supplied by SDG&E, was combined with geographic information system (GIS) and engineering data and digital aerial photographs of the existing site to produce digital modeling for visual analysis and simulation of the Proposed Project. For the simulation viewpoints, photograph locations were incorporated based on GPS field data, using 5 feet as the assumed eye level.

Computer "wireframe" perspective plots were overlaid on the photograph to verify scale and viewpoint locations. Digital visual simulation images were then produced based on computer renderings of the 3-D modeling combined with selected digital photographs of the sites.

Digital photographs and computer modeling and rendering techniques were also employed by Burns and McDonnell engineers to produce two visual simulations that portray the appearance of proposed cable pole structures (refer to Figures 4.1-9 and 4.1-10).

The final "hardcopy" visual simulation images contained in this visual analysis were printed from the digital image files and produced in color on 11 by 17 inch sheets. The simulation figures present two images per sheet - an existing view with a simulation below that portrays the Proposed Project from the corresponding KOP. A summary of the ten simulation views and a description of the particular Proposed Project changes portrayed in each of the views are included in Section 4.1.4.

## 4.1.3 Existing Conditions

## 4.1.3.1 <u>Regional and Local Landscape Setting</u>

The Proposed Project is located on the California coastal plain of western San Diego County, approximately 30 miles west of the Laguna Mountains and 20 miles north of San Diego Bay (refer to Figure 4.1-1). Landforms in the Proposed Project area generally consist of rolling hills, canyons, and mesas, or flat-topped outcroppings, and canyon rims. From some locations in the Proposed Project area, hillsides and peaks are visible landscape features in the distance. Dominant landmarks within the Proposed Project vicinity are Black Mountain with a peak of approximately 1,500 feet above sea level and Los Peñasquitos Canyon and its tributaries. This east-west lying coastal ravine reaches approximately 250 feet in depth and almost 1 mile across. Elevations along the Proposed Project route range from approximately 250 to 900 feet above sea level, primarily traversing rolling hills, ridgelines, and canyons.

Rainfall in the region is limited, and native vegetation is typically sparse and low growing chaparral and coastal sage scrub. In open areas exposed rock and soil are commonly visible. Where streams in this area flow year round, dense vegetation occurs along riparian corridors; however, it is mostly limited to valley bottoms, as well as to areas of human influence and habitation.

The Proposed Project begins at Sycamore Canyon Substation, located on the northern edge of the MCAS Miramar and trends in a northwest to southwest arc, terminating at Peñasquitos Substation, in the community of Torrey Hills. The Proposed Project route travels through many northern communities of the City of San Diego, as well as a small section of the City of Poway. The Proposed Project route lies near or crosses portions of three major regional open spaces: Black Mountain Open Space Park, Los Peñasquitos Canyon Preserve and Del Mar Mesa Preserve. Additionally, the route passes near a number of local parks (see Figure 4.9-1 Proposed Route Land Use Map, for location of parks and open space).

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The eastern half of the route is generally more densely populated than the western portion. As the Proposed Project travels northwest from Sycamore Canyon Substation, it crosses through the communities of Rancho Encantada, Scripps Miramar Ranch, Miramar Ranch North, and Rancho Peñasquitos, as well as the City of Poway, transitioning often between residential/commercial areas and undeveloped land. In this area, the route crosses or is in proximity to a number of major roadways, including I-15 and State Route 56 (SR-56), as well as regional roadways such as Pomerado Road, Scripps-Poway Parkway, Poway Road, Carmel Valley Road and Carmel Mountain Road. In Black Mountain Ranch Community Park, in the community of Black Mountain Ranch, the route changes direction and heads generally southwest along Carmel Valley Road, then through mostly undeveloped areas within the community boundaries of Pacific Highlands Ranch, Torrey Highlands, Del Mar Mesa, and Carmel Valley where it passes near residential areas along the northern rim of Los Peñasquitos Canyon. The Proposed Project terminates in the community of Torrey Hills, at the Peñasquitos Substation.

Nighttime lighting in the Proposed Project area includes street lighting, as well as localized lighting sources associated with residential and commercial development.

## 4.1.3.2 <u>Proposed Project Viewshed</u>

The Proposed Project viewshed is defined as the general area from which the project is visible or can be seen. For purposes of describing a project's visual setting and assessing potential visual impacts, the viewshed can be broken down into distance zones of foreground, middleground, and background. The foreground is defined as the zone within a quarter to a half-mile from the viewer. Landscape detail is most noticeable and objects generally appear most prominent when seen in the foreground. The middleground can be defined as a zone that extends from the foreground up to three to five miles from the viewer, and the background extends from about three to five miles to infinity.

Analysis of the Proposed Project primarily considers the potential effects of Proposed Project elements on foreground viewshed conditions, although consideration is also given to middleground and background views. As described below, the Proposed Project would be visible from some nearby locations along public roads. In addition, it would be seen from a limited number of residential and public recreation areas. At many locations, intervening natural landforms would partially or fully screen public views of the Proposed Project. Given these conditions as well as the length of the overall Proposed Project alignment, the Proposed Project would not be visible in its entirety from any single viewing location.

Within the Proposed Project area, transmission structures, including substations, steel and wood poles, and overhead conductors associated with existing transmission and power lines including the Proposed Project, are established features seen within the landscape setting.

## 4.1.3.3 <u>Project Segments and Representative Views</u>

The Proposed Project is divided into four segments based upon the type and location of proposed facilities (refer to Section 3.3, Proposed Project Description). This section includes a description of existing visual conditions and landscape character found along each of the four Proposed Project segments. Table 4.1-1, Summary of Project Segments, summarizes length, location, and

representative views along the segments. Figure 4.1-2, Photograph Viewpoint Locations, delineates the Proposed Project route, and photograph viewpoint locations. Figures 4.1-3a through 4.1-3l, Photographs of Existing Facilities and Environmental Setting, present a set of 24 photographs that show representative visual conditions and existing public views within the Proposed Project area.

As described in the following text and depicted in the environmental setting photographs, utility structures such as overhead lines, existing steel lattice transmission towers, existing tubular steel transmission and power line structures, two-pole wood H-frame structures or substation facilities are seen throughout most of the Proposed Project area, including the majority of the approximately 13.9 miles of overhead corridor. The only segment of the Proposed Project alignment that does not contain existing utility structures is Segment B (Carmel Valley Road), which is proposed to have the new 230 kV transmission line installed in an underground position. Segments A, C, and D of the Proposed Project alignment all contain three existing circuits (power and transmission lines) on two sets of support structures. Within each of these segments, existing support structures include 230 kV structures that are similar in size to the Proposed Project structures.

Project Segment (Approximate length)	Segment Location	Primary Affected Viewers <sup>1</sup>	Representative Photograph Numbers <sup>2</sup>	Representative Simulation Figure
Segment A (8.31 miles)	Sycamore Canyon Substation to Carmel Valley Road	Residents, motorists, recreationalists	1 through 14	4.1-4 through 4.1-8
Segment B (2.84 miles)	Carmel Valley Road	Motorists and recreationalists	13 through 15	4.1-9 and 4.1-10
Segment C (2.19 miles)	Carmel Valley Road to Peñasquitos Junction <sup>3</sup>	Recreationalists and residents	15 through 18	4.1-11
Segment D (3.34 miles)	Peñasquitos Junction to Peñasquitos Substation	Recreationalists and residents	18 through 24	4.1-12 and 4.1-13

 Table 4.1-1: Summary of Project Segments

Notes:

<sup>1</sup>Section 4.1.3.4 includes a discussion of potentially affected viewers.

<sup>2</sup> Refer to Figure 4.1-2 for viewpoint locations.

<sup>3</sup> Peñasquitos Junction refers to the location where several existing power lines (TL 13804, TL 6906, and TL 675) turn from a north/south alignment and travel west into the Peñasquitos Substation.



Section 4.1 – Aesthetics

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#### Segment A: Sycamore Canyon Substation to Carmel Valley Road (Photographs 1 through 14)

Segment A extends approximately 8.31 miles and is situated in an area of low rolling hills and valleys with sparse native vegetation interspersed with developed areas that include ornamental landscaping, parks, and roadside trees. In this segment, the Proposed Project route follows existing overhead electric lines on two sets of support structures through areas of varied land use including open space, low to medium-density residential, and commercial/office development. Segment A crosses several regional roadways and two highways.

The segment begins at the Sycamore Canyon Substation, located on the northern edge of the MCAS Miramar, south of Beeler Canyon. Photograph 1 is a view toward the Sycamore Canyon Substation from Stonebridge Parkway looking southwest toward the substation. The substation is also visible from a limited number of residences located immediately north of Stonebridge Parkway. From the Sycamore Canyon Substation, the route proceeds northwest and the existing set of 138 kV overhead lines is supported primarily by wood H-frame structures adjacent to a mixture of taller 230 kV steel poles and lattice towers. Photograph 2, taken from Stonebridge Parkway near Sycamore Canyon Park, in the community of Rancho Encantada, shows the route's proximity to undeveloped land and residential areas. Transmission and power line structures along the Proposed Project route are visible in the distance on the hillside. Photograph 3 illustrates a close-range view of the Proposed Project route from residences on Fortino Point, in Rancho Encantada. Both existing 138 kV wood H-frames and 230 kV steel lattice structures are seen on the skyline. Photograph 4 is a view from northbound Pomerado Road where the Proposed Project route crosses the roadway 0.25 mile away; existing overhead transmission and power line structures along the Proposed Project route are visible on the left side of the photograph, beyond roadside vegetation.

After crossing Pomerado Road, the Proposed Project route continues along a series of ridges that border residential areas in the City of Poway (Photograph 5) and the communities of Scripps Miramar Ranch and Miramar Ranch North. It also passes near several parks, including Cypress Canyon Park, Butterfly Gardens Mini Park, and Spring Canyon Park; however, topography and vegetation screen the Proposed Project route from most locations. As the Proposed Project route continues northwest it crosses and then parallels Scripps-Poway Parkway, an east-west arterial road. In Photograph 6, an eastbound view from this roadway, existing transmission, power line structures and conductors along the Proposed Project route are visible to the left of the road and the closest poles are prominent along the skyline.

As the Proposed Project Route approaches Scripps Summit Drive, it shifts direction to the northnorthwest, crossing the eastern end of Los Peñasquitos Canyon, Poway Road, and I-15, a major north-south freeway. Photograph 7 shows the Proposed Project route crossing I-15, with existing wood H-frame, tubular steel transmission structures and conductors on the hillside to the left of the road, partially seen against the skyline and partially against the hillside beyond an overpass.

Directly north of I-15, the Proposed Project route crosses through the community of Rancho Peñasquitos, in a mixed commercial/residential area. Photograph 8, a view from this residential area, shows existing transmission and power line structures along the Proposed Project route as well as a portion of the existing Chicarita Substation. The Proposed Project route crosses a limited number of local streets, as well as Carmel Mountain Road (Photograph 10) and SR-56,

also known as the Ted Williams Parkway. Photograph 9 is a view from SR-56 showing one existing wood H-frame structure and two tubular steel transmission poles along the Proposed Project route visible against the sky on a knoll to the left of Rancho Peñasquitos Boulevard. From Carmel Mountain Road, the Proposed Project route continues northwest, traveling through residential areas and the western portion of Black Mountain Open Space Park. It also passes near Hilltop Community Park (Photograph 11), several schools, including Mt. Carmel High School, as well as residential areas. Photograph 12 shows the Proposed Project route crossing the roadway with residences located on the adjacent hillside. Segment A terminates north of Carmel Valley Road in Black Mountain Ranch Community Park (Photographs 13 and 14).

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1. Stonebridge Parkway near Deprise Cove looking southwest (Segment A)



2. Stonebridge Parkway near Sycamore Canyon Park looking west (Segment A) Refer to Figure 4.1-2 for photograph viewpoint locations



3. Fortino Point near Wild Meadow Place looking northeast (Segment A) \*



4. Pomerado Road near Stonebridge Parkway looking north (Segment A) \*

Refer to Figure 4.1-2 for photograph viewpoint locations \*Simulation View Sycamore



5. Treadwell Drive near Creek Bluff Drive looking west (Segment A)



6. Scripps-Poway Parkway at Scripps Creek Drive looking east (Segment A)\*

Refer to Figure 4.1-2 for photograph viewpoint locations \*Simulation View Sycamore

Sycamore to Peñasquitos 230 kV Transmission Line Project Photographs of Existing Facilities and Environmental Setting Figure 4.1-3c



7. Interstate Highway 15 northbound at Poway Road looking north (Segment A)



8. Calle De Las Rosas at Via De Cantera looking north (Segment A) Refer to Figure 4.1-2 for photograph viewpoint locations



9. State Route 56 eastbound near Rancho Peñasquitos Boulevard looking east (Segment A) \*



10. Carmel Mountain Road near Freeport Road looking west (Segment A)

Refer to Figure 4.1-2 for photograph viewpoint locations \*Simulation View Sycamore



11. Hilltop Community Park near Oviedo Way looking north (Segment A)



12. Oviedo Street near Rasmussen Way looking northwest (Segment A) \*

Refer to Figure 4.1-2 for photograph viewpoint locations \*Simulation View

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13. Carmel Valley Road near Black Mountain Park Way looking north (Segment A-B Junction)



14. Black Mountain Ranch Park looking south (Segment A-B Junction) \*\*

Refer to Figure 4.1-2 for photograph viewpoint locations \*\*Simulation View. Photograph taken by Burns McDonnell.

Sycamore to Peñasquitos 230 kV Transmission Line Project Photographs of Existing Facilities and Environmental Setting Figure 4.1-3g

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## Segment B: Carmel Valley Road (Photographs 13 through 15)

Segment B, the underground portion of the Proposed Project, runs 2.84 miles along Carmel Valley Road, a curving arterial street in a low density residential area of Black Mountain Ranch and Torrey Highlands.

At Black Mountain Ranch Park, a community park with sports fields, located northeast of Black Mountain Road (Photographs 13 and 14), the Proposed Project route turns southwest to follow Carmel Valley Road, a tree lined arterial and collector street In this area, the Proposed Project route crosses Camino Del Sur and a limited number of local roadways. Additionally, the route passes near the Torrey Del Mar Neighborhood Park and the Kids Bay Learning Center, a private pre-school off Carmel Valley Road. This Proposed Project segment ends near Via Abertura where the route again changes direction and heads directly south. Photograph 15, taken from Carmel Valley Road, shows an existing steel lattice transmission tower on the left side of the road, beyond roadside vegetation and conductors crossing overhead.

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15. Carmel Valley Road near Collins Ranch Place looking west (Segment B-C Junction) \*\*



16. Santa Fe Canyon near Via Canyon Drive looking west (Segment C)

Refer to Figure 4.1-2 for photograph viewpoint locations \*\*Simulation View. Photograph taken by Burns McDonnell.

Sycamore to Peñasquitos 230 kV Transmission Line Project Photographs of Existing Facilities and Environmental Setting Figure 4.1-3h

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## Segment C: Carmel Valley Road to Peñasquitos Junction (Photographs 15 through 18)

Segment C follows existing overhead electric lines supported by two sets of structures that are situated almost entirely within the undeveloped rolling brush covered hills north of Los Peñasquitos Canyon. This approximately 2.19-mile-long segment crosses open sections of McGonigle and Deer Canyons, Del Mar Mesa Preserve, and passes near residential areas in the communities of Torrey Highlands and Del Mar Mesa. It also crosses SR-56; however, it does not cross any other public roads.

At the junction of Sections B and C, on Carmel Valley Road, the Proposed Project route goes from an underground position back to an overhead position and heads south, again following existing overhead power and transmission lines. In Photograph 16, structures from each of these lines appear against the sky as they pass near houses along Torrey Santa Fe Road and Santa Fe Canyon. Photograph 17 is a trail view taken approximately 500 feet from Santa Fe Canyon; the trail leading south into Los Peñasquitos Canyon Preserve is visible near the center of the view, roughly following the Proposed Project route as it proceeds toward Deer Canyon along the hills. Near Park Village Road and Celome Way (Photograph 18), the Proposed Project route turns southwest, continuing as Segment D. Known as Peñasquitos Junction, this location is where several existing power lines (TL 13804, TL 6906, and TL 675) turn from a north/south alignment and travel west into the Peñasquitos Substation.

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17. Trail to Peñasquitos Canyon near Santa Fe Canyon looking south (Segment C)



18. Park Village Road near Celome Way looking northwest (Segment C-D Junction) \*

Refer to Figure 4.1-2 for photograph viewpoint locations \*Simulation View Sycamor

#### Segment D: Peñasquitos Junction to Peñasquitos Substation (Photographs 18 through 24)

Segment D is approximately 3.34 miles long and follows existing overhead electric lines that are supported by two sets of structures along the north rim of Los Peñasquitos Canyon and passes within 150 feet of some residences located in the communities of Carmel Valley and Torrey Highlands. Vegetation in this area is sparse, except where residential landscaping occurs. Compared with other areas along the Proposed Project route, within this segment views toward the Proposed Project are more open and existing structures can be seen against the sky from as far away as the south side of the canyon, which is over 0.5 mile away.

The Proposed Project route heads southwest along the north edge of Los Peñasquitos Canyon on undeveloped land passing near residential developments that are currently under construction and generally not accessible to the public. Los Peñasquitos Canyon Trail is located approximately 0.25 mile to the south.

Several residential areas are located near the northern edge of Los Peñasquitos Canyon within the community of Carmel Valley, and a limited number of residences lie within three hundred feet of the Proposed Project route. In these locations, several trails lead down into Los Peñasquitos Canyon Preserve. Photograph 19 is a view of the Proposed Project route from a trail near Briarlake Woods Drive; Los Peñasquitos Canyon lies to the right, out of the view. From this location, houses and residential landscaping are visible on the left. In Photograph 20, taken from a nearby park located approximately 1,000 feet from the Proposed Project, residences can be seen on the left, while on the right, both an existing wood H-frame and steel lattice tower are visible against the sky. The distant south rim of Los Peñasquitos Canyon is visible beyond.

Within this part of Segment D, multi-use trails of Los Peñasquitos Canyon Preserve lie approximately 700 feet south of the Proposed Project route. Photograph 21, a view from Los Peñasquitos Canyon Trail on the north side of Peñasquitos Creek, demonstrates that beyond the valley floor, the walls of the canyon rise steeply, and existing overhead transmission and power line structures as well as several houses are visible against the sky at the rim of the canyon. In many other locations along this trail, topography and riparian vegetation screen views of structures along the Proposed Project route.

Views of the Proposed Project route are available from the south side of Los Peñasquitos Canyon in the community of Mira Mesa. Photograph 22 is a view from this area showing that, although houses built along the opposite rim are quite visible, existing overhead transmission and power line structures are not especially discernible at this distance. In the community of Torrey Hills, near the terminus of the Proposed Project, a limited number of residences have close-range views of the overhead existing transmission and power line structures on the Proposed Project route (Photograph 23). The Proposed Project alignment crosses a small commercial area, and then terminates at Peñasquitos Substation, located near Carmel Mountain Road and East Ocean Air Drive, in the community of Torrey Hills. Photograph 24 shows the substation and several existing overhead transmission and power lines from a public park located across Carmel Mountain Road.



19. Trail to Peñasquitos Canyon near Briarlake Woods Drive looking northeast (Segment D) \*



20. Park near Carmel Mountian Road at Carmel County Road looking southeast (Segment D)

Refer to Figure 4.1-2 for photograph viewpoint locations \*Simulation View Sycamore

Sycamore to Peñasquitos 230 kV Transmission Line Project Photographs of Existing Facilities and Environmental Setting Figure 4.1-3j



21. Los Peñasquitos Canyon Trail North looking west (Segment D) \*



22. Juniper Park Lane near Sorrento Valley Boulevard looking north (Segment D)

Refer to Figure 4.1-2 for photograph viewpoint locations \*Simulation View

Sycamore to Peñasquitos 230 kV Transmission Line Project Photographs of Existing Facilities and Environmental Setting Figure 4.1-3k



23. Manorgate Drive at Laurelcrest Drive looking southeast (Segment D)



24. Park near Carmel Mountain Road at Senda Luna Llena looking southeast (Segment D) Refer to Figure 4.1-2 for photograph viewpoint locations

## 4.1.3.4 <u>Potentially Affected Viewers</u>

Accepted visual assessment methods, including those adopted by FHWA and other federal agencies, establish estimated sensitivity levels as a measure of likely public concern for changes to scenic quality. Viewer sensitivity, one of the criteria for evaluating visual impact significance, can be estimated into high, moderate, and low categories. Factors considered in assigning a sensitivity level include viewer activity, view duration, viewing distance, adjacent land use, and special management or planning designation. According to the DOT *Visual Impact Assessment for Highway Projects*, research on the subject suggests that certain activities tend to heighten viewer awareness of visual and scenic resources, while others tend to be distracting. The primary potentially affected viewer groups within the Proposed Project area are described briefly below. It should be noted that these viewers already experience the presence of existing transmission and power line facilities including substations, wood H-frames, tubular steel poles, steel lattice towers, and overhead conductors. It should also be noted that viewer sensitivity can differ in level from one viewer to another, since each viewer notices and values different attributes of the visual environment differently.

## Motorists

Motorists, the largest viewer group that could be affected by the Proposed Project, include people traveling on I-15, SR-56, and local/regional streets including Pomerado Road, Scripps-Poway Parkway, Poway Road, Carmel Valley Road and Carmel Mountain Road. Local travelers, who are familiar with the visual setting, are the primary motorists in the Proposed Project area, although other motorists may include those using the highways on a less regular basis. Affected motorists' views are generally brief in duration, typically lasting less than a few minutes. Viewer sensitivity is considered low to moderate.

## Recreationalists

Recreationalists, another potentially affected viewer group, include hikers, equestrians, and cyclists using trails, Los Peñasquitos Canyon Preserve, Black Mountain Open Space Park and Del Mar Mesa Preserve, as well as visitors to local parks such as Spring Canyon Park, Hilltop Community Park, Black Mountain Ranch Community Park, Cypress Canyon Neighborhood Park and Sage Canyon Park. View duration for this group could range from several minutes to several hours, and viewer sensitivity is considered moderate to high.

## Residents

Residents within the Proposed Project area comprise the third viewer group. As described in Section 4.1.3.3, along parts of the Proposed Project route, residential properties border or lie in close proximity to the route. Residential views tend to be long in duration; sensitivity to visual change for this viewer group is considered moderate to high.

## 4.1.3.5 <u>Regulatory Background</u>

The Proposed Project route is primarily located within the City of San Diego, with a limited portion located in the City of Poway. Federal lands through which the Proposed Project passes

include the San Diego Wildlife Refuge and MCAS Miramar. In addition, portions of the Proposed Project pass through the California Coastal Zone.

The Proposed Project involves modifications within a developed utility corridor where there are currently two sets of overhead electric structures and there would continue to be two sets of structures. Additionally, where the Proposed Project does not follow an existing transmission or power line ROW, it is located underground in franchise position in Carmel Valley Road. Due to the presence of these existing transmission and power line facilities and, because the proposed visual change would only be incremental, the Proposed Project would conform to the pertinent visual policies outlined below.

#### Federal

#### U.S. Marine Corps

A limited portion of the Proposed Project including the Sycamore Canyon Substation and approximately 0.25 mile of route are located in the MCAS Miramar. As well as identifying sensitive natural resources (MCAS Miramar, 2000), the U.S. Marine Corps prepared a cultural resources management plan addressing sensitive historic and cultural resources for the Air Station (MCAS Miramar, 2011). These plans do not contain specific policies regarding aesthetics which apply to the Proposed Project.

#### U.S. Fish and Wildlife Service

The San Diego National Wildlife Refuge is comprised of approximately 11,100 acres in discontinuous parcels around the San Diego area, primarily in the center of the county. Approximately 650 feet of the Proposed Project route near Preserve Way in Del Mar Mesa passes through a 19 acre portion of this refuge. A Comprehensive Conservation Plan (CCP) has been developed for the South San Diego Bay and Sweetwater Marsh units located approximately 20 miles south of the Proposed Project area. The USFWS is currently finalizing the administrative draft CCP/Environmental Assessment for the Vernal Pools Stewardship project area near Del Mar Mesa through which the Proposed Project passes (USFWS, 2013). At this time, neither document contains specific policies regarding aesthetics that pertain to the Proposed Project.

#### State

#### California Department of Transportation: Scenic Highway Program

California's Scenic Highway Program was created by the Legislature in 1963. Its purpose is to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. The State Scenic Highway System includes highways that are either eligible for designation as scenic highways or have been designated as such. The status of a state scenic highway changes from "eligible" to "officially designated" when the local jurisdiction adopts a scenic corridor protection program, applies to Caltrans for scenic highway approval, and receives from Caltrans the designation. 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 Designated State Scenic Highway, SR-75 is over 15 miles south of the Proposed Project and the Proposed Project is not visible from this road. The nearest Eligible State Scenic Highway is I-5, approximately 0.75 mile west of the Project's termination point; however, due to the viewing distance and because intervening topography and existing structures largely screen the Proposed Project route from this roadway, the Proposed Project would not affect views.

## California Coastal Act

The 1976 Coastal Act establishes the California Coastal Commission's (CCC's) jurisdiction over the state's coastal zone, generally defined as the land and water area "extending inland 1,000 yards from the mean high tide line of the sea." The Coastal Act provides for protection of coastal visual resources.

A portion of the western end of the Proposed Project passes through the Coastal Zone. Coastal Zone policies are incorporated within the City of San Diego Community Plans, and the Coastal Commission certifies each Community Plan which has areas in the coastal zone. Community Plan areas within the Coastal Zone through which the Proposed Project passes include Torrey Hills, Carmel Valley, Del Mar Mesa, and Pacific Highlands Ranch. The Proposed Project is located within Coastal Zone areas in Pacific Highland Ranch, Del Mar Mesa, and Carmel Valley Community Plan areas. None of the three Community Plans include specific policies regarding aesthetics that pertain to the Proposed Project.

## Local

## CPUC General Order 131-D

CPUC General Order 131-D states that local governments have no discretionary authority over construction of utility power line or substation projects. However, as part of the environmental review process, SDG&E has considered relevant land use plans and policies that pertain to visual quality for the jurisdictions crossed by the Proposed Project route. As noted below at the end of each policy discussion, the construction and operation of this Proposed Project does not conflict with any environmental plans, policies, or regulations pertinent to aesthetics.

## San Diego County General Plan

Chapter 5, the Conservation and Open Space Elements of the *San Diego County General Plan* (San Diego, 2011) contains provisions regarding scenic roads in the county scenic highways. The county does not designate scenic roads within the City of San Diego (San Diego County, 2011, Figure C-5). Scripps Poway Parkway, 2.7 miles east of the Proposed Project in the unincorporated county, is the nearest county scenic highway; however, the Proposed Project is not visible from this segment of the road.

## Los Peñasquitos Canyon Preserve Master Plan

The Proposed Project crosses and lies near Los Peñasquitos Canyon Preserve, an approximately 4,000 acre area that encompasses Los Peñasquitos and Lopez Canyons. The preserve is jointly managed by the City and County of San Diego. The *Los Peñasquitos Canyon Preserve Master Plan* (San Diego, 1988) acknowledges the SDG&E utility easement (the Proposed Project route) located within the preserve and recognizes that some of the access roads for the Proposed Project route double as hiking trails (p. 51). The management plan contains general provisions about

protecting the scenic resources particularly limiting development visible from the area. However, the plan does not contain specific provisions regarding aesthetics that pertain to the Proposed Project.

#### City of San Diego General Plan

The Mobility, Urban Design, Public Facilities, Services and Safety, and Recreation Elements of *San Diego General Plan* (San Diego, 2011) contain provisions regarding aesthetics in the Proposed Project areas.

#### Land Use Element

The Land Use Element delineates Community Plan areas within the City. It also discusses the relationship between the Coastal Zone and Community Plans. However, it does not contain policies regarding aesthetics that apply to the Proposed Project.

#### Mobility Element

The Mobility Element recommends designating scenic routes within the City; however, no scenic routes are identified. Additionally, it recommends placing utility lines underground, to the extent practicable (p. ME-25). Where the Proposed Project does not follow an existing transmission ROW, it is located underground within franchise in Carmel Valley Road.

#### Urban Design Element

The Urban Design Element recommends minimizing the visual impact of utilities and undergrounding overhead utilities. Where the Proposed Project does not follow an existing transmission ROW, it is located underground within franchise in Carmel Valley Road.

UD-A.16. Minimize the visual and functional impact of utility systems and equipment on streets, sidewalks, and the public realm.

a. Convert overhead utility wires and poles, and overhead structures such as those associated with supplying electric, communication, community antenna television, or similar service to underground. (p. UD-15)

#### Public Facilities, Services and Safety Element

The Public Facilities, Services and Safety Element recommends undergrounding utility lines. Accordingly, where the Proposed Project does not follow an existing transmission ROW, it is located underground within franchise in Carmel Valley Road. The Public Facilities, Services and Safety Element also recommends incorporating public art into utility facilities.

In 2002, San Diego adopted a policy for the undergrounding of overhead utility lines to protect public health, safety, and general welfare. (p. PF-48)

PF-M.4 Cooperatively plan for and design new or expanded public utilities and associated facilities (e.g., telecommunications infrastructure, planned energy generation facilities, gas compressor stations, gas transmission lines, electrical substations and other large scale gas and electrical facilities) to maximize environmental and community benefits.

a. Incorporate public art with public utility facilities, especially in urban areas. (p. PF-50)

#### Recreation Element

The Recreation Element has general provisions regarding aesthetics in the Proposed Project area including preserving open space view corridors to the water and significant topographic features; however, the Proposed Project would not affect view corridors to the water nor would it substantially affect significant topographic features.

#### City of San Diego Community Plans

The *City of San Diego General Plan* indicates that the city is divided into 50 Community Plan areas each with its own adopted community plan. In some cases, these are precise or specific plans. The Proposed Project passes through ten Community Plan areas including:

- Rancho Encantada,
- Scripps Miramar Ranch,
- Miramar Ranch North,
- Rancho Peñasquitos,
- Black Mountain Ranch,
- Torrey Highlands,
- Pacific Highlands Ranch,
- Del Mar Mesa,
- Carmel Valley, and
- Torrey Hills.

Policies regarding aesthetics contained in these plans focus on designing aesthetically pleasing streets and residential areas and preserving open space and views. Several of the plans also recommend undergrounding utilities; however, these generally refer to distribution lines and lines below 69 kV. Some of the plans acknowledge the existing Proposed Project route and recommend siting recreational trails within the SDG&E easement.

#### North City Future Urbanizing Area Framework Plan

The *North City Future Urbanizing Area Framework Plan* (2006) pertains to a 12,000 acre area on the northern edge of San Diego which was largely undeveloped in 1992, when the plan was first adopted. The plan encompasses the following subareas: Black Mountain Ranch, Torrey Highlands, Del Mar Mesa, Pacific Highlands Ranch, and Fairbanks Country Club.

The plan mentions preserving scenic value of natural features and broadly identifies areas of high scenic values. However it does not have specific aesthetic policies that apply to the Proposed Project.
#### City of San Diego Multiple Species Conservation Program (MSCP)

The *Multiple Species Conservation Program* (San Diego, 1998) is a comprehensive habitat conservation planning program that is directed to preserve native vegetation communities and address multiple species habitat needs in a 900-square-mile area in southwestern San Diego County including large portions of the City of San Diego. The plan does not contain specific policies regarding aesthetics.

#### City of Poway Comprehensive Plan

Approximately 0.4 mile of the Proposed Project route passes through the City of Poway. The Natural Resources Element of the *Poway Comprehensive Plan* (City of Poway, 1991) contains general policies regarding aesthetics in the Proposed Project area, in particular preserving natural and scenic resources, scenic vistas, and views toward mountains ridgelines.

#### City of Poway Transportation Master Element

The *Transportation Master Element* (City of Poway, 2010) designates several roadways in the City of Poway as scenic. The nearest of these, Midland Road, is 2.4 miles from the Proposed Project route; however, the Proposed Project would not be visible from this roadway.

#### 4.1.4 Potential Impacts and Significance Criteria

#### 4.1.4.1 Significance Criteria

The significance criteria for assessing the impacts to aesthetics come from the CEQA Environmental Checklist. According to the CEQA checklist, a project will cause a potentially significant impact if it will:

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

Factors considered in applying these criteria to determine significance include the extent of Proposed Project visibility from residential areas, public open space and designated scenic routes; the extent of change in the landscape's composition and character; the degree to which the various Proposed Project elements would contrast with or be integrated into the existing landscape; and the number and estimated sensitivity of viewers.

# 4.1.4.2 <u>Question 1a – Would the project have a substantial adverse effect on a scenic vista?</u>

#### **Construction and Operation & Maintenance – Less Than Significant Impact**

The Proposed Project area includes existing overhead transmission and power lines and substation facilities that are visible within the public viewshed. These existing facilities constitute the baseline from which impacts are measured. For purposes of this evaluation, a scenic vista is defined as a distant public view along or through an opening or corridor that is recognized and valued for its scenic quality.

There are no officially designated scenic vistas in the Proposed Project area. A scenic pull-out situated along Calle Cristobal on the south rim of Los Peñasquitos Canyon is located approximately one mile from the Proposed Project. Due to the viewing distance, the existing overhead transmission and power line facilities located within the Proposed Project corridor are barely evident from this pull-out; therefore the Proposed Project would not substantially affect the existing views seen from this location. In addition, within Los Peñasquitos Canyon Preserve, the open canyon landscape and distant ridgelines are visible from some locations along recreation trails. As described in detail below under CEQA question "C" and demonstrated in the Figure 4.1-10 and 4.1-11 visual simulations, the Proposed Project would not substantially alter the existing landscape or visual character experienced from the trail system. Impacts are anticipated to be less than significant.

#### 4.1.4.3 <u>Question 1b – Would the project substantially damage scenic resources,</u> <u>including, but not limited to, trees, rock outcroppings, and historic buildings</u> <u>within a state scenic highway?</u>

#### **Construction and Operation & Maintenance – No Impact**

There are no Designated State Scenic Highways within the Proposed Project viewshed. SR-75, the nearest Designated State Scenic Highway, is over 15 miles from the Proposed Project and the Proposed Project is not visible from this road. The nearest Eligible State Scenic Highway, Interstate 5 (I-5), lies approximately 0.75 mile west of the Proposed Project's termination point; however, because intervening topography and existing structures largely screen views of the Proposed Project route from this roadway, the Proposed Project would not affect views. Additionally, the Proposed Project does not lie within the viewshed of any county or city scenic routes.

Therefore, the Proposed Project would not substantially damage scenic resources within a State Scenic Highway, and no impacts would result.

# 4.1.4.4 <u>Question 1c – Would the project substantially degrade the existing visual</u> character or quality of the site and its surroundings?

#### **Construction – Less than Significant Impact**

Construction-related visual impacts associated with the Proposed Project would not substantially degrade the existing visual character or quality of the site and its surroundings. Construction-

related visual impacts would result from the presence of equipment, materials, and work crews along the Proposed Project alignment. Although these effects are relatively short-term, they could be most noticeable to residents who live in close proximity to the Proposed Project and motorists traveling along adjacent roadways. Construction activity may also be noticeable from nearby parks and open space areas. While construction of the entire Proposed Project is expected to take place over approximately twelve months, construction at specific locations along the route would take considerably less time. To varying degrees, construction activities could be noticeable to local residents, motorists, and recreational users. However, because of their short-term and temporary nature, impacts would not substantially degrade the existing visual character or quality of the site and its surroundings.

In addition, the Stonebridge and Torrey Santa Fe Staging Yards could be visible from some publicly accessible locations. These areas will have opaque mesh, or something comparable, installed along the fence that would partially screen views of construction equipment and material from public vantage points such as roads and residences.

When Proposed Project construction has been completed, all temporarily disturbed terrain will be restored, to the extent practical, to approximate preconstruction conditions while maintaining adequately safe work areas for operation and maintenance activities, as needed. Re-vegetation will be used, where appropriate (re-vegetation in certain areas is not possible due to vegetation management requirements related to fire safety) to re-establish a natural appearing landscape and reduce potential visual contrast between disturbed areas and the surrounding landscape. In addition, all construction materials and debris will be removed from the Proposed Project area and recycled or properly disposed of off-site.

With implementation of these standard operating procedures and because of the temporary nature of construction activities, construction-related visual impacts would be less than significant.

#### **Operation & Maintenance – Less than Significant Impact**

The Proposed Project area includes existing electric substation, distribution, power and transmission facilities that are seen within the public viewshed. The baseline from which impacts are measured includes these existing facilities. Existing access roads and pads are also seen within this viewshed. The Proposed Project involves improvements along an approximately 16.7-mile route between the existing SDG&E Sycamore Canyon and Peñasquitos Substations and includes a new 230 kV transmission line and the consolidation of two existing 69 kV power lines onto new double-circuit, steel structures that would replace existing wood H-frame structures.

Overall, the Proposed Project would replace a total of approximately 68 existing structures with approximately 62 new dull galvanized tubular steel poles; it also includes the addition and relocation of several sets of conductor within the ROW. Although new conductor may be larger than that of the existing overhead line, the change would be relatively minor and not particularly noticeable to the public. In addition, two new cable poles would be installed, one at each end of the underground Segment B. Minor modifications would be made to the existing Sycamore Canyon and Peñasquitos Substations. Because the substation modifications involve only minor changes within existing fencelines, and because alterations would be seen within the context of these existing substation facilities, the change would be an incremental visual effect that would

not be noticeable to the public. The Proposed Project's effect on existing vegetation would be minimal, consisting primarily of some minor vegetation trimming. Additionally, the Proposed Project would not obstruct views toward distant ridgelines and mountains.

The overall Proposed Project is divided into four segments based upon the type and location of proposed facilities. A set of ten before and after visual simulations depict the Proposed Project's appearance as seen from KOPs within the four segments along the transmission line route. As described below, the KOPs are a subset of the photographs discussed in Section 4.1.3.3, and were chosen to portray visible project changes as seen from sensitive locations and/or by the greatest number of viewers. These KOPs were chosen to represent key representative public viewpoints, as further explained in Section 4.1.2, above.

The location of each KOP is depicted on Figure 4.1-2. Table 4.1-2, Summary of Simulation Views (KOPs), presents an overview of the visual simulations in terms of the location of each view, the visual changes depicted, and approximate viewing distance to the nearest visible Proposed Project element. As described in the following subsections and as shown on Figures 4.1-4 through 4.1-13, the Proposed Project represents an incremental visual change within a visual setting where existing transmission structures of similar scale and appearance are visible. Therefore, the Proposed Project would not substantially alter the existing landscape setting. As described in detail in the following text and demonstrated in the set of ten before and after visual simulations of the utility line route, the overall change resulting from the Proposed Project would not substantially degrade the existing visual character or quality of the landscape setting. As a result, impacts would be less than significant.

Viewpoint (VP) Location and Number (Figure Number <sup>1</sup> )	Visible Proposed Project Change	Approx. Distance to nearest Proposed Project element (feet)			
Segment A					
Fortino Point in the community of Rancho Encantada – VP 3 (Figure 4.1-4)	New tubular steel pole replaces a wood H-frame structure.	600 feet			
Pomerado Road in the community of Scripps Miramar Ranch – VP 4 (Figure 4.1-5)	New tubular steel pole replaces a wood H-frame structure.	1,200 feet			
Scripps-Poway Parkway in the community of Miramar Ranch North – VP 6 (Figure 4.1-6)	New tubular steel poles replace three wood H-frame structures.	750 feet			
State Route 56 in the community of Rancho Peñasquitos – VP 9 (Figure 4.1-7)	Two new tubular steel poles installed and removal of one wood H-frame. Two new 138 kV tubular steel poles would also replace two existing poles adjacent to the substation.	1,200 feet			

 Table 4.1-2: Summary of Simulation Views (KOPs)

Viewpoint (VP) Location and Number (Figure Number <sup>1</sup> )	Visible Proposed Project Change	Approx. Distance to nearest Proposed Project element (feet)			
Oviedo Street in the community of Rancho Peñasquitos – VP 12 (Figure 4.1-8)	New steel tubular pole replaces two wood H-frame structures.	1,500 feet			
	Segment B				
Black Mountain Ranch Community Park looking toward east cable pole– VP 14 (Figure 4.1-9)	New cable pole structures located	600 feet			
Carmel Valley Road looking toward west cable pole – VP 15 (Figure 4.1-10)	segment.	600 feet			
Segment C					
Park Village Road in the community of Rancho Peñasquitos – VP 18 (Figure 4.1-11)	New tubular steel pole replaces a steel lattice tower.	500 feet			
Segment D					
Trail to Peñasquitos Canyon in the community of Carmel Valley – VP 19 (Figure 4.1-12)	Two new tubular steel poles replace wood H-frame structures. Reconfigured conductors on existing towers.	500 feet			
Los Peñasquitos Canyon Trail in Los Peñasquitos Canyon Preserve – VP 21 (Figure 4.1-13)	Four new tubular steel poles replace wood H-frame structures. Reconfigured conductors on existing towers.	2,000 feet			
Notes: <sup>1</sup> Refer to Figure 4.1-2 for simulation viewpoint log	cations				

Table 4.1-2 (cont.):	Summary	of Visual	Simulation	Views
			01111011011	

The following discussion includes description and evaluation of the Proposed Project's potential visual effects on key public views by Project segment, as represented by the visual simulations. Potential changes in visual character to each segment are also discussed.

### Segment A

Segment A, the longest segment of the Proposed Project, includes the installation of approximately 8.31 miles of new 230 kV conductor on 38 new, double-circuit and two new, single circuit 230 kV tubular steel poles situated between Sycamore Canyon Substation and Carmel Valley Road. Modifications include removal of 42 existing wood H-frame structures, two tubular steel poles, one double circuit cable pole and two single circuit wood mono poles, as well as relocation of an existing 138 kV line to the second position on the new poles. One small section of 138 kV underground would be installed to connect the existing 138 kV power line to the Sycamore Canyon Substation. As documented in Section 4.1.3.3, the proposed changes

would be visible from several locations, including nearby residential areas and arterial roadways, as well as from a limited number of public recreation areas.

Figure 4.1-4, a view looking northeast from Fortino Point, approximately 900 feet north of Stonebridge Parkway, represents nearby residential views in this area of Rancho Encantada. Street trees frame the view of the road from this location, and a two-story residence and street lights are visible in the foreground. Overhead power lines and two transmission structures located beyond the house on the hillside can be seen against the sky. The Figure 4.1-4 visual simulation shows the removal of the existing wood H-frame structure and replacement with a new tubular steel pole. The new replacement pole is taller than the existing wood structure; however the form of the new single pole structure is simpler than that of the wood H-frame causing it to appear more streamlined against the sky. Additionally the color of the steel pole is lighter and slightly less noticeable than the darker wood when seen against the sky. Comparison of the Figure 4.1-4 before and after images indicates that the visual change associated with the Proposed Project would not have a substantial effect on the existing character or composition of the landscape seen within this residential area.

Figure 4.1-5, a photograph from Pomerado Road, is representative of motorists' views traveling northbound near Stonebridge Parkway. On the right, the steeply sloping landform allows for views toward distant hills and peaks, visible beyond the buildings located on a mesa closer to this viewpoint. Roadside vegetation on the left side largely screens views of the Proposed Project route from most locations along Pomerado Road. However, from this vantage point, overhead conductors and two structures are visible near the left of a taller lattice transmission tower and a wood H-frame structure located along the Proposed Project route. Both structures are seen against a combination of sky and hillside backdrop. The Figure 4.1-5 visual simulation shows a new tubular steel pole that is taller than the existing wood H-frame structure it replaces. While the increased height could result in the new pole being slightly more noticeable, its color is more similar to the color of the steel lattice tower and the sky, which reduces the visual contrast between the two structures and the sky. The simulation also shows new colored marker balls on conductors crossing over the roadway; however given their size and the viewing distance, the new elements are barely noticeable. The visual simulation demonstrates that the resulting change to the existing visual character and landscape composition is relatively minor, and that the effect would not substantially alter the roadway view.

The Figure 4.1-6 photograph, taken from Scripps-Poway Parkway, represents eastbound motorists' views and is also similar to views from nearby Spring Canyon Park. Noticeable vertical utilities along the roadside include traffic signals, street lights, and transmission and power line structures that support parallel overhead lines. On the right, dense vegetation screens views toward the south. On the left side of the parkway, a tubular steel pole and a wood H-frame structure appear prominently against the sky in the foreground, although landscaping screens the structures' lower portions. Farther away, mature vegetation effectively screens the lower parts of additional power structures as the line of poles recedes out of the view. The Figure 4.1-6 visual simulation of the Proposed Project shows new tubular steel poles replacing the existing wood H-frame structures. While the replacement structures are taller than the wood H-frame structures, the new poles are more similar in appearance to the existing poles situated in the utility right-of-way along the roadside. This consistency in form, color, and general appearance among the poles results in the replacement structures being less noticeable. Given this and the presence of

numerous other vertical built elements in the existing visual environment, the Proposed Project is a relatively minor, incremental visual change. Comparison of the Figure 4.1-6 existing view and simulation demonstrates that, given the presence of existing transmission and other vertical structures, the Proposed Project would not substantially alter the existing landscape character as seen from this area.

Figure 4.1-7 presents a view from SR-56, looking southeast, near the location where the Proposed Project crosses Rancho Peñasquitos Boulevard. In general, roadside vegetation partially screens more distant views from this freeway corridor; however, from this location multiple structures are visible against the sky on the ridgeline, beyond Rancho Peñasquitos Boulevard, including a wood H-frame structure that is part of the Proposed Project. In addition, small portions of Chicarita Substation and several tap poles are barely discernible on the left; however, these facilities are largely screened by vegetation. The Figure 4.1-7 visual simulation of the Proposed Project shows one wood H-frame structure replaced with two new 230 kV tubular steel poles, visible against the sky on the right. In addition two new tubular steel poles replace two existing poles adjacent to the substation; however, these new structures are barely noticeable due to screening provided by dense vegetation. Near the far right, a new marker ball installed on overhead conductor would also be visible, but barely noticeable. Comparison of the before and after images shows that, despite the increased number of structures, the Proposed Project would result in an incremental visual change that would not substantially alter the existing landscape seen at this location, and it therefore would not degrade the visual character of views from this freeway.

Figure 4.1-8, a view from Oviedo Street near the intersection of Rasmussen Way, represents views from a limited number of nearby residences as well as an unobstructed but brief duration view from this local road. In the foreground on the right, houses that are set back from the Proposed Project route lie near the top of a hillside with dense vegetation separating them from the downhill slope and utility corridor. At the left edge of this view, the rear yard of another residence is visible, and multiple sets of overhead conductors can be seen against the sky. On the right, the upper portion of a steel lattice transmission tower is also visible beyond the hillside shrubs, and two wood H-frame structures appear on the ridgeline, near the center of the view. The Figure 4.1-8 visual simulation shows the introduction of one new tubular steel pole on the ridgeline. This new pole replaces two existing wood H-frame structures that are currently visible on the ridgeline. The new structure would be visible against the sky; however, given the removal of the existing wood H-frame structures, and in light of the brief duration of the view, the change would be incremental and therefore would not substantially affect this view. In addition, the new structure could be seen from the rear of a limited number of residential properties; however, due to the presence of existing transmission structures and overhead lines and because it is expected that the existing vegetation situated at the top of the slope would provide partial screening for residential views, the effect would not substantially alter the existing landscape character of residential views at this location.

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Existing View from Fortino Point near Wild Meadow Place looking northeast (Segment A - VP 3)



Visual Simulation of Proposed Project

Note: Refer to Figure 4.1-2 for photograph viewpoint location. Exact pole heights may vary depending upon field conditions.

# Sycamore to Peñasquitos 230 kV Transmission Line Project Existing View and Visual Simulation from Fortino Point Figure 4.1-4



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Existing View Pomerado Road near Stonebridge Parkway looking north (Segment A - VP 4)



Visual Simulation of Proposed Project

Note: Refer to Figure 4.1-2 for photograph viewpoint location. Exact pole heights may vary depending upon field conditions.

Sycamore to Peñasquitos 230 kV Transmission Line Project Existing View and Visual Simulation from Pomerado Road Figure 4.1-5



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Existing View from Scripps-Poway Parkway at Scripps Creek Drive looking east (Segment A - VP 6)



Visual Simulation of Proposed Project

Note: Refer to Figure 4.1-2 for photograph viewpoint location. Exact pole heights may vary depending upon field conditions.

Sycamore to Peñasquitos 230 kV Transmission Line Project Existing View and Visual Simulation from Scripps-Poway Parkway Figure 4.1-6



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Existing View from State Route 56 eastbound near Rancho Peñasquitos Boulevard looking east (Segment A - VP 9)



Visual Simulation of Proposed Project

Note: Refer to Figure 4.1-2 for photograph viewpoint location. Exact pole heights may vary depending upon field conditions.

Sycamore to Peñasquitos 230 kV Transmission Line Project Existing View and Visual Simulation from State Route 56 Figure 4.1-7



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Existing View from Oviedo Street near Rasmussen Way looking northwest (Segment A - VP 12)



Visual Simulation of Proposed Project

Note: Refer to Figure 4.1-2 for photograph viewpoint location. Exact pole heights may vary depending upon field conditions.

Sycamore to Peñasquitos 230 kV Transmission Line Project Existing View and Visual Simulation from Oviedo Street Figure 4.1-8



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#### Segment B

Segment B involves the installation of approximately 2.84 miles of underground line, and construction of a new 230 kV tubular steel cable pole at each end of this segment. The new cable poles would be the only visible Proposed Project elements within Segment B and would be visible to a limited number of viewers primarily along Carmel Valley Road. Both cable pole structures would be enclosed by 8-foot non-reflective galvanized steel chain-link fence. Section 4.1.3.3, includes a description of the visual setting within this area, including references to existing views toward the proposed cable pole locations (Photographs 13 through 15, Figures 4.1.3h and 4.1.3i). Visual simulations of the new east and west cable poles are shown in Figures 4.1-9 and 4.1-10 respectively.

Figure 4.1-9 is a before and after view of the project, as seen from the parking area within Black Mountain Ranch Community Park. The park facility, operated by the City of San Diego Recreation Department, includes sports field, paved parking areas with lighting, a rest room building, and landscaping. Two sets of existing transmission and power line structures, including steel lattice towers and wood H-frame structures support parallel transmission and power lines that traverse the park with a separate distribution line supported by wood poles running parallel. The transmission and power line structures are prominent built elements seen within the park landscape. A green colored water storage tank located south of both the Park and Carmel Valley Road is another prominent built element seen from the park. Visual change associated with the new east cable pole structure would be seen primarily from this park and its entry road. The new east cable pole would be an approximately 160-foot tall steel pole that would replace an existing wood H-frame structure located within the park. A new wood distribution pole would be added Additionally, new steel poles would replace existing wood H-frame near the cable pole. structures that are located south of the park. These structures are visible from the park. As shown in the simulation, the new poles are taller than existing structures; however the form of the new poles is simpler and the overall change in the landscape character is incremental. The final cable pole design may include landscaping that would partially screen the lower portion of the cable pole, as seen from some places within the park. Given the presence of existing transmission and power line structures at and near Black Mountain Ranch Community Park, the visual change would be incremental and the effect would not substantially alter the landscape character of the park. Incorporation of landscaping could partially screen the lower portion of the new pole, thus reducing the visual effect. The new structure would also be seen from a limited area along Carmel Valley Road. Given the new pole would replace an existing wood Hframe structure and because the view is brief in duration, the project would not substantially alter these roadway views.

The west cable structure would be an approximately 160-foot tall pole that would replace an existing steel lattice tower. The new pole and 8-foot non-reflective galvanized steel chain-link enclosure would be visible from Carmel Valley Road, and may also be seen from Via Abertura and nearby commercial and residential areas. Figure 4.1-10 shows an existing view and visual simulation of the west pole, as seen from Carmel Valley Road. The new structure would replace an existing steel lattice tower. Because the new cable pole is taller, it could be noticeable from the roadway; however roadway views would be brief in duration and given the presence of an existing steel lattice tower, the overall visual effect would not be substantial.

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Existing View from Black Mountian Ranch Park looking south (Segment B - VP 14)



Visual Simulation of Proposed East Cable Pole\*

Note: Refer to Figure 4.1-2 for photograph viewpoint location. Exact pole heights may vary depending upon field conditions.

\* Rendering by Burns McDonnell

Sycamore to Peñasquitos 230 kV Transmission Line Project Existing View and Visual Simulation of Proposed East Cable Pole Figure 4.1-9



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Existing View from Carmel Valley Road looking west (Segment B - VP 15)



Visual Simulation of Proposed West Cable Pole\*

Note: Refer to Figure 4.1-2 for photograph viewpoint location. Exact pole heights may vary depending upon field conditions. \* Rendering by Burns McDonnell

Sycamore to Peñasquitos 230 kV Transmission Line Project Existing View and Visual Simulation of Proposed West Cable Pole Figure 4.1-10



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#### Segment C

Segment C involves approximately 2.19 miles of new 230 kV conductor to be installed on existing double-circuit 230 kV steel structures between Carmel Valley Road and the Peñasquitos Junction, east of Park Village Road. The existing 230 kV lines would be reconductored and bundled on the east side of the existing structures. Additionally, one steel lattice tower would be replaced with a new tubular steel pole. Most of these minor modifications would not be noticeable to the casual observer. Furthermore, as documented in Section 4.1.3.3, the proposed changes would only be visible from limited residential areas, and from public recreation areas with limited public access.

Figure 4.1-11 shows a close-range view from a residential street in the community of Rancho Peñasquitos. Open scrub-covered hillsides and several residences along the ridgeline appear in the backdrop of this view; the intersection of Celome Way and Park Village Road with houses, mature landscaping, and street lights is seen in the foreground. Trailhead signage for Los Peñasquitos Canyon Del Mar Mesa trail is visible in the center-right beyond the rise in the road. Two power structures, including a steel lattice tower which is visible partially against the sky and a steel wood H-frame structure seen primarily against the hillside, are prominent features. Topography and landscaping partially screen the lower portions of these structures which are situated within largely open land beyond the residences.

The Figure 4.1-11 visual simulation of the Proposed Project shows a new tubular steel pole that replaces the existing steel lattice tower. Similar to the lattice tower, the upper portion of the new pole is silhouetted against the sky and the lower portion is visible against a landscape backdrop. The color of the existing utility structure resembles the gray steel color of the pole, and the form of the new tubular pole is not dissimilar to the wood H-frame structure to the left or the light pole standard and the palm tree trunk seen in the foreground. The Figure 4.1-9 existing view and corresponding simulation indicate that the visual change associated with the proposed replacement of a steel lattice tower with a new tubular steel pole would not substantially alter the existing character or composition of this residential landscape setting.

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Existing View from Park Village Road near Celome Way looking northwest (Segment C-D Junction - VP 18)



Visual Simulation of Proposed Project

Note: Refer to Figure 4.1-2 for photograph viewpoint location. Exact pole heights may vary depending upon field conditions.

Sycamore to Peñasquitos 230 kV Transmission Line Project Existing View and Visual Simulation from Park Village Road Figure 4.1-11



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#### Segment D

The proposed changes within Segment D involve installing approximately 3.34 miles of new 230 kV conductor on existing double-circuit 230 kV steel structures located within the right-ofway between the Peñasquitos Junction and Peñasquitos Substation. In addition, existing 69 kV power lines would be consolidated onto approximately 17 new 69 kV, double-circuit tubular steel poles that would replace approximately 15 existing 69 kV wood H-frame structures and five wood monopole structures, and two new tubular steel cable poles would replace two existing two wood cable poles located immediately outside of the existing Peñasquitos Substation. The proposed changes would be visible from public recreation areas as well as from nearby residential areas and a limited number of nearby local roadways. As documented in Section 4.1.3.3, views from many locations in this area are distant and landscape detail is hard to discern.

Figure 4.1-12 presents a view looking northeast along the Proposed Project route taken from a recreation trail located south of Briarlake Woods Drive and Heather Run Court. On the right in the background, the southern rim of Peñasquitos Canyon and more distant hills are visible beyond the hilly topography and brushy terrain of the north canyon rim. Rear residential yards located near the canyon rim are visible beyond a small hill in the immediate foreground on the left side of this view. Near the center, two overhead power lines that run parallel are visible; the lines on the left are supported by steel lattice transmission towers and the other is a 69 kV line supported by wood H-frame structures.

The Figure 4.1-12 visual simulation shows two new replacement tubular steel poles and the removal of existing wood H-frame structures. In addition, the left sides of the adjacent steel lattice towers have been changed to include a pair of bundled conductors with 'V' insulators. Although the new poles are taller than the existing wood H-frame structures, the form of the new single poles is simpler than that of the wood H-frame structures, and the color is similar to that of the adjacent steel towers and to that of the sky. In addition, because the replacement poles are located closer to the lattice towers, the overall width and footprint of the developed utility corridor would decrease, which could reduce its visual presence, as seen from some locations. While the new conductors are slightly more noticeable than the single conductor, it is expected that this change would not be noticeable to the casual observer. A comparison of Figure 4.1-12 before and after images demonstrates that the Proposed Project could represent a noticeable visual change as seen from this close-range vantage point; however, as described above, the effect would be incremental and would not substantially alter or degrade the overall existing visual character or landscape composition experienced in the area.

The Figure 4.1-13 photograph, taken from Los Peñasquitos Canyon Preserve, is a typical view experienced from the trail system within the western part of the Preserve. From this area, a relatively flat expanse of valley floor dominates the foreground, and the crushed rock recreation trail that is visible in the immediate foreground can also be seen in the distance as it climbs the steep north side of Los Peñasquitos Canyon. With the exception of dense riparian vegetation seen at the left edge of this photograph, the area's vegetation pattern consists primarily of intermittent low scrub that allows for open views toward the Proposed Project route from many trail locations. Along ridgelines, residences built near the canyon rim as well as a variety of utility structures including steel lattice towers and wood H-frame structures are visible against the sky.

The Figure 4.1-13 visual simulation shows new tubular steel poles that would replace wood H-frame structures. A new set of marker balls to be installed on existing overhead line would be visible, but barely noticeable against the sky. The steel replacement poles would be taller than the original wood H-frame structures; however, they would be similar or lower in height compared with the existing towers and the conductor span catenaries (conductor sag between structures) would now mimic those on the existing 230 kV towers more closely. In contrast to the original wood H-frame structures, the form of the new single pole structures would be simpler and more streamlined, particularly when seen against the sky. In terms of color, the new steel poles are similar to that of the nearby existing steel towers and to that of the sky. A comparison of the Figure 4.1-13 existing view and the corresponding visual simulation demonstrates that the Proposed Project would result in a minor incremental visual change that would not substantially alter the existing landscape character or significantly affect views from nearby trails within Los Peñasquitos Canyon Preserve.

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Existing View from Trail to Peñasquitos Canyon near Briarlake Woods Drive looking northeast (Segment D - VP 19)



Visual Simulation of Proposed Project

Note: Refer to Figure 4.1-2 for photograph viewpoint location. Exact pole heights may vary depending upon field conditions.

# Sycamore to Peñasquitos 230 kV Transmission Line Project

Existing View and Visual Simulation from Trail near Briarlake Woods Drive Figure 4.1-12



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Existing View from Los Peñasquitos Canyon Trail North looking west (Segment D - VP 21)



Visual Simulation of Proposed Project

Note: Refer to Figure 4.1-2 for photograph viewpoint location. Exact pole heights may vary depending upon field conditions.

# Sycamore to Peñasquitos 230 kV Transmission Line Project

Existing View and Visual Simulation from Los Peñasquitos Canyon Figure 4.1-13



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### 4.1.4.5 <u>Question 1d – New Light or Glare</u>

#### **Construction – Less Than Significant Impact**

No night time construction is planned. Temporary security lighting may be installed at staging and storage yards. This lighting would be directed on site and away from any sensitive receptors. Therefore, no significant impact would occur.

#### **Operations and Maintenance – No Impact**

The Proposed Project area includes electric transmission, power, distribution, and substation facilities that are visible within the public viewshed. These existing facilities constitute the baseline from which impacts are measured. Neither the existing nor the proposed transmission and power line facilities are anticipated to require any permanent lighting, unless required for flight hazard lighting as determined by the FAA. New structures would use dulled galvanized steel which would minimize the potential for glare. Potential glare from overhead conductors would be similar to what currently exists within the Proposed Project area. Therefore, there are no impacts.

#### 4.1.5 **Project Design Features and Ordinary Construction/Operating Restrictions**

With implementation of the project design features and ordinary construction restrictions outlined within Section 3.8 in addition to the measures outlined below, potential impacts related to aesthetics would remain less than significant.

**Temporary Lighting:** Temporary lighting at staging and storage areas will be directed on site and away from any sensitive receptors.

**New Chain Link Fence:** New fencing installed as part of the Proposed Project including fencing around new cable poles will be a dull, non-reflective finish to reduce potential glare.

**Visual screening of staging yards.** Where staging yards are visible to the public, opaque mesh or slats (or equivalent material) will be installed along the fence that will soften the view of the staging yard from public vantage points such as roads, residences, and public vantage points.

**Cable Pole Final Design and Screen:** Final design of the eastern and western cable poles will consider design measures, such as landscaping installed outside of new perimeter chain-link fencing or decreased pole diameters, to reduce the visibility of each structure.

**Materials:** Non-specular conductor and dulled galvanized steel poles will be used in order to reduce potential glare.

#### 4.1.6 Applicant Proposed Measures

The Proposed Project has no potentially significant impacts relating to aesthetics; therefore, no APMs are proposed.

#### 4.1.7 Detailed Discussion of Significant Impacts

Based upon the preceding analysis, no potentially significant impacts relating to aesthetics are anticipated from the Proposed Project.

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Would	the project:	Potentially Significant Impact	Potentially Significant Unless APMs Incorporated	Less than Significant Impact	No Impact
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?				Ŋ
b.	Conflict with existing zoning for agricultural use, or a Williamson Act contract?				Ŋ
с.	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 Government Code section 51104(g))?				Ŋ
d.	Result in the loss of forest land or conversion of forest land to non-forest use?				V
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?				Ŋ

# 4.2 AGRICULTURE AND FORESTRY RESOURCES

#### 4.2.1 Introduction

This section of the PEA describes the existing conditions and potential project-related impacts to agricultural and forestry resources in the vicinity of the Proposed Project. In addition, this section evaluates the consistency of the Proposed Project with the Farmland Mapping and Monitoring Program (FMMP) and the Williamson Act, otherwise known as the California Land Conservation Act of 1965. The Proposed Project would not convert or otherwise adversely affect any agricultural or forestry resources, and therefore no impacts would result.

#### 4.2.2 Methodology

The agriculture and forestry resources analysis within this section involved a review of various documents, including aerial photographs of the Proposed Project area, the general plans for the cities of San Diego and Poway, and online information sources. The California Department of Conservation, Division of Land Resource Protection farmland map was reviewed to determine if, and where, Prime Farmland, Unique Farmland, or Farmland of Statewide Importance were located within the Proposed Project area. Also, Williamson Act property maps from the California Department of Conservation were reviewed.

#### 4.2.3 Existing Conditions

#### 4.2.3.1 <u>Regulatory Setting</u>

#### State

#### Farmland Mapping and Monitoring Program

The goal of the FMMP, administered by the California Department of Conservation, Division of Land Resource Protection, is to provide consistent and impartial data to decision makers for use in assessing present status, reviewing trends, and planning for the future of California's agricultural land resources. The basis of the mapping program is an agricultural land classification system that combines technical soil ratings based on soil classifications and current land use. The survey defines eight agricultural land categories:

- Prime Farmland: has the best combination of physical and chemical features able to sustain long-term agricultural production. It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when treated and managed, including water management, according to current farming methods. Prime Farmland must have been used for the production of irrigated crops at some time during the two update cycles prior to the mapping date.
- Farmland of Statewide Importance: is similar to Prime Farmland, but with minor shortcomings such as greater slopes or less ability to store soil moisture. Farmland of Statewide Importance must have been used for the production of irrigated crops at some time during the two update cycles prior to the mapping date.
- Unique Farmland: includes areas of lower quality soils that do not meet the criteria for Prime Farmland or Farmland of Statewide Importance, but that have been used for the production of specific high economic value crops during the two update cycles prior to the mapping date.
- Farmland of Local Importance: includes areas other than Prime Farmland, Farmland of Statewide Importance, or Unique Farmland that is either currently producing crops, has the capability of such production, or is used for the production of confined livestock. Farmland of Local Importance may be important to local economies due to its productivity or value, defined by each county's local advisory committee, and adopted by its Board of Supervisors.
- Grazing Land: is land on which the existing vegetation is suited to the grazing of livestock and includes, at a minimum, 40 acres.
- Urban and Built-up Land: is occupied by structures with a building density of at least one unit to 1.5 acres, or approximately six structures to a 10-acre parcel. Such lands include residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures.
- Other Land: land not included in any other mapping category such as low-density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry, or aquaculture facilities; strip mines and borrow pits; and water bodies smaller than 40 acres. Vacant and non-agricultural land greater than

40 acres, and surrounded on all sides by urban development, is also mapped as Other Land.

• Water: includes perennial water bodies with an extent of at least 40 acres.

The California Department of Conservation prepares, updates, and maintains maps and data used for categorizing agricultural potential (as described above) and assessing the location, quality, and quantity of agricultural lands and conversion of these lands over time. The maps are updated every two years based on aerial photograph review, computer mapping analysis, public input, and field reconnaissance. Coverage includes 47.9 million acres (96 percent of the state's private lands) and is based on the extent of the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil surveys. Most large government land holdings, including national parks, forests, and United States Bureau of Land Management (BLM) land, are not included in the FMMP's survey area.

# The Williamson Act

The California Land Conservation Act, better known as the Williamson Act, has been the State's primary agricultural land protection program since its enactment in 1965. More than 16 million of the State's 30 million acres of farm and ranch land are currently protected under the Williamson Act. The Williamson Act creates an arrangement whereby private landowners agree with counties and cities to voluntarily restrict land to agricultural and open-space uses. In return, the landowner receives property tax assessments that are lower than normal because the assessments are based on farming and/or open space uses rather than full market value. Local governments receive an annual subvention of forgone property tax revenues from the state via the Open Space Subvention Act of 1971. Williamson Act contracts automatically renew each year for a new 10-year period, unless either party files a "notice of non-renewal" to terminate the contract before the end of the current 10-year period. During the ensuing 10-year cancellation period following a "notice of non-renewal," property taxes are gradually raised to the applicable level for developable land.

The Williamson Act also authorizes cities and counties to establish Agricultural Preserves, referred to as Farmland Security Zones. An Agricultural Preserve defines the boundary of an area within which a city or county will enter into Williamson Act contracts with landowners. The boundary is designated by resolution of the board or city council having jurisdiction. Agricultural Preserves must include at least 100 acres. In Farmland Security Zones, the city or county can enter into a special type of contract called a "Farm Security Zone Contract." Farmland Security Zone contracts require a minimum initial term of 20 years and they renew annually unless either party files a "notice of nonrenewal," similar to a Williamson Act contract. To be eligible for a Farmland Security Zone contract, the subject land must be designated on the Important Farmland Series maps as predominantly Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance. Agricultural Preserves are generally intended to avoid areas where public utility improvements and related land acquisitions may be required (Government Code Section 51292).

Public agencies may avoid the requirements of Government Code Section 51292 (limitations on locating public improvements, including utility infrastructure within an agricultural preserve) if the public improvement is exempt from such requirements pursuant to Government Code Section 51293 (special exemptions). The Proposed Project would fall under one such exemption, which

covers the location or construction of any public utility improvement which has been approved by the CPUC (Government Code Section 51293(c)).

## Timberland and Timberland Production Zones

Timberland is privately owned land or land acquired for State forest purposes that is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, and that is capable of growing an average annual volume of wood fiber of at least 15 cubic feet per acre. A Timberland Production Zone is an area that has been zoned pursuant to Section 51112 or 51113 of the Government Code and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses. In California, a county board of supervisors may designate areas of timberland in the county as timberland preserves, which is the same as the state zoning designation of Timberland Production Zone. The land in a Timberland Production Zone is restricted in use to the production of timber for an initial 10-year term. The Proposed Project is not located within timberland or a Timberland Production Zone.

# Local

#### City of San Diego

The *City of San Diego General Plan*, Conservation Element, Section L – Agricultural Resources states City goals and policies relating to Agricultural Resources. The following are a few of the goals stated in the Conservation Element:

- Retention of productive agricultural lands.
- Greater use of sustainable agricultural practices.
- Reduction in land use conflicts between agriculture and other land uses.
- Retention of the rural agricultural character of river valleys.
- Expansion of urban agricultural uses.

#### City of Poway

The *City of Poway General Plan*, Natural Resources Element, Vegetation/Habitat Types in the City of Poway states that there are 838 acres of actively cultivated lands, fallow lands, and nursery operations currently, which make up three percent of the total vegetation type. Poway began as a farming community over a hundred years ago and some of the agricultural areas still remain. The following are a few of the goals stated in the Introduction, Natural Resources Element, and Community Development Sections:

- Encourage the combination of agricultural and rural residential uses.
- Retention of agricultural production lands.
- Preserve open space to maintain valuable natural resources.
- Reclaim water for agricultural production.

# 4.2.3.2 Agricultural and Forestry Setting

The County of San Diego (County) is consistently ranked among the top 10 agricultural counties (ranked eight for several years) in California. The County has the fourth highest number of farms of any county in the United States and third highest number of farms of any county in California. Agriculture is the fifth largest component of the County's economy.

According to the *City of San Diego General Plan*, Land Use and Community Planning Element, Table LU-1 – Existing Land Uses, Agricultural land makes up approximately 6,055 acres or 2.8 percent of the land area in the City of San Diego. Also, within the same document, Table LU-2 – Adopted Community Plan Land Uses, approximately 3,809 acres or 1.7 percent of the land area in the City of San Diego is designated by Community Plans as Agriculture. Agricultural Lands are mostly located in the extreme northern and southern portion of the City.

As described below, portions of the Proposed Project ROW cross land designated as Farmland of Local Importance and Unique Farmland as well as land that has been zoned for agricultural use.

# **Designated Farmland**

A review of California Department of Conservation, Division of Land Resource Protection maps has shown there are some lands that have been designated as Farmland of Local Importance and Unique Farmland within the vicinity of the Proposed Project ROW (see Figure 4.2-1, Proposed Route FMMP Map).

There is one area within the vicinity of the Proposed Project that is designated as Unique Farmland. This area is immediately north of Carmel Valley Road north of the area where the Proposed Project, Segments B and C meet. The Proposed Project ROW does not actually cross this property; however the existing SDG&E ROW does extend through this property to the north. At the point where the Proposed Project, Segments B and C meet, the transmission line facilities would be approximate 49 feet to the south of the edge of this property. However, the Proposed Project does include a stringing site that would be located within this property. This property is the site of the Evergreen Nursery, an approximately 80-acre property providing wholesale landscape plants and other related supplies. Also, there are several areas within the vicinity of the Proposed Project ROW that are designated as Farmland of Local Importance, including:

- The Proposed Project Segment B has Farmland of Local Importance adjacent to the corridor on both the north and south sides of Carmel Valley Road.
- The Proposed Project Segment C has Farmland of Local Importance adjacent to the corridor between Carmel Valley Road and SR-56, as well as adjacent to the corridor within McGonigle Canyon, to the south of SR-56.
- The Proposed Project Segment D has Farmland of Local Importance adjacent to the corridor, as well as to the north near Carmel Mountain Road and the Del Mar Mesa. There is also Farmland of Local Importance in three locations adjacent to the western-most (approximate) 1-mile portion of the alignment.

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Sources: County of San Diego Assessor and Department of Planning and Land Use, SanGIS 3/2013; SDG&E, 2013; Sources: Esri, DeLorme, HERE, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom

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# BACK OF FIGURE 4.2-1

# **Agricultural Zoning Designations**

A review of City of San Diego zoning maps was conducted to identify properties within the vicinity of the Proposed Project that are zoned for Agricultural use. Within the Proposed Project area, the only zoning classification for Agriculture is the Agricultural Residential (AR) zone. The purpose of the AR zone is to accommodate a wide range of agricultural uses while also permitting the development of single dwelling unit homes at a very low density. According to the City of San Diego zoning maps, each of the Proposed Project alignment segments crosses areas that are within AR zones. Approximately 1.8 miles of AR zones are within the corridor of Proposed Project Segment A, east of Carmel Valley Road and west of Laurentian Drive. Proposed Project Segment A also has approximately 0.7 mile of AR zones within the corridor south of Poway Road and I-15, approximately 0.7 mile of AR zones within the corridor south of Scripps Poway Parkway, and approximately 0.4 mile of AR zones within the corridor south of Stonebridge Parkway.

AR zones are adjacent to all but approximately 0.4 mile of the north side of the Proposed Project Segment B, along Carmel Valley Road. There are also AR zones adjacent to the southern portion of Proposed Project-Segment B, near Camino Del Sur. Approximately 1.3 miles of AR zones are within the corridor of Proposed Project Segment B.

There are AR zones within approximately 1.2 miles of the southern portion of the corridor of Proposed Project Segment C. There are also approximately 0.2 mile of AR zones within the corridor of Proposed Project Segment C.

AR zones are adjacent to the southern portion of the Proposed Project-Segment D, north of Sorrento Valley Boulevard and Calle Cristobal. Approximately 1.4 miles of AR zones are within the corridor, on the far northeast section of Proposed Project Segment D. Based on a review of the City of Poway Zoning Classifications, there is no agricultural zoning within the City of Poway Proposed Project ROW. Within the City of Poway there is no land, either within or adjacent to the Proposed Project ROW, that is in active agricultural use.

#### **Designated Forest Land**

According to the California Department of Conservation and *City of San Diego General Plan* Existing Land Use, there is no land designated for forestry purposes within the Proposed Project area

# 4.2.4 Potential Impacts

# 4.2.4.1 <u>Significance Criteria</u>

Standards of impact significance were derived from Appendix G of the *CEQA Guidelines*. Under these guidelines, the Proposed Project could have a potentially significant impact to agricultural resources if it would:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and 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; or
- 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.

#### 4.2.4.2 Question 2a - Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Resources Agency, to non-agricultural use?

#### **Construction – No Impact**

Proposed Project Segments B, C, and D all cross areas of land that have been designated as Farmland of Local Importance (refer to Figure 4.2-1). Proposed Project Segment A does not cross any areas of land that have been designated as Farmland of Local Importance. Construction of the Proposed Project would be temporary, and would include construction occurring within Carmel Valley Road (Proposed Project Segment B), on existing steel structures (Proposed Project Segment C), and replacing existing wood H-frames with new steel poles in a different position within the corridor (Proposed Project Segment D). It would not convert any Farmland to non-agricultural use. Additionally, Stringing Site No. 11 would be located within land designated as Unique Farmland (existing Evergreen Nursery) at the western end of Proposed Project Segment B. However, this temporary use of this area would not affect the continued use of the property for agricultural operations and, as such, would also not convert any Farmland to non-agricultural use. Therefore, no impact to Farmland of Local Importance would result from construction of the Proposed Project.

# **Operation & Maintenance – No Impact**

The Proposed Project would replace and relocate existing electric transmission and power line facilities and add one new transmission line within existing utility corridors and franchise position within City streets. All proposed new and relocated facilities are located in existing SDG&E ROW that contain similar facilities that are currently operated and maintained, except for the new underground segment of 230 kV transmission line proposed in Segment B, which would have a very marginal effect on SDG&E's existing underground inspection and maintenance program. Operations and maintenance activities would not significantly increase in intensity, frequency, or duration with implementation of the Proposed Project and would be substantially similar to existing operations and maintenance activities. No Farmland would be converted to non-agricultural use. Therefore, no impacts would occur.

#### 4.2.4.3 <u>Question 2b - Conflict with existing zoning for agricultural use, or a Williamson</u> <u>Act contract?</u>

#### **Construction – No Impact**

Williamson Act contract properties maps from the California Department of Conservation were reviewed, and there are no such properties located anywhere near the Proposed Project ROW. All segments of the Proposed Project ROW cross through areas of land that are zoned (by the City of San Diego) for agricultural use (AR zoning designation). Within the small portion of the Proposed Project Segment A that passes through the City of Poway, there is no land either within or adjacent to the Proposed Project ROW that is zoned (by the City of Poway) for agricultural use. Construction of the Proposed Project within the existing ROW where electrical transmission line facilities are already located would not conflict with the requirements under the City of San Diego's zoning ordinance. Therefore, there would be no impacts to existing agricultural uses or a Williamson Act contract.

#### **Operation & Maintenance – No Impact**

The Proposed Project would replace and relocate existing electric transmission and power line facilities and add one new transmission line within existing utility corridors and franchise position within City streets. All proposed new and relocated facilities are located in existing SDG&E ROW that contain similar facilities that are currently operated and maintained, except for the new underground segment of 230 kV transmission line proposed in Segment B, which would have a very marginal effect on SDG&E's existing underground inspection and maintenance program. Upon completion of construction activities, the Proposed Project would operate unmanned. Operations and maintenance activities would not significantly increase in intensity, frequency, or duration with implementation of the Proposed Project and would be substantially similar to existing operations and maintenance activities. The Proposed Project would not conflict with agricultural zoning or any Williamson Act contract. Therefore, no impacts would occur.

#### 4.2.4.4 Question 2c - Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

#### **Construction & Operation and Maintenance – No Impact**

The Proposed Project impact area is not zoned as forest land or timberland, and there are no forests or timber harvest areas in the vicinity of the Proposed Project. Therefore, no impact on forest land or timberland would occur as a result of the construction, operation and maintenance of the Proposed Project.

# 4.2.4.5 <u>Question 2d - Result in the loss of forest land or conversion of forest land to non-forest use?</u>

#### **Construction – No Impact**

There are no forests or similar areas in the vicinity of the Proposed Project and therefore no conversion of forest land to other uses would occur as a result of the construction of proposed facilities and improvements under the Proposed Project. Therefore, no impact on existing forest land or timberland would occur.

#### **Operation & Maintenance – No Impact**

There are no forests or similar areas in the vicinity of the Proposed Project and therefore no conversion of forest land to other uses would occur as a result of the operations and maintenance of proposed facilities and improvements under the Proposed Project. Therefore, no impact on existing forest land or timberland would occur.

#### 4.2.4.6 <u>Question 2e - Involve other changes in the existing environment which, due to</u> their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use?

#### **Construction – No Impact**

There is currently no utilized farmland within the Proposed Project impact area. Also, there are no forest lands or similar areas on or near the Proposed Project's physical footprint. Stringing Site No. 11 would be located within land designated as Unique Farmland (existing Evergreen Nursery). However, this temporary use of this area would not affect the continued use of the property for agricultural operations. Therefore, the Proposed Project would not result in 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. There would be no impacts in this regard.

#### **Operation & Maintenance – No Impact**

The entire Proposed Project site, except for the undergrounding in Segment B within Carmel Valley Road, contains existing electric transmission, power, distribution and substation uses, which would be replaced and upgraded. Because operation and maintenance of the Proposed Project would occur in the same or essentially the same locations as they occur today under baseline, existing conditions, there would not be any new impacts resulting from operation and maintenance of the Proposed Project.

# 4.2.5 Project Design Features and Ordinary Construction/Operating Restrictions

There are no project design features or ordinary construction/operating restrictions related to agriculture or forestry that are applicable to the Proposed Project.

# 4.2.6 Applicant Proposed Measures

The Proposed Project has no potentially significant impacts relating to agricultural and forestry resources; therefore, no APMs are proposed.

# 4.2.7 Detailed Discussion of Significant Impacts

Based on the preceding analysis, no significant impacts relating to agriculture and forestry are anticipated from the Proposed Project.

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# 4.3 AIR QUALITY AND GREENHOUSE GASES

Would	the Project:	Potentially Significant Impact	Potentially Significant Unless APMs Incorporated	Less than Significant Impact	No Impact
a.	Conflict with or obstruct implementation of the applicable air quality plan?			V	
b.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			V	
с.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			Ø	
d.	Expose sensitive receptors to substantial pollutant concentrations?			V	
e.	Create objectionable odors affecting a substantial number of people?			V	
f.	Diminish an existing air quality rule or future compliance requirement resulting in a significant increase in air pollutant(s)?			Ŋ	
g.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			Ø	
h.	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				Ø

#### 4.3.1 Introduction

This section describes existing air quality resources in the vicinity of the Proposed Project and assesses potential air quality impacts that would occur as a result of the Proposed Project, particularly for short-term construction activities and long-term operations. In addition, this

section evaluates the Proposed Project for air quality impacts resulting from non-conformity with applicable air quality plans and violation of ambient air quality standards (AAQS).

For the purpose of the air quality analysis, all of the components of the Proposed Project are treated as a single project. These components include constructing the new 230 kV transmission line between the Sycamore Canyon and Peñasquitos Substations; upgrades to the existing 230 kV transmission lines; relocation and upgrading of the existing 138 kV power lines; relocation and upgrading of the existing 69 kV power lines; and modifications at the Sycamore Canyon and Peñasquitos Substations. Because the entire Proposed Project would be located within the San Diego Air Basin, and because emissions from all of Proposed Project components have the potential to affect air quality within the San Diego Air Basin, it is appropriate to analyze total impacts from the entire Proposed Project rather than to separate out the analysis by component. Additionally, the impact on climate from greenhouse gas (GHG) emissions related to the entire Proposed Project is assessed.

The Proposed Project would have no impact relating to conflicts with the applicable plan for reducing GHG emissions. Impacts would be less than significant during construction and operations for generating GHG emissions, either directly or indirectly. Impacts would be less than significant and temporary during construction and would have no impact during operations for all other categories.

# 4.3.2 Methodology

Federal, state, and regional/local regulations and policies were consulted to determine the Proposed Project's level of compliance with, and potential impacts to, applicable air quality plans and/or standards. Information for this section was obtained from Internet searches of federal, state, and regional/local websites. Refer also to Appendix 4.3-A, Air Quality Assessment, for additional discussion of the methods used to predict air quality impacts resulting from the Proposed Project.

This analysis of air quality impacts used the latest version of the California Emissions Estimation Model (CalEEMod), Version 2013.2. CalEEMod contains emissions factors from the California Air Resources Board (CARB)'s OFFROAD Model for heavy construction equipment and CARB's EMFAC2011 Model for on-road vehicles. This analysis covers construction in the short term and operation and maintenance in the long term. The model also calculates GHG emissions from construction and operation and maintenance.

# 4.3.3 Existing Conditions

This section describes the regulations and regulatory agencies that have jurisdiction over the Proposed Project, regional climate and meteorology, and existing air quality conditions in the area.

# 4.3.3.1 <u>Air Quality Regulatory Setting</u>

# Federal

National air quality policies are regulated through the Federal Clean Air Act (FCAA) of 1970 and its 1977 and 1990 amendments. Pursuant to the FCAA, the U.S. Environmental Protection

Agency (USEPA) has established National Ambient Air Quality Standards (NAAQS) for criteria air pollutants, which include ozone ( $O_3$ ), carbon monoxide (CO), nitrogen dioxide ( $NO_2$ , which is a form of nitrogen oxides known as  $NO_X$ ), sulfur dioxide ( $SO_2$ , which is a form of sulfur oxides known as  $SO_x$ ), particulate matter less than 10 and 2.5 microns in diameter ( $PM_{10}$  and  $PM_{2.5}$ , respectively), and lead. These pollutants are referred to as criteria pollutants because USEPA has established numerical criteria that define acceptable levels of exposure for each pollutant. USEPA has revised the NAAQS several times since their original implementation, and will continue to do so as the health effects of exposure to air pollution are better understood.

USEPA designates federal nonattainment areas if they have not achieved the NAAQS. Under the 1977 amendments to the FCAA, states with air quality that did not achieve the NAAQS were required to develop and maintain state implementation plans (SIPs). These SIPs constitute a federally enforceable definition of the state's approach and schedule for the attainment of the NAAQS. Air quality management areas were designated as attainment, nonattainment, or unclassified for individual pollutants, depending on whether they achieve the applicable NAAQS and California Ambient Air Quality Standards (CAAQS) for each pollutant. In addition, California can designate areas as transitional. Because the NAAQS and CAAQS differ in many cases, it is possible for an area to be designated attainment by USEPA (meets NAAQS) and nonattainment by California (does not meet CAAQS) for the same pollutant.

Nonattainment areas under different classifications have different deadlines to achieve the NAAQS. Extreme nonattainment areas are subject to a deadline of June 2024 to attain the NAAQS for  $O_3$ . Severe-15 nonattainment areas are subject to a deadline of June 2019 to attain the NAAQS for  $O_3$ . Serious nonattainment areas were subject to a deadline of June 2013 to attain the NAAQS for  $O_3$ . There are no areas that are currently designated as "severe-17" nonattainment areas for the NAAQS for  $O_3$ . Areas that lack monitoring data are designated as unclassified areas. Unclassified areas are treated as attainment areas for regulatory purposes.

# State

CARB was created in 1967 by merging the California Motor Vehicle Pollution Control Board with the Bureau of Air Sanitation and its Laboratory. Under the FCAA, states may enact their own statewide air quality regulations and standards, provided that they are at least as stringent as the FCAA. In 1988, the California Clean Air Act (CCAA) was enacted to regulate air quality within California. CARB, a department of the California Environmental Protection Agency (CalEPA), oversees air quality planning and control throughout California. Its responsibility lies with ensuring implementation of the CCAA, responding to FCAA requirements, and regulating pollutant emissions from motor vehicles sold in California. It also sets fuel specifications to further reduce vehicular emissions.

The CCAA established the CAAQS and a legal mandate to achieve these standards by the earliest practicable date. These standards apply to the same criteria pollutants as the NAAQS, but also include sulfate, visibility, hydrogen sulfide, and vinyl chloride.

# Local

CARB designated San Diego County as a discrete air basin under the jurisdiction of San Diego Air Pollution Control District (SDAPCD). In addressing its planning role with respect to the NAAQS, SDAPCD most recently developed an Ozone Redesignation Request and Maintenance Plan, which served as the basis for USEPA's re-designation of the San Diego Air Basin as an attainment zone for the 1-hour ozone standard on July 28, 2003. As of April 30, 2012, the San Diego Air Basin has been designated as a marginal nonattainment area for the 8-hour ozone standard.

The Regional Air Quality Strategy (RAQS) was established by SDAPCD in 1991 to address state air quality planning requirements (focusing on O<sub>3</sub>). The latest revision was published on April 22, 2009. SDAPCD is responsible for overall development and implementation of the RAQS. RAQS control measures focus on emissions sources under SDAPCD's authority, specifically, stationary emissions sources and some area-wide sources. However, the emissions inventories and emissions projections in the RAQS reflect the impact of all emissions sources and all control measures, including those under the jurisdiction of CARB (e.g., on-road motor vehicles, off-road vehicles and equipment, and consumer products) and USEPA (e.g., aircraft, ships, trains, and pre-empted off-road equipment). While legal authority to control different pollution sources is separated, SDAPCD is responsible for reflecting federal, state, and regional/local measures in a single plan to achieve ambient air quality standards in San Diego County.

To evaluate the potential for stationary sources to cause or contribute to a violation of an air quality standard, SDAPCD established emissions thresholds in its Rules 20.2 and 20.3 on New Source Review. If emissions from a stationary source exceed the thresholds established in these rules, further evaluation must be conducted to assess whether the source would cause or contribute to a violation of an air quality standard. SDAPCD has not established rules for characterizing impacts from construction. However, SDAPCD informally recommends quantifying construction emissions and comparing them to significance thresholds found in the SDAPCD regulations for stationary sources (Rule 20.2 et seq.) and shown in Table 4.3-1, Air Pollution Control District's Screening Level Thresholds. If construction-phase emissions exceed these thresholds for a stationary-source air-quality-impact analysis, then construction has the potential to violate air quality standards or to contribute substantially to existing violations. Significance thresholds are shown in Table 4.3-1. While this PEA uses these thresholds as a guide, this PEA also evaluates if other substantial evidence, in light of the whole record, indicates that the Proposed Project could have a significant air quality impact, including proximity of sensitive receptors. This additional evaluation provides a conservative analysis of the Proposed Project's air quality impacts.

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Pollutant	Pounds per Day
Carbon Monoxide (CO)	550
Oxides of Sulfur (SO <sub>X</sub> )	250
Volatile Organic Compounds (VOCs)	75
Oxides of Nitrogen (NO <sub>X</sub> )	250
Particulate Matter (PM <sub>10</sub> )	100
Particulate Matter (PM <sub>2.5</sub> )	55
Notes:	

# Table 4.3-1: Air Pollution Control District's Screening Level Thresholds

The San Diego County Air Pollution Control District does not have thresholds of significant for VOCs or  $PM_{2.5}$ . As such, VOC and  $PM_{2.5}$  thresholds from the South Coast Air Quality Management District were used.

Source: SDAPCD, 1995.

# 4.3.3.2 Greenhouse Gases and Global Climate Change Regulatory Setting

Global climate change refers to any significant change in measures of climate, such as average temperature, precipitation, or wind patterns over a period of time. Global climate change may result from natural factors, natural processes, and human activities that change the composition of the atmosphere.

Different GHGs have varying global warming potentials. Global warming potential is the effectiveness of a gas or aerosol to trap heat in the atmosphere. According to USEPA, global warming potential is the "cumulative radiative forcing effect of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to a reference gas." The reference gas for global warming potential is carbon dioxide (CO<sub>2</sub>); therefore, CO<sub>2</sub> has a global warming potential of 1. The other main GHGs that have been attributed to human activity include methane (CH<sub>4</sub>), which has a global warming potential of 21, and nitrous oxide (N<sub>2</sub>O), which has a global warming potential of 310. Table 4.3-2, Global Warming potentials and Atmospheric Lifetimes of Greenhouse Gases, presents the global warming potential and atmospheric lifetimes of common GHGs. Please note that USEPA has subsequently added nitrogen tri-fluoride to the list of regulated GHGs.

Table 4.3-2: Global Warming Potentials and Atmospheric Lifetimes of Greenhouse Gases

GHG	Formula	100-Year Global Warming Potential	Atmospheric Lifetime (Years)		
Carbon Dioxide	$CO_2$	1	Variable		
Methane	$CH_4$	21	$12 \pm 3$		
Nitrous Oxide	$N_2O$	310	120		
Sulfur Hexafluoride	SF <sub>6</sub>	23,900	3,200		
Source: United Nations Framework Convention on Climate Change, Global Warming Potentials, 2013.					

## SDG&E Programs

SDG&E has been engaged for many years in activities to reduce GHG emissions. These activities include programs to increase energy efficiency, and efforts to meet the Renewables Portfolio Standard of 33 percent by 2020. In 2011, 20.8 percent of SDG&E's retail sales were from renewable energy sources.

SDG&E submits a mandatory Long-Term Procurement Plan (LTPP) to the CPUC that describes its strategy for meeting forecasted load during the next 10 years. The LTPP must be consistent with the "loading order" prescribed in the CEC's Energy Action Plan to meet growth first with conservation, then with renewable sources of electricity, and finally with new fossil-fueled sources to the extent necessary. New generation sources must be consistent with the LTPP. The CPUC approved SDG&E's most recent LTPP in September 2008.

The LTPP includes the following programs to reduce GHG emissions:

- Energy efficiency, which will reduce needed capacity by 487 MW by 2016;
- Demand response, which will reduce needed capacity by 249 MW by 2016;
- Renewables, which will provide 318 MW in 2010, and 727 MW in 2016; and
- New peaker plants to back up intermittent renewables and support retirement of older plants.

Forecasted reductions from these programs are greater than 1.5 million metric tons (MMT) carbon dioxide equivalent ( $CO_2e$ ) per year. These efforts will reduce carbon intensity by one-third while accommodating continued population growth and will ensure consistency with the applicable plans, policies, and regulations adopted by California to reduce GHG emissions.

# Federal

# Endangerment Finding

On April 17, 2009, the USEPA issued its proposed endangerment finding for GHG emissions. On December 7, 2009, the USEPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the FCCA:

**Endangerment Finding:** USEPA found that the current and projected concentrations of the six key well-mixed GHGs ( $CO_2$ ,  $CH_4$ ,  $N_2O$ , hydrofluorocarbons [HFCs], perfluorocarbons [PFCs], and sulfur hexafluoride [SF<sub>6</sub>]) in the atmosphere threaten the public health and welfare of current and future generations.

**Cause or Contribute Finding:** USEPA found that the combined emissions of these wellmixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution, which threatens public health and welfare.

The endangerment findings do not themselves impose any requirements on industry or other entities. However, this action is a prerequisite to finalizing USEPA's proposed GHG emission standards for light-duty vehicles, which were jointly proposed by USEPA and the DOT's National Highway Safety Administration on September 15, 2009.

# Mandatory Reporting of Greenhouse Gases, 40 CFR Part 98

USEPA's rule entitled Mandatory Reporting of Greenhouse Gases (40 CFR Part 98) requires mandatory reporting of GHGs for certain facilities. Subpart DD of the rule, titled Electrical Transmission and Distribution Equipment Use, applies to  $SF_6$  reporting from gas insulated substations.

Under the final Mandatory Reporting Rule for Additional Sources of Fluorinated GHGs, owners and operators of electric power system facilities with a total nameplate capacity that exceeds 17,820 pounds (lbs) (7,838 kilograms) of SF<sub>6</sub> and/or PFCs must also report emissions of SF<sub>6</sub> and/or PFCs from the use of electrical transmission and distribution equipment. Owners or operators must collect emissions data, calculate GHG emissions, and follow the specified procedures for quality assurance, missing data, recordkeeping, and reporting.

The rule requires that each electric power system facility must report total  $SF_6$  and PFC emissions (including emissions from equipment leaks, installation, servicing, decommissioning, and disposal, and from storage cylinders) from the following types of equipment:

- Gas-insulated substations;
- Circuit breakers;
- Switchgear, including closed-pressure and hermetically sealed-pressure switchgear;
- Gas-insulated lines containing SF<sub>6</sub> or PFCs;
- Gas containers such as pressurized cylinders;
- Gas carts;
- Electric power transformers; and
- Other containers of SF<sub>6</sub> or PFCs.

Only the Proposed Project's transmission circuit breakers would contain SF<sub>6</sub>. The capacity of SDG&E's overall electric power system facilities exceeds 17,820 lbs. SDG&E therefore would report on SF<sub>6</sub> from the Proposed Project's circuit breakers as part of its overall reporting under Subpart DD.

Facilities subject to Subpart DD began monitoring GHG emissions on January 1, 2011, in accordance with the methods specified in Subpart DD. The deadline for reporting is March 31 of each year, unless that date falls on a weekend, in which case the report is due the next business day.

# State

California Health and Safety Code Section 38505(g) defines GHGs as any of the following compounds: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, and SF<sub>6</sub>. CO<sub>2</sub>, followed by CH<sub>4</sub> and N<sub>2</sub>O, are the most common GHGs that result from human activity.

In the State of California GHG Inventory, CARB compiled statewide anthropogenic GHG emissions and sinks, which include processes that uptake GHG emissions (see Table 4.3-3, State

of California Greenhouse Gas Emissions by Sector). The inventory includes estimates for  $CO_2$ ,  $CH_4$ ,  $N_2O$ ,  $SF_6$ , HFCs, and PFCs. The current inventory covers 1990 to 2008, and is summarized in Table 4.7-3. Data sources used to calculate this GHG inventory include California and federal agencies, international organizations, and industry associations. Calculation methodologies applied are consistent with guidance from the Intergovernmental Panel on Climate Change (IPCC). The 1990 emissions level is the sum total of sources and sinks from all sectors and categories in the inventory. CARB's original inventory was divided into seven broad sectors and categories, which include Agriculture, Commercial, Electricity Generation, Forestry, Industrial, Residential, and Transportation. The latest inventory includes GHG emissions from recycling and waste management, high-global warming potential gas emissions, and reductions in GHG emissions related to forestry (forestry sinks).

Sector	Total 1990 Emissions (MMTCO <sub>2</sub> e) <sup>1</sup>	Percent of Total 1990 Emissions	Total 2008 Emissions (MMTCO <sub>2</sub> e)	Percent of Total 2008 Emissions		
Agriculture	23.4	5%	28.06	6%		
Commercial	14.4	3%	14.68	3%		
Electricity Generation	110.6	26%	116.35	25%		
Forestry (excluding sinks)	0.2	<1%	0.19	<1%		
Industrial	103.0	24%	92.66	20%		
Residential	29.7	7%	28.45	6%		
Transportation	150.7	35%	174.99	37%		
Recycling and Waste	-	-	6.71	1%		
High Global Warming Potential Gases	-	-	15.65	3%		
Forestry Sinks	(6.7)	-	(3.98)	-		
Notes: <sup>1</sup> MMTCO <sub>2</sub> e refers to million metric tons of carbon dioxide equivalent emissions. Source: <i>CARB</i> , 2007.						

 Table 4.3-3: State of California Greenhouse Gases Emissions by Sector

The following subsections describe regulations and standards adopted by California to address global climate change issues.

# Assembly Bill 32, the California Global Warming Solutions Act of 2006

In September 2006, Governor Schwarzenegger signed California Assembly Bill (AB) 32, the Global Warming Solutions Act, into law. Pursuant to AB 32, CARB adopted a comprehensive AB 32 Scoping Plan in December 2008, which outlined programs designed to achieve the 2020 GHG reduction goal of 174 MMT of  $CO_2e$  emissions through regulations, market mechanisms, and other actions.

For the electricity sector, the scoping plan adopted CPUC's fundamental recommendations for both investor-owned and publicly-owned utilities to continue and increase implementation of programs designed to reduce emissions, including energy efficiency programs, increasing the use of electricity supplies obtained from renewable generation sources to 33 percent by 2020, and adopting a cap and trade system to ensure an overall reduction of emissions from electric generation.

The AB 32 Scoping Plan Measure H-6 led to CARB's Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear (17 CCR, Sections 95350-95359). CARB's SF<sub>6</sub> regulation sets the maximum emission rate for SF<sub>6</sub>-containing equipment at 10 percent by 2011. The maximum allowable emission rate decreases by one percent each year. In 2020, the threshold will remain at one percent.

#### State Standards Addressing Vehicular Emissions

California AB 1493 (Pavley), enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. CARB adopted the regulations on September 24, 2009, to reduce GHG emissions in new passenger vehicles from 2009 through 2016. CARB has estimated that the regulations will reduce climate change emissions from light duty passenger vehicle fleet by an estimated 18 percent in 2020 and by 27 percent in 2030.

#### Senate Bills 1078 and 107 and Executive Order S-14-08

Senate Bill 1078 requires retail sellers of electricity to provide at least 20 percent of their supply from renewable sources by 2017. Senate Bill 107 changed the target date to 2010. In November 2008, Governor Schwarzenegger signed Executive Order S-14-08, which expands the Renewables Energy Standard to 33 percent by 2020. In April 2011, the California legislature enacted Senate Bill 2X, which mandates the Renewables Portfolio Standard of 33 percent by 2020 for investor-owned and publicly-owned utilities.

#### Executive Order S-21-09

Executive Order S-21-09 directs CARB to work with the CPUC and CEC to implement the Renewables Portfolio Standard of 33 percent by 2020.

On May 5, 2011, CPUC adopted Order Instituting Rulemaking 11-05-005 to open a new proceeding for the Renewables Portfolio Standard.

CARB is also working with the CAISO and other load balancing authorities to address reliability, renewable integration requirements, and interactions with wholesale power markets. CARB has established a loading order in its Energy Action Plan for resources that provide the greatest environmental benefits with the least environmental costs and impacts on public health.

# 4.3.3.3 Existing Air Quality and Climate Conditions

#### San Diego Air Basin Characteristics

One of the main determinants of the San Diego Air Basin's climatology is the Pacific High, a semi-permanent high-pressure center over the Pacific Ocean. In the summer, this pressure center is located well to the north, directing storm tracks north of California. This high-pressure cell maintains clear skies for much of the year. When the Pacific High moves southward during the winter, this pattern changes, and low-pressure storms are brought into the region, causing widespread precipitation.

# San Diego Air Basin Climate

The San Diego Air Basin's climate is characterized by warm, dry summers and mild, wet winters. The climate of San Diego, as with all of Southern California, is largely controlled by the strength and position of the Pacific High. This high-pressure ridge over the West Coast creates a repetitive pattern of frequent early morning cloudiness, hazy afternoon sunshine, clean daytime onshore breezes, and little temperature change throughout the year. Limited rainfall occurs in the winter when the oceanic high-pressure center is weakest and farthest south, as the fringes of mid-latitude storms occasionally move through the area. The average temperatures in January range from 47 degrees Fahrenheit (°F) at night to 63°F during the day. The warmest month is August, when the high temperatures average 74°F. The average annual rainfall is approximately 10 inches.

# **Temperature Inversion and Air Pollutant Concentrations**

The onshore flow of marine air and nocturnal winds are accompanied by two characteristic temperature inversion conditions that control the rate of air pollution dispersal throughout the San Diego Air Basin. The daytime cool onshore flow is capped by a deep layer of warm, sinking air. Along the coastline, the marine air layer beneath the inversion cap is deep enough to accommodate any locally generated emissions. However, as the layer moves inland, pollution sources (especially automobiles) add pollutants from below without any dilution from above through the inversion interface. When this polluted layer approaches foothill communities east of coastal developments, it becomes shallower and exposes residents in those areas to concentrated pollution by-products from coastal area sources.

The same atmospheric conditions that create a desirable living climate combine to limit the atmosphere's ability to disperse air pollution generated by the large population attracted to the pleasant climate. Onshore winds across the coastline diminish quickly when they reach the foothill communities east of San Diego. The sinking air within the offshore high-pressure system forms a massive temperature inversion that traps air pollutants near the ground. The resulting horizontal and vertical stagnation, in conjunction with ample sunshine, causes a number of reactive pollutants to undergo photochemical reactions and form smog, which degrades visibility and irritates human tear ducts and nasal membranes. While programs to control emissions of air pollutants have substantially improved regional air quality within the last several decades, some parts of the San Diego Air Basin do not meet air quality standards.

# Local Climate

Local meteorological conditions in the Proposed Project vicinity conform to the regional pattern of strong onshore winds by day (especially in the summer) and weak offshore winds at night (particularly during the winter). These local wind patterns are driven by the temperature difference between the ocean and the warm interior topography. In the summer, moderate daytime breezes of 8 to 12 miles per hour blow onshore and up through the valley from the southwest. Light onshore breezes may continue throughout the night when the land remains warmer than the ocean. In the winter, the onshore flow is weaker and the wind flow reverses to blow from the northeast in the evening as the land becomes cooler than the ocean.

# Air Quality

CARB sets state air quality standards and monitors ambient air quality at approximately 250 air quality monitoring stations across the state. Air quality monitoring stations usually measure pollutant concentrations 10 feet above ground level. Therefore, air quality is often referred to in terms of ground-level concentrations. Ambient air pollutant concentrations in the San Diego Air Basin are measured at 10 air quality monitoring stations operated by SDAPCD.

For the air quality evaluation, data from the Kearny Mesa Monitoring Station, located at Kearny Villa Road in the City of San Diego, were used. This data included O<sub>3</sub>, NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. Data collected at this monitoring station are representative of the air quality experienced on-site from 2010 through 2012; refer to Table 4.3-3, Local Air Quality Levels. The Kearny Mesa Monitoring Station does not measure CO or SO<sub>2</sub>, and the monitoring station commenced monitoring NO<sub>2</sub>, PM<sub>2.5</sub> and PM<sub>10</sub> in 2012. The Overland Avenue Monitoring Station measured NO<sub>2</sub>, PM<sub>2.5</sub> and PM<sub>10</sub> in 2010 and 2011; these data are presented in Table 4.3-3. The closest monitoring station to the site that measures CO and SO<sub>2</sub> is the downtown San Diego site. Data for CO and SO<sub>2</sub> from this monitoring station are presented in Table 4.3-3. The Kearny Mesa Monitoring Station is close enough to the Proposed Project area to provide accurate information about the environmental setting. The following air quality information briefly describes the various types of pollutants.

# Ozone $(O_3)$

 $O_3$  occurs in two layers of the atmosphere. The layer surrounding Earth's surface is the troposphere. The troposphere extends approximately 10 miles above ground level, where it meets the second layer, the stratosphere. The stratospheric layer extends upward from about 10 to 30 miles, and protects life on Earth from the sun's ultraviolet rays (UV-B). In the troposphere,  $O_3$  is a photochemical pollutant formed from reactions between volatile organic compounds (VOCs) and NO<sub>X</sub> with the presence of sunlight, referred to as "photochemical smog." Therefore, VOCs and NO<sub>X</sub> are  $O_3$  precursors. VOCs and NO<sub>X</sub> are emitted from various sources throughout the San Diego Air Basin. Significant  $O_3$  formation generally requires an adequate amount of precursors in the atmosphere and several hours in a stable atmosphere with strong sunlight. High  $O_3$  concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

Many respiratory ailments and cardiovascular disease are aggravated by exposure to high  $O_3$  levels.  $O_3$  also damages natural ecosystems (such as forests and foothill plant communities), agricultural crops, and some human-created materials (such as rubber, paint, and plastics).

Societal costs from  $O_3$  damage include increased healthcare costs, loss of human and animal life, accelerated replacement of industrial equipment, and reduced crop yields.

# Carbon Monoxide (CO)

Carbon monoxide (CO) is an odorless, colorless toxic gas that is emitted by mobile and stationary sources. It is a result of incomplete combustion of hydrocarbons or other carbonbased fuels. In cities, automobile exhaust can cause as much as 95 percent of all CO emissions. At high concentrations, CO can reduce the oxygen-carrying capacity of the blood and cause headaches, dizziness, and unconsciousness.

#### Nitrogen Dioxide (NO<sub>2</sub>)

 $NO_X$  are a family of highly reactive gases that are a primary precursor to the formation of ground-level  $O_3$ , and react in the atmosphere to form acid rain. USEPA and CARB established AAQS for  $NO_2$ .  $NO_2$  is a reddish-brown gas that can cause breathing difficulties at high levels. Peak readings of  $NO_2$  occur in areas that have a high concentration of combustion sources (e.g., motor vehicle engines, power plants, refineries, and other industrial operations).

 $NO_2$  can irritate and damage lungs, and lower resistance to respiratory infections, such as influenza. The health effects of short-term exposure are still unclear. However, continued or frequent exposure to  $NO_2$  concentrations that are typically much higher than those normally found in the ambient air may increase acute respiratory illnesses in children and increase the incidence of chronic bronchitis and lung irritation. Chronic exposure to  $NO_2$  may aggravate eyes and mucus membranes and cause pulmonary dysfunction.

#### Sulfur Dioxide (SO<sub>2</sub>)

 $SO_2$  is a colorless reactive gas that is produced from burning sulfur-containing fuels such as coal and oil, and by other industrial processes. Generally, the highest  $SO_2$  concentrations are found near large industrial sources.  $SO_2$  is a respiratory irritant that can cause narrowing of airways, leading to wheezing and shortness of breath. Long-term exposure to  $SO_2$  can cause respiratory illness and aggravate existing cardiovascular disease.

#### Particulate Matter (PM<sub>10</sub>)

 $PM_{10}$  refers to suspended particulate matter, which is smaller than 10 microns, or 10 onemillionths of a meter.  $PM_{10}$  arises from sources such as road dust, diesel soot, combustion products, construction operations, and dust storms.  $PM_{10}$  scatters light and significantly reduces visibility. In addition, these particulates penetrate the lungs and can potentially damage the respiratory tract. On June 19, 2003, CARB adopted amendments to the statewide 24-hour particulate matter standards based on requirements set forth in the Children's Environmental Health Protection Act (Senate Bill 25).

# Fine Particulate Matter (PM<sub>2.5</sub>)

Due to increased concerns over health impacts related to fine particulate matter (particulate matter 2.5 microns in diameter or less), federal and state  $PM_{2.5}$  standards were created. Particulate matter impacts primarily affect infants, children, older adults, and those with pre-

existing cardiopulmonary disease. Due to its smaller size,  $PM_{2.5}$  has the potential to lodge more deeply in the lungs than  $PM_{10}$ . USEPA and CARB have revised their AAQS for  $PM_{2.5}$  to more stringent levels since the standards were originally proposed in 1997. Almost everyone in California is exposed to levels at or above the current state standards during some parts of the year, and the statewide potential for significant health impacts associated with particulate matter exposure was determined to be large and wide-ranging.

#### Reactive Organic Gases (ROGs) and Volatile Organic Compounds (VOCs)

Hydrocarbons are organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases, including reactive organic gases (ROGs) and VOCs. ROGs and VOCs are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. The major sources of hydrocarbons are combustion engine exhaust, oil refineries, and oil-fueled power plants. Other common sources are petroleum fuels, solvents, dry cleaning solutions, and paint (via evaporation).

#### Lead

Lead in the atmosphere occurs as particulate matter. Lead was historically emitted from vehicles combusting leaded gasoline, as well as from industrial sources. With the phase-out of leaded gasoline, large manufacturing facilities are now the primary sources of lead emissions. Lead has the potential to cause gastrointestinal, central nervous system, kidney, and blood diseases upon prolonged exposure. Lead is also classified as a probable human carcinogen.

#### Other Pollutants

CARB also set standards for four additional pollutants: sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These pollutants are generally not considered pollutants of concern in the San Diego Air Basin because there are no major sources that would contribute to ambient levels within the basin.

#### Toxic Air Contaminants (TACs)

Section 39655 of the California Health and Safety Code defines a toxic air contaminant (TAC) as an air pollutant that "may cause or contribute to an increase in mortality or an increase in serious illness, or [that] may pose a present or potential hazard to human health." Section 39657(b) of the California Health and Safety Code defines TACs to include 189 substances that have been listed as federal hazardous air pollutants under 42 U.S. Code [U.S.C.] Section 7412.

TACs can cause various cancers, depending on the particular chemicals, their type, and the duration of exposure. Additionally, some TACs may cause other health effects over the short or long term. The 10 TACs posing the greatest health risk in California are acetaldehyde, benzene, 1-3 butadiene, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, perchlorethylene, and diesel particulate matter.

# Air Quality Designations

Three air quality designations can be given to an area for a criteria pollutant:

- Nonattainment: This designation applies when air quality standards have not been consistently achieved.
- Attainment: This designation applies when air quality standards have been achieved.
- Unclassified: This designation applies when insufficient monitoring data exists to determine a nonattainment or attainment designation.

Current NAAQS and CAAQS are summarized in Table 4.3-4, National and California Ambient Air Quality Standards. On April 15, 2004, USEPA formally replaced the 1979 one-hour ozone standard with a more stringent 8-hour standard as part of the Clean Air Rules of 2004. The San Diego Air Basin is currently designated as a nonattainment area for  $O_3$  and PM.

	Averaging	California <sup>1</sup>		Federal <sup>2</sup>		
Pollutant	Time	Standard <sup>3</sup>	Attainment Status	Standards <sup>4</sup>	Attainment Status	
$O_{\text{Torns}}(O_{1})$	1 Hour	0.09 ppm (180 μg/m <sup>3</sup> )	Nonattainment	NA	NA	
Ozone $(O_3)$	8 Hours	0.070 ppm (137 μg/m <sup>3</sup> )	Nonattainment	0.075 ppm (147 μg/m <sup>3</sup> )	Marginal Nonattainment	
	24 Hours	$50 \ \mu g/m^3$	Nonattainment	150 μg/m <sup>3</sup>	Attainment	
Particulate Matter (PM <sub>10</sub> )	Annual Arithmetic Mean	$20 \ \mu\text{g/m}^3$	Nonattainment	NA	Attainment	
Fine	24 Hours	No Separate S	State Standard	$35 \ \mu g/m^3$	Attainment	
Particulate Matter (PM <sub>2.5</sub> )	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	Nonattainment	12.0 µg/m <sup>3</sup>	Unclassified	
Carbon Monoxide (CO)	8 Hours	9.0 ppm (10 mg/m <sup>3</sup> )	Attainment	9 ppm (10 mg/m <sup>3</sup> )	Attainment	
	1 Hour	20 ppm (23 mg/m <sup>3</sup> )	Attainment	35 ppm (40 mg/m <sup>3</sup> )	Attainment	
Nitrogen Dioxide	Annual Arithmetic Mean	0.030 ppm (56 μg/m <sup>3</sup> )	NA	0.053 ppm (100 μg/m <sup>3</sup> )	Attainment	
$(NO_2)^5$	1 Hour	0.18 ppm (338 μg/m <sup>3</sup> )	Attainment	100 ppb	Attainment	
L and $(\mathbf{Ph})^{7,8}$	30 days average	$1.5 \ \mu g/m^3$	Attainment	N/A	NA	
Lead (F0)	Calendar Quarter	N/A	NA	$1.5 \ \mu g/m^3$	Attainment	
G 16	24 Hours	0.04 ppm (105 μg/m <sup>3</sup> )	Attainment	N/A	Attainment	
Dioxide $(SO_2)^6$	3 Hours	N/A	NA	0.5 ppm (1300 μg/m <sup>3</sup> )	Attainment	
(302)	1 Hour	0.25 ppm (655 μg/m <sup>3</sup> )	Attainment	75 ppb (196 μg/m <sup>3</sup> )	NA	

 Table 4.3-4: National and California Ambient Air Quality Standards

	California <sup>1</sup>		ornia <sup>1</sup>	<b>Federal</b> <sup>2</sup>	
Pollutant	Time	Standard <sup>3</sup>	Attainment Status	Standards <sup>4</sup>	Attainment Status
Visibility-	8 Hours (10	Extinction			
Reducing Particles <sup>9</sup>	a.m. to 6 p.m.,	coefficient = $0.23$	Unclassified		
ratucies	131)	KIII@<70% KII		N	No
Sulfates	24 Hour	$25 \ \mu g/m^3$	Attainment	Fed	leral
Hydrogen Sulfide	1 Hour	0.03 ppm (42 μg/m <sup>3</sup> )	Unclassified	Stan	dards
Vinyl Chloride <sup>7</sup>	24 Hour	0.01 ppm (26 μg/m <sup>3</sup> )	Unclassified		

#### Table 4.3-4 (cont.): National and California Ambient Air Quality Standards

Notes:  $\mu g/m^3 =$  micrograms per cubic meter; ppm = parts per million; km = kilometer(s); RH = relative humidity; PST = Pacific Standard Time; N/A = Not Applicable

<sup>1</sup>California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, and particulate matter ( $PM_{10}$ ,  $PM_{2.5}$ , and visibility-reducing particles) are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in 17 CCR 70200.

<sup>2</sup> National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For  $PM_{10}$ , the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150  $\mu$ g/m<sup>3</sup> is equal to or less than 1. For PM<sub>2.5</sub>, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

<sup>3</sup> Concentration is expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25°C and a reference pressure of 760 millimeters (mm) of mercury. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 mm of mercury; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

<sup>4</sup> National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant. The table presents primary standards with the exception of the 3-hour SO<sub>2</sub> standard, which is a secondary standard.

<sup>5</sup> To attain the 1-hour national standard, the 3-year average of the annual 98<sup>th</sup> percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards, the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

<sup>6</sup> On June 2, 2010, a new 1-hour SO<sub>2</sub> standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO<sub>2</sub> national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

<sup>7</sup> CARB has identified lead and vinyl chloride as "TACs" with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

<sup>8</sup> The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5  $\mu$ g/m<sup>3</sup> as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

<sup>6</sup> In 1989, CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standard, respectively.

Sources: CARB, 2013a; USEPA, 2013.

## Ambient Air Quality

Violations of NAAQS and CAAQS for  $O_3$  and PM have occurred historically in the Proposed Project area. The frequency of violations and current air quality conditions at the Kearny Mesa Monitoring Station are summarized in Table 4.3-5, Local Kearny Mesa Air Quality Levels. The Kearny Mesa Monitoring Station is the site nearest to the Proposed Project area, although the monitoring station is located in a more developed area that has multiple emissions sources compared to the Proposed Project transmission line route.

	Stand (Maximum Alloy	lard wable Amount)		Maximum	Number of Days
Pollutant	California	Federal Primary	Year <sup>1</sup>	Concentration <sup>2</sup>	State/Federal Standard Exceeded
1-hour Ozone	0.09 ppm	NA	2010 2011	0.073 ppm	0/NA 0/NA
$(O_3)^1$	for 1 hour	1 hour 20	2012	0.000	1/NA
8-hour Ozone $(O_3)^1$	0.070 ppm for 8 hours	0.075 ppm for 8 hours	2010 2011 2012	0.061 ppm 0.083 0.076	0/0 2/1 3/1
1-hour Carbon Monoxide (CO)	20 ppm for 1 hour	35 ppm for 1 hour	2010 2011 2012	2.6 ppm 2.8 2.8	0/0 0/0 0/0
8-hour Carbon Monoxide (CO)	9.0 ppm for 8 hours	9 ppm for 8 hour	2010 2011 2012	2.17 ppm 2.44 1.81	0/0 0/0 0/0
Nitrogen Dioxide (NO <sub>2</sub> )	0.18 ppm for 1 hour	0.100 ppm For 1 hour	2010 2011 2012	0.073 ppm 0.073 0.057	0/0 0/0 0/0
1-hour Sulfur Dioxide (SO <sub>2</sub> )	75 ppb for 1 hour	NA	2010 2011 2012	0.013 ppm 0.008 ppm NM	0/0 0/0 NM/NM
24-hour Sulfur Dioxide (SO <sub>2</sub> )	0.04 ppm for 24 hours	NA	2010 2011 2012	0.002 ppm 0.002 ppm NM	0/NA 0/NA NM/NA
Fine Particulate Matter $(PM_{2.5})^{1, 2}$	No Separate Standard	$35 \ \mu g/m^3$ for 24 hours	2010 2011 2012	18.7 μg/m <sup>3</sup> 29.9 20.1	NA/0 NA/0 NA/0
Particulate Matter (PM <sub>10</sub> ) <sup>1, 2</sup>	$\frac{50 \ \mu g/m^3}{\text{for 24 hours}}$	$150 \ \mu g/m^3$ for 24 hours	2010 2011 2012	33.0 µg/m <sup>3</sup> 47.0 35.0	0/0 0/0 0/0

Table 4.3-5:	Local Kear	nv Mesa A	Air Ouality	Levels
I uble ne et a	Locul Hour	my micou m	in Quanty	

Notes: ppm = parts per million;  $PM_{10}$  = particulate matter 10 microns in diameter or less; NM = not measured;  $\mu g/m^3$  = micrograms per cubic meter;  $PM_{2.5}$  = particulate matter 2.5 microns in diameter or less; NA = not applicable.

<sup>1</sup> Maximum concentration is measured over the same period as the California standards.

 $^{2}$  PM<sub>10</sub> and PM<sub>2.5</sub> exceedances are derived from the number of samples exceeded, not days.

Sources: CARB, 2013b; SDAPCD, 2013.

# 4.3.3.4 <u>Sensitive Receptors</u>

Sensitive populations are more susceptible to the effects of air pollution than the general population. According to the Air Toxics Hot Spots Program Risk Assessment Guidelines (OEHHA, 2003), sensitive receptors include "hospitals, daycare centers, schools, work-sites, and residences."

For the purpose of this analysis, sensitive receptors include medical patients and older adults, athletes/children at public parks/playgrounds, long-term care/assisted living facilities, churches, schools, child care centers/homes, and athletic fields.

Sensitive populations (i.e., sensitive receptors) in proximity to localized sources of toxics and CO are of particular concern. Land uses that may include sensitive receptors include residences, residences, schools, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. Table 4.3-6, Locations that May Include Sensitive Receptors, lists the distances and locations where sensitive receptors may be found and that lie within 1 mile of the areas that would be affected by construction and operation of the Proposed Project, including the transmission line route. The closest land uses that may contain sensitive receptors would be residential land uses, some parks, and the Kids Bay Learning Center located adjacent (approximately 72 feet) to the Proposed Project Segment B.

Туре	Name	Distance from Proposed Project Site (feet/miles) <sup>1</sup>	Direction from Proposed Project Site
Residential	Rancho Encantada, Scripps Miramar Ranch, Miramar Ranch North, Sabre Springs, Rancho Peñasquitos, Torrey Highlands, Pacific Highlands Ranch and Carmel Valley	varies	Residential communities listed surround the route
Schools	Kids Bay Learning Center	72 feet	North
	Mount Carmel High School	143 feet	West and Southwest
	The Innovations Academy	351 feet	South
	Cambridge School	528 feet	East
	Dingeman Elementary School	637 feet	South
	Torrey Hills School	950 feet	Southwest
	Ellen Browning Scripps Elementary School	970 feet	South
	Sage Canyon School	0.28 mile	Northwest
	Adobe Bluffs Elementary School	0.3 mile	Southeast
	Westview High School	0.4 mile	Southeast
	Black Mountain Middle School	0.4 mile	Southwest

 Table 4.3-6: Locations that May Include Sensitive Receptors
Туре	Name	Distance from Proposed Project Site (feet/miles) <sup>1</sup>	Direction from Proposed Project Site
	Black Mountain Middle School	0.4 mile	Southwest
	Ocean Air Elementary School	0.5 mile	North
	Sunset Hills Elementary	0.5 mile	Southwest
	Morning Creek Elementary	0.55 mile	East
Schools	Carmel Mountain Preschool	0.5 mile	Southwest
	Mesa Verde Middle School	0.65 mile	Southwest
	St. Gregory the Great Catholic School	0.65 mile	Northeast
	Creekside Elementary	0.7 mile	North Northeast
	Deer Canyon Elementary	0.8 mile	Southeast
	Mt Carmel Church of the Nazarene	50 feet	West
	Church of Jesus Christ of Latter Day Saints	150 feet	Southeast
	Taiwanese Lutheran Church	350 feet	East
	Carmel Mountain Church	450 feet	Southwest
Places of Worship	St Timothy's Episcopal Church	700 feet	East
,, orong	Saint Gregory the Great Catholic Church	0.4 mile	South Southwest
	New Hope Church of Peñasquitos	0.45 mile	Northeast
	Our Lady-Mt. Carmel Church	0.65 mile	Northeast
	Gethsemane Evangelical Church	0.9 mile	Northeast
	Black Mountain Open Space Park	0 mile	Intersects and mostly to the East and North
	Torrey Hills Dog Park	0 mile	Located within the ROW
Parks	Del Mar Mesa Preserve	0 mile	The Proposed Project is located within and traverses the Del Mar Mesa Preserve
	Los Peñasquitos Canyon Preserve	0 mile	The Proposed Project borders the NW boundary of the preserve
	Butterfly Gardens Mini Park	0 mile	Located within the ROW
	Hilltop Community Park	50 feet	West and Southwest

Table 4.3-6 (cont.): Location that May Include Sensitive Receptors

Туре	Name	Distance from Proposed Project Site (feet/miles) <sup>1</sup>	Direction from Proposed Project Site
	Black Mountain Ranch Community Park	139 feet	North Northwest
	Rancho Peñasquitos Skate Park	259 feet	East
	Spring Canyon Neighborhood Park	294 feet	South
	Torrey Hills Neighborhood Park	415 feet	West
	Torrey Del Mar Neighborhood Park	750 feet	South
	Cypress Canyon Neighborhood Park	850 feet	South
	Views West Park	0.3 mile	West southwest
	Scripps Ranch Community Park and Recreation Center	0.35 mile	South
	Sage Canyon Park	0.45 mile	Northwest
Parks	Sabre Springs Park	0.45 mile	East northeast
	Del Mar Mesa Neighborhood Park	0.45 mile	Northwest
	Canyon View Mini Park	0.50 mile	South
	Stonebridge Neighborhood Park	0.55 mile	East northeast
	Rancho Peñasquitos Dog Park	0.55 mile	East northeast
	Ridgewood Park	0.6 mile	West southwest
	South Creek Park	0.6 mile	North northeast
	Semillon Mini-Park	0.80 mile	South
	Peñasquitos Creek Neighborhood Park	0.95 mile	East
	Lakeview Neighborhood Park	1.0 mile	South

 Table 4.3-6 (cont.): Location that May Include Sensitive Receptors

Notes:

Sensitive receptors presented in this table are those within approximately 1-mile radius of the Proposed Project. <sup>1</sup> Distances are listed in feet for all land uses less than 0.25 mile from the Proposed Project and in miles for all land uses 0.25 mile or greater distance from the Proposed Project.

Sources: Google Earth; GIS Database.

#### 4.3.4 Potential Impacts

# 4.3.4.1 <u>Significance Criteria</u>

Standards of impact significance were derived from Appendix G of the *CEQA Guidelines*. Under these guidelines, the Proposed Project could have a potentially significant impact to air quality if it will:

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

Also under these guidelines, a project would have a potentially significant impact to GHGs if it will:

- a) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHG.

Pursuant to SDAPCD, a project would result in a significant air quality impact if it generates total emissions (direct and indirect) that exceed their adopted thresholds; refer to Table 4.3-7, SDAPCD Pollutant Thresholds. A project that results in a significant impact must incorporate sufficient measures to reduce its impact to a level that is not significant. A project that results in impacts that cannot be mitigated to a level that is not significant must incorporate all feasible measures. Note that the emission thresholds are given as a daily value and an annual value, so that a multi-phased project (such as a project with a construction phase and a separate operational phase) with phases shorter than one year can be compared to the daily value.

Pollutant	SDAPCD Thresholds (lbs/day) <sup>1</sup>	SDAPCD Thresholds (tons/year) <sup>1</sup>
Carbon Monoxide (CO)	550	100
Oxides of Sulfur (SO <sub>x</sub> )	250	40
Volatile Organic Compounds (VOCs)	75	40
Oxides of Nitrogen (NO <sub>x</sub> )	250	40
Particulate Matter (PM <sub>10</sub> )	100	15
Particulate Matter (PM <sub>2.5</sub> ) <sup>1</sup>	55	Not Applicable
Notes:		

<sup>1</sup> The SDAPCD does not have thresholds of significance for VOCs or PM<sub>2.5</sub>. As such, the VOC and PM<sub>2.5</sub> thresholds from SCAQMD were utilized.

Source: SDAPCD, 2012.

# 4.3.4.2 <u>Question 3a - Conflict with or obstruct implementation of the applicable air quality plan?</u>

#### **Construction – Less than Significant Impact**

A potentially significant impact on air quality would occur if the Proposed Project would conflict with or obstruct the implementation of the applicable air quality plan. Although the Proposed Project would contribute air emissions to the San Diego Air Basin, the primary concern is whether project-related impacts have been properly anticipated in the regional air quality planning process and reduced whenever feasible. Therefore, it is necessary to assess the Proposed Project's consistency with the RAQS. The Proposed Project's consistency with the RAQS is determined in terms of whether the Proposed Project exceeds the criteria pollutant threshold levels established by SDAPCD and whether the Proposed Project would result in growth that has been anticipated in a given subregion. As shown in Table 4.3-8, Proposed Project Construction Air Emissions, and as discussed under Question 4.3b, emissions do not exceed the applicable significance thresholds. The Proposed Project would not conflict with implementation of the RAQS or SIP. Therefore, impacts would be less than significant.

#### **Operation and Maintenance – No Impact**

As indicated in the long-term operational discussion under Operation and Management below including Table 4.3-9, Criteria Air Pollutant Emissions from Operation and Maintenance, the Proposed Project would not result in a significant increase in long-term air quality emissions. Additionally, the Proposed Project is not a trip-generating project such as a residential or commercial development. Once construction of the Proposed Project is complete, emissions would be relatively low, resulting only from scheduled maintenance. Therefore, the Proposed Project would not conflict with or obstruct implementation of the applicable air quality plan. No impact would occur.

#### 4.3.4.3 <u>Question 3b - Violate any air quality standard or contribute substantially to an</u> <u>existing or projected air quality violation?</u>

#### **Construction – Less than Significant Impact**

Constructing the Proposed Project is anticipated to occur over approximately 12 months. Table 3-11 in Section 3.5, Proposed Construction Schedule, presents the anticipated construction schedule and phases of construction for the Proposed Project. Construction of the Proposed Project is anticipated to begin in June 2016 and be completed by June 2017.

Construction equipment would include various types of trucks including line trucks, concrete trucks, haul trucks, and pickup trucks; on-site generators, air compressors, bore/drill rigs, bulldozers, backhoes, loaders, cabling equipment, and cranes.

Year 2016	Maximum Daily Construction Emissions, lbs/day						
Segment A	ROG	СО	NOx	SOx	<b>PM</b> <sub>10</sub>	PM <sub>2.5</sub>	
Construction Equipment	1.02	9.71	19.15	0.02	0.56	0.50	
Construction Truck Trips	0.20	0.88	2.96	0.01	0.22	0.11	
Worker Trips	1.91	29.73	2.55	0.07	1.62	0.68	
Helicopter	10.91	43.51	15.36	-	-	-	
Fugitive Dust				_	6 5 6	1.01	
(Unmitigated)		-	_	_	0.50	1.01	
Subtotal	14.05	83.83	40.02	0.10	8.96	2.30	
Segment B	ROG	CO	NOx	SOx	PM <sub>10</sub>	PM <sub>2.5</sub>	
Construction Equipment	8.47	51.15	68.18	0.09	3.82	3.40	
Construction Truck Trips	0.62	2.32	10.47	0.02	0.57	0.29	
Worker Trips	0.59	9.20	2.55	0.02	0.50	0.21	
Fugitive Dust	_	-	_	_	16.02	3.37	
(Unmitigated)					10.01		
Subtotal	9.68	62.67	81.20	0.13	20.91	7.26	
Sogmont C	POC	CO	NOv	SOv	DM	DM.	
Construction Equipment	3.16	17.88	24.61	0.03		1.03	
Construction Truck Trips	0.03	0.14	0.45	0.03	0.05	0.02	
Worker Trips	0.61	9.50	2 55	0.00	0.03	0.02	
Helicopter	0.01	2.50	2.55	0.02	0.54	0.44	
	10 91	43 51	15 36	_	_	-	
Fugitive Dust	10.91	43.51	15.36	-	-	-	
Fugitive Dust (Unmitigated)	- 10.91	43.51	- 15.36	-	- 0.41	0.06	
Fugitive Dust (Unmitigated) Subtotal	10.91 - <b>14.72</b>	43.51 - 71.03	15.36 - <b>42.97</b>	- - 0.06	- 0.41 <b>2.13</b>	0.06	
Fugitive Dust (Unmitigated) Subtotal	10.91 - 14.72	43.51 - <b>71.03</b>	15.36 - <b>42.97</b>	- - 0.06	- 0.41 <b>2.13</b>	0.06 1.33	
Fugitive Dust (Unmitigated) Subtotal Segment D	10.91 - 14.72 ROG	43.51 - 71.03 CO	15.36 - 42.97 NOx	- - 0.06 SOx	- 0.41 2.13 PM <sub>10</sub>	0.06 1.33 PM <sub>2.5</sub>	
Fugitive Dust (Unmitigated) Subtotal Segment D Construction Equipment	10.91 - 14.72 ROG 0.33	43.51 - 71.03 CO 2.11	15.36 - 42.97 NOx 3.69	- 0.06 SOx 0.00	- 0.41 <b>2.13</b> <b>PM<sub>10</sub></b> 0.14	- 0.06 <b>1.33</b> <b>PM<sub>2.5</sub></b> 0.12	
Fugitive Dust (Unmitigated) Subtotal Segment D Construction Equipment Construction Truck Trips	10.91 - 14.72 ROG 0.33 0.03	43.51 - 71.03 CO 2.11 0.12	15.36 - 42.97 NOx 3.69 0.31	- 0.06 SOx 0.00 0.00	- 0.41 <b>2.13</b> <b>PM<sub>10</sub></b> 0.14 0.04	0.06 <b>1.33</b> <b>PM<sub>2.5</sub></b> 0.12 0.02	
Fugitive Dust (Unmitigated) Subtotal Construction Equipment Construction Truck Trips Worker Trips	10.91 - 14.72 ROG 0.33 0.03 0.61	43.51 - 71.03 CO 2.11 0.12 9.50	15.36 - 42.97 NOx 3.69 0.31 2.55	- 0.06 SOx 0.00 0.00 0.02	- 0.41 <b>2.13</b> <b>PM<sub>10</sub></b> 0.14 0.04 0.52	- 0.06 <b>1.33</b> <b>PM<sub>2.5</sub></b> 0.12 0.02 0.22	
Fugitive Dust (Unmitigated) Subtotal Construction Equipment Construction Truck Trips Worker Trips Fugitive Dust	10.91         -         14.72         ROG         0.33         0.03         0.61	43.51 - 71.03 CO 2.11 0.12 9.50	15.36 - 42.97 NOx 3.69 0.31 2.55	- 0.06 SOx 0.00 0.00 0.02	- 0.41 2.13 PM <sub>10</sub> 0.14 0.04 0.52 22.71	- 0.06 <b>1.33</b> <b>PM<sub>2.5</sub></b> 0.12 0.02 0.22 4.77	
Fugitive Dust (Unmitigated) Subtotal Construction Equipment Construction Truck Trips Worker Trips Fugitive Dust (Unmitigated)	10.91 - 14.72 ROG 0.33 0.03 0.61 -	43.51 - 71.03 CO 2.11 0.12 9.50 -	15.36 - 42.97 NOx 3.69 0.31 2.55 -	- 0.06 SOx 0.00 0.00 0.02 -	- 0.41 2.13 PM <sub>10</sub> 0.14 0.04 0.52 22.71	- 0.06 <b>1.33</b> <b>PM<sub>2.5</sub></b> 0.12 0.02 0.22 4.77	
Fugitive Dust (Unmitigated) Subtotal Construction Equipment Construction Truck Trips Worker Trips Fugitive Dust (Unmitigated) Subtotal	10.91 - 14.72 ROG 0.33 0.03 0.61 - 0.97	43.51 - 71.03 CO 2.11 0.12 9.50 - 11.73	15.36 - 42.97 NOx 3.69 0.31 2.55 - 6.55	- 0.06 SOx 0.00 0.00 0.02 - 0.03	- 0.41 2.13 PM <sub>10</sub> 0.14 0.04 0.52 22.71 23.40	- 0.06 <b>1.33</b> <b>PM<sub>2.5</sub></b> 0.12 0.02 0.22 4.77 <b>5.13</b>	
Fugitive Dust (Unmitigated) Subtotal Construction Equipment Construction Truck Trips Worker Trips Fugitive Dust (Unmitigated) Subtotal Maximum Daily	10.91 - 14.72 ROG 0.33 0.03 0.61 - 0.97	43.51 - 71.03 CO 2.11 0.12 9.50 - 11.73	15.36 - 42.97 NOx 3.69 0.31 2.55 - 6.55	- 0.06 SOx 0.00 0.00 0.02 - 0.03	- 0.41 2.13 PM <sub>10</sub> 0.14 0.04 0.52 22.71 23.40	- 0.06 <b>1.33</b> <b>PM<sub>2.5</sub></b> 0.12 0.02 0.22 4.77 <b>5.13</b>	

 Table 4.3-8: Proposed Project Construction Air Emissions

Year 2017	Maximum Daily Construction Emissions, lbs/day						
Segment A	ROG	СО	NOx	SOx	<b>PM</b> <sub>10</sub>	PM <sub>2.5</sub>	
Construction Equipment	9.14	58.53	82.84	0.11	3.53	3.14	
Construction Truck Trips	0.24	1.15	3.64	0.01	0.31	0.22	
Worker Trips	0.30	4.60	0.39	0.01	0.25	0.10	
Helicopter	1.03	4.50	4.50				
Subtotal	10.71	68.77	91.38	0.13	4.09	3.46	
Segment B	ROG	CO	NOx	SOx	<b>PM</b> <sub>10</sub>	PM <sub>2.5</sub>	
Construction Equipment	1.88	18.74	30.33	0.04	0.89	0.79	
Construction Truck Trips	0.25	1.18	3.82	0.01	0.31	0.22	
Worker Trips	0.34	5.21	0.45	0.01	0.28	0.12	
Subtotal	2.47	25.14	34.59	0.06	1.48	1.12	
Segment D	ROG	CO	NOx	SOx	PM <sub>10</sub>	PM <sub>2.5</sub>	
Construction Equipment	3.81	22.50	37.67	0.05	1.27	1.13	
Construction Truck Trips	0.12	0.54	1.81	0.00	0.17	0.09	
Worker Trips	0.18	2.76	0.24	0.01	0.15	0.06	
Helicopter	10.91	43.51	15.36	-	-	-	
Subtotal	15.03	69.31	55.08	0.06	1.60	1.28	
Maximum Daily	<b>2</b> 0 <b>2</b> 0	1 (2 22	101.05			- 0-	
Emissions, 2017	28.20	163.22	181.05	0.24	7.17	5.87	

Table 4.3-6 (cont.): Froposed Froject Construction Air Emission	Table 4.3-8 (cont.):	<b>Proposed Project</b>	<b>Construction</b> Air	• Emissions
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Notes: ROG = reactive organic gases;  $NO_X$  = nitrogen oxides; CO = carbon monoxide;  $SO_X$  = sulfur oxides;  $PM_{10}$  = particulate matter, up to 10 microns;  $PM_{2.5}$  = particulate matter, up to 2.5 microns.

Refer to Appendix 4.3-A, Air Quality Construction Emissions, for assumptions used in this analysis, including quantified emissions reduction by control measures.

Controlled emissions calculated assuming standard fugitive dust control measures, including watering the site three times daily, as SDG&E's ordinary construction restrictions require.

Any soil export or import would be transported on or off the site with street-legal haul trucks. Portable cranes and heavy hauling trucks would be employed for the equipment delivery and installation. Crew trucks, boom trucks, and pick-up trucks would arrive and depart from the site daily for construction activities, testing and check-out, final power line tie-ins, and circuit cabling, until the transmission line is tested and energized. Light- or medium-duty helicopters could also be used for construction of the transmission line.

Construction of the Proposed Project may require multiple four- to ten-person crews and associated equipment. Environmental monitors, construction inspectors, and SDG&E personnel would also be present throughout construction. These crews may work simultaneously at various points along the Proposed Project route and affected substations, with up to approximately 100 people (including construction crews, monitors, and all other support staff) working at one time.

Daily transportation of construction workers is not expected to cause a significant effect to air quality, since approximately 100 workers would be working along the Proposed Project at the

peak of construction, and the number of trips generated would be minimal and constitute an insignificant percentage of current daily volumes in the area. SDG&E would encourage carpooling to reduce worker trips where feasible.

Construction of the Proposed Project would generate short-term air quality impacts. The short-term air quality impact analysis considers the following temporary impacts from the Proposed Project:

- Clearing, grading, excavating, and using heavy equipment or trucks would create large quantities of fugitive dust, and thus PM<sub>10</sub>;
- Heavy equipment required for grading and construction would generate and emit diesel exhaust; and
- Vehicles transporting commuting construction workers and trucks hauling equipment and materials would generate and emit exhaust.

Construction activities for the Proposed Project were modeled based on the schedule provided in Table 3-11. The Proposed Project was modeled using emission factors from the OFFROAD Model, Tier 2 and Tier 3 emission factors, and emission factors from the EMFAC2011 Model. It was assumed that construction equipment would include a mix of equipment that meets USEPA Tier 2 and USEPA Tier 3 emissions standards for off-road diesel engines.

Variables factored into estimating the total construction emissions include the level of activity, length of construction period, number of pieces and types of equipment in use, site characteristics, weather conditions, number of construction personnel, and the amount of materials transported on-site or off-site. Proposed Project construction emissions findings are presented in Table 4.3-8. Table 4.3-8 presents an evaluation of the maximum daily emissions associated with the simultaneous construction activities required for the Proposed Project. Maximum daily activities were identified based on a review of the construction schedule to identify simultaneous construction phases. A list of mobile and stationary construction equipment is included in the air quality modeling; refer to Appendix 4.3-A.

To reduce impacts to the extent possible, SDG&E would implement the following air emissions control measures during construction:

- All unpaved demolition and construction areas shall be wet/watered at least three times daily during construction, and temporary dust covers shall be used to reduce dust emissions and meet SDAPCD Rule 55 requirements.
- All construction areas shall be sufficiently dampened to control dust caused by construction and hauling, and at all times provide reasonable dust control of areas subject to windblown erosion.
- All loads shall be secured by covering or use of at least 2 feet of freeboard to avoid carryover.
- All materials transported off-site shall be either sufficiently watered or securely covered.

- All earthmoving or excavation activities shall be discontinued during periods of winds greater than 25 miles per hour (mph) to prevent excessive amounts of fugitive dust generation.
- All equipment shall be properly tuned and maintained in accordance with manufacturer specifications.
- All equipment will meet a minimum of USEPA Tier 2 emission standards. For the purpose of this evaluation, equipment would be comprised of a mix of 70 percent Tier 2 equipment and 30 percent Tier 3 equipment.
- An Idling Restrictions Program shall be implemented. SDG&E or its contractor shall maintain and operate construction equipment to minimize exhaust emissions. During construction, trucks and vehicles in loading and unloading queues shall have their engines turned off after 5 minutes when not in use. Construction activities shall be phased and scheduled to avoid emissions peaks, and equipment use shall be curtailed during second-stage smog alerts. This will also result in a significant decrease in impacts from Diesel Particulate Matter.
- To the extent possible, power shall be obtained from power or distribution poles (i.e., from the electrical grid) rather than through the use of large generators on-site.
- Low- and non-VOC containing coatings, sealants, adhesives, solvents, asphalt, and architectural coatings shall be used to reduce VOC emissions.
- All areas where construction vehicles are typically parked, staged, or operating shall be visibly posted with signs stating "No idling in excess of 5 minutes."
- Catalytic converters shall be installed on all heavy construction equipment, where feasible.
- Deliveries shall be scheduled during off-peak traffic periods to reduce trips during the most congested periods of the day, where feasible.
- Construction sites shall be posted with signs providing a contact number for complaints. All complaints shall be addressed in a timely and effective manner.
- All on-road heavy-duty vehicles, off-road construction vehicles, and portable equipment used in the project will comply with CARB's Airborne Diesel Air Toxic Measures (ATCMs).

#### Fugitive Dust Emissions

Construction activities are a source of fugitive dust  $(PM_{10})$  emissions that may have a substantial, although temporary, impact on local air quality. In addition, fugitive dust may be a nuisance to those living and working in the Proposed Project area. Fugitive dust emissions are associated with land clearing, excavation, cut and fill, and truck travel on unpaved roadways. Fugitive dust emissions vary substantially from day to day, depending on the level of activity, specific operations, and weather conditions. Fugitive dust from grading and construction is expected to be short-term and would cease when these activities are completed. Additionally, most of this fugitive dust material would be inert silicates, rather than the complex organic particulates released from combustion sources, which are more harmful to sensitive receptors.

Emissions calculations include fugitive dust emissions as part of the site grading and earthmoving activities (refer to Table 4.3-8). With implementation of SDG&E's standard fugitive dust control practices, the Proposed Project would not exceed SDAPCD standards for  $PM_{10}$  or  $PM_{2.5}$ . Measures include adherence to standard construction practices (watering inactive and perimeter areas, track-out requirements, and containing dirt and dust within the Proposed Project area) and compliance with SDAPCD's Fugitive Dust Rule 55.

#### Construction Equipment and Worker Vehicle Exhaust

Exhaust emissions from construction activities include emissions associated with transporting machinery and supplies to and from the Proposed Project area, emissions produced on-site as the equipment is used, and emissions from trucks transporting cut and fill material to and from the Proposed Project site. Emitted pollutants would include CO, ROG,  $NO_X$ ,  $PM_{10}$ , and  $PM_{2.5}$ . As presented in Table 4.3-8, the maximum daily uncontrolled emissions for each year of construction of the Proposed Project would not exceed SDAPCD standards for all pollutants in 2016 and 2017. It was assumed that construction equipment would be comprised of a fleet of which 70 percent meets USEPA Tier 2 emission standards and 30 percent meets USEPA Tier 3 emission standards. Using equipment that meets USEPA Tier 2 and Tier 3 emissions standards would reduce CO,  $NO_x$ , and particulate matter emissions.

# Toxic Air Contaminants (TACs)

California identifies diesel particulate matter as a TAC. Diesel particulate matter is emitted from on- and off-road vehicles that use diesel as fuel. Following identification of diesel particulate matter as a TAC in 1998, CARB worked on developing strategies and regulations aimed at reducing the emissions and associated risk from diesel particulate matter. The overall strategy for achieving these reductions is found in the Risk Reduction Plan to Reduce Particulate Matter from Diesel-Fueled Engines and Vehicles (CARB, 2000).

Construction activities would result in emissions of diesel particulate matter. Sources of diesel particulate matter at the site would include haul trucks, heavy construction equipment, and contractor vehicles. Potential health effects associated with exposure to diesel particulate matter are long-term effects and are evaluated on the basis of a lifetime of exposure (70 years). Because construction activities would move on a daily basis, and because activities would be short-term, emissions would not impact any sensitive receptors for any length of time.

CARB has adopted ATCMs applicable to off-road diesel equipment and portable diesel engines rated brake horsepower 50 and greater. The purpose of these ATCMs is to reduce emissions of particulate matter from engines subject to the rule. The ATCMs require diesel engines to comply with particulate matter emissions limitations on a fleet-averaged basis.

CARB has also adopted an ATCM that limits diesel-fueled commercial motor vehicle idling. The rule applies to motor vehicles with gross vehicular weight ratings greater than 10,000 pounds that are licensed for on-road use. The rule restricts vehicles from idling for more than 5 minutes at any location, with exceptions for idling that may be necessary in the operation of the vehicle.

All off-road diesel equipment, on-road heavy-duty diesel trucks, and portable diesel equipment used for the Proposed Project must meet the state's applicable ATCMs for control of diesel

particulate matter or  $NO_X$  in the exhaust (e.g., ATCMs for portable diesel engines, off-road vehicles, and heavy-duty on-road diesel trucks, and 5-minute diesel engine idling limits) that are in effect during implementation of the Proposed Project. The mobile fleets used in the Proposed Project are expected to be in full compliance with these ATCMs. This would ensure that pollutant emissions in diesel engine exhaust do not exceed applicable state or federal air quality standards.

#### **Operation and Maintenance – No Impact**

Emissions associated with operation and maintenance of the Proposed Project would include emissions from worker vehicles and trucks, which are a subset of the construction emissions. There may be an occasional need to use heavy equipment for operations and maintenance activities. Emissions would be similar to emissions associated with the mobilization activities. Emissions are presented in Table 4.3-9. As shown in Table 4.3-9, emissions are below the significance thresholds and, therefore, would not result in any impacts related to existing air quality standards. As a result, there would be no air quality impact associated with operation and maintenance of the Proposed Project.

<b></b>	Pollutant (pounds per day)						
Emissions Source	ROG	NOx	СО	SOx	<b>PM</b> <sub>10</sub>	<b>PM</b> <sub>2.5</sub>	
Daily Emissions	0.26	3.13	1.30	0.01	0.26	0.12	
SDAPCD Thresholds	75	250	550	250	100	55	
Is Threshold Exceeded?	No	No	No	No	No	No	

 Table 4.3-9:
 Criteria Air Pollutant Emissions from Operation and Maintenance

# 4.3.4.4 Question 3c - Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

#### **Construction – Less than Significant Impact**

As shown in Table 4.3-8, construction of the Proposed Project would lead to an increase in nonattainment criteria air pollutants. All appropriate and available Air Emissions Control Measures will be implemented. SDG&E's standard construction practices include minimizing vehicle idling time and controls for dust emissions to reduce construction impacts. As shown in Table 4.3-8, emissions would be below the daily significance thresholds for all pollutants. There is no other substantial evidence in the record demonstrating that the Proposed Project would have a cumulatively considerable impact. As a result, impacts due to nonattainment criteria pollutant increases would be less than significant.

#### **Operation & Maintenance – No Impact**

The emissions estimates presented in Table 4.3-9, represent emissions that are similar to the mobilization emissions during construction. These emissions are likely to be conservative and unlikely to be approached by the Proposed Project. As shown in Table 4.3-9, emissions are below the significance thresholds. As a result, there would be no impact related to existing air quality standards for operation and maintenance of the Proposed Project.

#### 4.3.4.5 <u>Question 3d - Expose sensitive receptors to substantial pollutant concentrations?</u>

#### **Construction – Less than Significant Impact**

The Proposed Project corridor is characterized by a mixture of single-family and multi-family residential, commercial, recreational, open space, and military uses, adjacent to the transmission line route. Although sensitive receptors were identified within a 1-mile radius of the Proposed Project's components, impacts to these receptors would be less than significant with implementation of SDG&E's standard construction practices. These practices include reducing idling time and implementing dust-control measures. Therefore, impacts to sensitive receptors during Proposed Project construction would be less than significant.

#### **Operation & Maintenance – No Impact**

Emissions resulting from operation and maintenance activities associated with the Proposed Project were calculated based on a subset of construction emissions (refer to Table 4.3-9). As indicated, operations and maintenance activities associated with the Proposed Project would not emit substantial amounts of pollutants that would result in exposure of sensitive receptors to substantial pollutant concentrations. Therefore, operations and maintenance activities would have no impact to sensitive receptors.

# 4.3.4.6 <u>Question 4.3e - Create objectionable odors affecting a substantial number of people?</u>

#### **Construction – Less than Significant Impact**

Construction activity for the Proposed Project may generate detectable odors from heavy-duty equipment exhaust. Potential odors generated during construction would be temporary and would be limited by the relatively small number of vehicles on-site, small graded area, and temporary nature of construction activity in any one location that would be near any sensitive receptors. Therefore, impacts would be less than significant.

#### **Operation & Maintenance – No Impact**

Operations and maintenance activities associated with the Proposed Project would not result in detectable odors. As such, no impact would occur.

#### 4.3.4.7 <u>Question 4.3f</u> - <u>Diminish an existing air quality rule or future compliance</u> requirement resulting in a significant increase in air pollutant(s)?

#### **Construction – Less than Significant Impact**

Construction emissions are temporary and short-term. Construction activities are subject to SDAPCD Rule 50, Visible Emissions; SDAPCD Rule 51, Nuisance; and SDAPCD Rule 55, Fugitive Dust Control. SDG&E's standard construction practices are consistent with the requirements of SDAPCD Rules 50, 51, and 55. Therefore, the construction of the Proposed Project would not diminish an existing air quality rule or future compliance requirement resulting in a significant increase in air pollutants. Impacts are less than significant.

# **Operation & Maintenance – No Impact**

SDG&E currently maintains and operates extensive existing transmission and power line facilities throughout the Proposed Project corridor, and the Proposed Project is the reconstruction of existing electric facilities within existing SDG&E ROW. Operations and maintenance activities for the overhead portions of the Proposed Project would potentially decrease slightly compared to baseline conditions due to the increased reliability of the new transmission and power line components. Any future construction activities related to potential maintenance would be evaluated under General Order 131-D and CEQA to assess whether further CPUC approval is required. Accordingly, the Proposed Project would not result in a significant increase in long-term air quality emissions. The Proposed Project would not diminish an existing air quality rule or future compliance and would have no impact regarding air quality rules and compliance requirements.

#### 4.3.4.8 <u>Question 4.3g - Generate greenhouse gas emissions, either directly or indirectly,</u> that may have a significant impact on the environment?

Impacts from GHG emissions are not direct impacts, but would have the potential for cumulative impacts on the environment. The Summary Report from the California Climate Change Center uses a range of emissions scenarios developed by the IPCC to project a series of potential warming ranges (i.e., temperature increases) that may occur in California during the 21<sup>st</sup> century. Three warming ranges were identified: Lower warming range (3.0 to 5.5 °F); medium warming range (5.5 to 8.0 °F); and higher warming range (8.0 to 10.5 °F). The report then presents an analysis of the future projected climate changes in California under each warming range scenario.

According to the report, substantial temperature increases would result in a variety of impacts to the people, economy, and environment of California. These impacts would result from a projected increase in extreme conditions, with the severity of the impacts depending upon actual future GHG emissions and associated warming. These impacts are described below.

# Public Health

Higher temperatures are expected to increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation are projected to increase by 25 to 35 percent under the lower warming range and 75 to 85 percent under the medium warming range. In addition, if global background ozone levels increase as is predicted in some scenarios, it may become impossible to meet local air quality standards.

An increase in wildfires could also occur, and the corresponding increase in the release of pollutants including particulate matter 2.5 microns or less in diameter ( $PM_{2.5}$ ) could further compromise air quality. The Summary Report indicates that large wildfires could become up to 55 percent more frequent if GHG emissions are not significantly reduced.

Potential health effects from global climate change may arise from temperature increases, climate-sensitive diseases, extreme events, and air quality. There may be direct temperature effects through increases in average temperature leading to more extreme heat waves and less extreme cold spells. Those living in warmer climates are likely to experience more stress and heat-related problems (e.g., heat rash and heat stroke). In addition, climate sensitive diseases

(such as malaria, dengue fever, yellow fever, and encephalitis) may increase, such as those spread by mosquitoes and other disease-carrying insects.

Climate change could affect the Proposed Project area because warmer climates may experience more of the problems identified above related to heat, should increases in average temperature in the Proposed Project area occur.

#### Water Resources

A vast network of reservoirs and aqueducts capture and transport water throughout California from Northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada mountain snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages. In addition, if temperatures continue to rise, more precipitation would fall as rain instead of snow, further reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. California's water resources are also at risk from rising sea levels. An influx of seawater would degrade California's estuaries, wetlands, and groundwater aquifers.

This global climate change impact is not likely to have a direct effect on the operation of the Proposed Project.

#### Agriculture

Increased GHGs and associated increases in temperature are expected to cause widespread changes to the agricultural industry, reducing the quantity and quality of agricultural products statewide. Significant reductions in available water supply to support agriculture would also impact production. Crop growth and development will change as will the intensity and frequency of pests and diseases. Agricultures impacts from global climate change are not anticipated to affect the Proposed Project directly because the Proposed Project site does not include agricultural uses.

#### Ecosystems/Habitats

Continued global warming will likely shift the ranges of existing invasive plants and weeds, thus alternating competition patterns with native plants. Range expansion is expected in many species while range contractions are less likely in rapidly evolving species with significant populations already established. Continued global warming is also likely to increase the populations of and types of pests and affect natural ecosystems and biological habitats throughout California. This effect of global climate change could affect current ecosystems and habitats at the Proposed Project site.

#### Wildland Fires

Global warming is expected to increase the risk of wildfire and alter the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55 percent, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout California. If

global climate change leads to increased risk of wildfires in Southern California, this impact could affect the Proposed Project area.

#### **Rising Sea Levels**

Rising sea levels, more intense coastal storms, and warmer water temperatures will increasingly threaten California's coastal regions. Under the high warming scenario, sea level is anticipated to rise 22 to 35 inches by 2100. A sea level risk of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten levees and inland water systems, and disrupt wetlands and natural habitats. In California, the coastal zone is defined as 1,000 yards inland from the mean high tide level. A portion of the project area is located within the Coastal Zone, and therefore could be affected by sea level rise. It is likely, however, that the majority of the Project would not be affected in the event of sea level rise.

#### **Construction – Less than Significant Impact**

The main source of GHG emissions associated with the Proposed Project would be fossil fuel combustion during construction. GHG emissions for construction were calculated using the same approach as criteria pollutant emissions for overall construction emissions. Estimated GHGs emissions are summarized in Table 4.3-10, Greenhouse Gas Construction Emissions. Emission calculations are provided in Appendix 4.3-A, CalEEMod Model Outputs.

	GHG Emissions (metric tons[MT])				
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e	
Total GHG Emissions	1497.77	0.12	0.72	1,723.49	
Global Warming Potential	1	21	310	-	
CO <sub>2</sub> Equivalent	1,498	3	223	1,724	
CO <sub>2</sub> Equivalent Total	1,724				

 Table 4.3-10:
 Greenhouse Gas Construction Emissions

Both the South Coast Air Quality Management District (SCAQMD) and the County of San Diego have adopted significance thresholds for industrial projects of 10,000 MT of CO<sub>2</sub>e annual emissions. The total construction CO<sub>2</sub>e emissions of 1,724 metric tons are below the County of San Diego's and SCAQMD's significance threshold of 10,000 MT of CO<sub>2</sub>e annually for industrial projects. This level of GHG emissions would be less than significant.

#### **Operation & Maintenance – Less than Significant Impact**

As discussed under criteria pollutant impacts, operation and maintenance activities would include regular inspection of the transmission line and periodic maintenance activities. These activities would generate a minor amount of GHG emissions from vehicles and/or equipment used to inspect and maintain the facilities. GHG emissions associated with operation and maintenance would be well below the significance thresholds.

#### 4.3.4.9 <u>Question 3h - Conflict with an applicable plan, policy or regulation adopted for</u> <u>the purpose of reducing the emissions of greenhouse gases?</u>

#### **Construction – No Impact**

The Proposed Project's GHG emissions from construction are below the County of San Diego's and SCAQMD's significance threshold when amortized over a 30-year period, as recommended by the County of San Diego and SCAQMD. Equipment and vehicles supporting construction of the Proposed Project would comply with the requirements implemented by CARB to reduce GHG emissions and would be consistent with AB 32's goals. Accordingly, there would be no impact associated with construction.

#### **Operation & Maintenance – No Impact**

By virtue of the Proposed Project's compliance with applicable rules and regulations and its similarity to existing operation and maintenance requirements, the Proposed Project is consistent with AB 32's goals. Emissions would not differ from emissions levels for operations and maintenance under existing rules and regulations. Also, transmission circuit breakers are the only equipment for the Proposed Project that contain SF<sub>6</sub>. SDG&E has ongoing standard internal programs and practices that ensure compliance with CARB's SF<sub>6</sub> regulations and maximum emissions rate. Those programs and practices would not change as a result of the Proposed Project. Accordingly, no impact would occur. By complying with applicable rules and regulations and following SDG&E's design and operational features to decrease GHG emissions, the Proposed Project would not conflict with any applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions. There would be no impact.

#### 4.3.5 **Project Design Features and Ordinary Construction/Operating Restrictions**

With implementation of the ordinary construction restrictions, as outlined within Section 3.8, potential impacts related to air quality and GHGs would be reduced to the extent feasible.

#### 4.3.6 Applicant Proposed Measures

Because air quality and GHG impacts would be less than significant, no APMs are required or proposed.

#### 4.3.7 Detailed Discussion of Significant Impacts

Based on the above analyses, no significant impacts have been identified for the Proposed Project.

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Appendix 4.4-A Biological Technical Report

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# 4.4 BIOLOGICAL RESOURCES

Would	the Project:	Potentially Significant Impact	Potentially Significant Unless APMs Incorporated	Less than significant Impact	No Impact
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?			V	
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 US Fish and Wildlife Service?			V	
с.	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			V	
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?			V	
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				V
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?				

#### 4.4.1 Introduction

This section of the PEA describes the biological resources in the vicinity of the Proposed Project, and identifies potential impacts to habitats and species that could result from the construction, operation, and maintenance of the Proposed Project. Additionally, potential impacts to sensitive vegetation communities, jurisdictional wetlands and waters, and migratory wildlife corridors are addressed.

The Proposed Project would incorporate the standard set of operational protocols and mitigation set forth in *SDG&E's Subregional NCCP*. The *SDG&E Subregional NCCP* is an HCP permitted under Section 10A of the Federal ESA for incidental take and a NCCP permitted under a

management authorization pursuant to Section 2835 of the California Fish and Game Code. SDG&E entered into an Implementation Agreement with the USFWS and CDFW, respectively, for the management and conservation of multiple species and their associated habitats as established according to the federal and state endangered species acts and the state's NCCP Act. Through the avoidance of resources, application of protective measures and mitigation in the *SDG&E Subregional NCCP*, and habitat enhancement, Proposed Project impacts to biological resources would be less than significant.

# 4.4.2 Methodology

# 4.4.2.1 <u>Literature Review</u>

A review of existing literature and historical databases was conducted to determine the existing biological conditions and general occurrence of sensitive biological resources within the vicinity of the Proposed Project Survey Area. Background research to determine the existing biological conditions included a review of current federal, state, and local regulations, historical and current aerial photographs, U.S. Geological Survey (USGS) topographic maps, USDA NRCS soil survey maps, data from other projects occurring within the vicinity of the Proposed Project Survey Area, and other reputable online resources that provide data for the region.

Historical occurrence data for sensitive habitats as well as special status plant and wildlife species that have been reported from the vicinity of the Proposed Project Survey Area were evaluated. A review of data from the most recent version of the CDFW *California Natural Diversity Database* (CNDDB) was performed to identify known sensitive biological resources within a 5-mile buffer of the Proposed Project alignment. The CNDDB provides an inventory of reported vegetation communities, plant species, and wildlife species that are considered sensitive by state and federal resource agencies, academic institutions, and other conservation groups. In addition to the CNDDB, data obtained from the USFWS critical habitat inventory, California Native Plant Society (CNPS) *Electronic Inventory of Rare and Endangered Vascular Plants of California*, surveys conducted for SDG&E projects, and other databases (e.g., SanGIS, San Diego Natural History Museum [SDNHM]), were also evaluated to better understand the biological conditions within and adjacent to the Proposed Project area.

# 4.4.2.2 <u>Field Surveys</u>

Field surveys were conducted within the Proposed Project Survey Area, which included a 500foot survey corridor along the entire Proposed Project alignment (see Appendix 4.4-A: Appendix A).

# Vegetation Mapping

Vegetation communities and land cover types within the Proposed Project Survey Area were delineated on color aerial imagery at approximately 1 inch equals 300-foot scale. Biologists mapped the vegetation by walking through the Proposed Project Survey Area, documenting the dominant plant species, and delineating the vegetation communities and land cover types by hand onto the aerial imagery. In areas that were not accessible because of steep terrain and/or dense vegetation, biologists used binoculars to assess dominant species and draw vegetation polygons from the adjacent slope or from another good vantage point. Digital photographs of

representative areas were taken during the mapping survey for reference. After review of each map for consistency or errors, the vegetation community and land cover type boundaries were digitized in the office by using GIS.

Vegetation communities were classified according to those described within the *SDG&E Subregional NCCP*. NCCP vegetation community classifications are consistent with, or similar to, the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland, 1986). For the Proposed Project, vegetation communities within the Proposed Project Survey Area were identified according to the estimated percent cover of the combination of dominant plant species observed. Vegetation community classifications are based on a dominant species within the mapped unit relative to the list of dominant species for a given Holland vegetation community are present and intermixed with the dominant vegetation community. When necessary, modifiers are added to certain vegetation classifications to describe a single species that dominates the vegetation class. For example, when a chaparral community is dominated by chamise (*Adenostoma fasciculatum*) rather than the mix of different shrubs, the community is identified as chamise chaparral rather than southern mixed chaparral.

Additionally, certain natural vegetation communities are given a modifier when they have evidence of disturbance, such as clearing, agricultural use, off-road vehicle damage, or illegal trash disposal. These areas are generally characterized by a highly reduced and fragmented vegetative cover and may support a high percentage of nonnative grasses or ruderal species, particularly in the understory. This is notated on the vegetation maps as a "D" placed after the name or acronym of the habitat.

#### Flora

During the vegetation mapping and focused special-status plant surveys (discussed below) conducted within the Proposed Project Survey Area, biologists noted all common and special-status plant species observed within the Proposed Project Survey Area. Plant names follow Rebman and Simpson (2006), but updated names are included where applicable. Additional plant references included *The Jepson Manual: Vascular Plants of California, Second Edition* (Baldwin et al, 2012) and the Consortium of California Herbarium data. Methods used for the focused special-status plant species surveys are described later in this section.

#### Fauna

During the various field efforts conducted within the Proposed Project Survey Area, biologists noted all common and special-status wildlife species observed directly or detected indirectly through sign, including – but not limited to – scat, tracks, burrows, and vocalizations. Methods used for the focused, protocol-level coastal California gnatcatcher (*Polioptila californica californica*) surveys are described later in this section.

#### **Special-Status Species**

Prior to initiating field surveys, background research and results from the database searches were used to make an initial assessment of the special-status species that have a potential to occur within or adjacent to the Proposed Project Survey Area. Based on the historical data available for the region, a list of special-status species that are known to occur or have a potential to occur within or adjacent to the Proposed Project Survey Area was compiled. In addition, special-status species that had no historical occurrences based on the databases searches but that are known from the region were also included in the special-status species list.

#### Special-Status Species Habitat Assessment

A focused habitat assessment was conducted to better refine the probabilities for special-status plant and wildlife species to occur within or adjacent to the Proposed Project Survey Area. Biologists performed an evaluation of the existing vegetation communities to determine if the Proposed Project Survey Area provides potential habitat for the special-status species that have a potential to occur within the region. The data obtained from the habitat assessment was used to reevaluate the special-status species list and determine which species have a potential to occur within or adjacent to the Proposed Project Survey Area. Further information about the special-status species habitat assessment is provided in the focused special-status plant species memo (see Appendix 4.4-A: Appendix E) and the coastal California gnatcatcher survey summary report (see Appendix 4.4-A: Appendix G).

# Special-Status Plant Surveys

Prior to the start of the focused surveys, a list of the special-status plant species that have a potential to occur within or adjacent to the survey area was developed from a query of the CDFW's CNDDB, the SanGIS database, data provided by SDG&E from other projects, research using SDNHM plant distribution mapping and voucher specimen lists, and local knowledge of special-status plant species likely to occur in the area. The CNDDB query included a review of special-status plant species reported within 1, 3, and 5 miles of the Proposed Project alignment.

Based on the results of the database search as well as the focused habitat assessment described above, special-status plant species were carefully considered for their potential to occur within or adjacent to the Proposed Project Survey Area, and a list of target species was developed for the Proposed Project. Species that were on the CNDDB list but were recently "considered but rejected" as a special-status species by CNPS because they are more common than previously thought or because their taxonomy has changed were not included because they do not meet the criteria to be classified as a special-status species.

Surveys were conducted by walking meandering transects throughout the Proposed Project Survey Area. For each special-status plant observation, surveyors recorded the approximate location using a hand-held GPS device that recorded the plant's location and the elevation above mean sea level (amsl) and by hand onto a high resolution aerial image of the Proposed Project Survey Area. Where vegetation was very dense on steep slopes, such as in scrub oak chaparral, documentation of some species was accomplished through the use of binoculars and marking the species' location on a field map that was later digitized for incorporation into the GIS database. In addition to recording special-status plant species observed during this survey, biologists assessed the Proposed Project Survey Area to refine the probability for the other target specialstatus plant species that will be surveyed for during spring/summer 2014. Biologists also recorded incidental detections of special-status wildlife species during these focused specialstatus plant surveys.

# Focused Coastal California Gnatcatcher Surveys

Focused surveys for coastal California gnatcatcher were conducted by USFWS-permitted biologists in accordance with the current USFWS survey protocol for coastal California gnatcatcher surveys within NCCP areas, titled *Coastal California Gnatcatcher (Polioptila californica californica) Presence/Absence Survey Guidelines* and dated February 28, 1997 (USFWS, 1997). Six surveys were conducted, with a USFWS-approved modification to space the surveys a minimum of 10 days apart to meet schedule constraints for the Proposed Project.

All surveys were conducted between approximately 6:00am and 12:00pm and avoided periods of adverse weather conditions (e.g., excessively hot or cold temperatures, high winds, steady rain, dense fog, other inclement weather conditions) that would impede detection of the coastal California gnatcatcher. Surveyors slowly walked throughout the suitable habitat identified within the Proposed Project Survey Area during the habitat assessment and used visual and auditory cues to detect the coastal California gnatcatcher. Various routes were utilized to conduct an unbiased survey of the potentially suitable habitat. Pre-recorded coastal California gnatcatcher vocalization playbacks were only used to elicit initial calls from coastal California gnatcatcher and were not used frequently or to elicit further behaviors. Pre-recorded vocalizations were played for a period of 5 to 15 seconds and were generally repeated approximately every 100 feet within the surveyed habitat. No more than approximately 80 acres of suitable habitat were surveyed per day per USFWS-permitted biologist.

For each coastal California gnatcatcher detection, surveyors recorded the approximate location using a hand-held GPS device and by hand onto a high resolution aerial image of the Proposed Project Survey Area. Surveyors also estimated the age, sex, and number of individuals detected and included notes about each observation. In addition, surveyors recorded other wildlife species observed directly or detected indirectly by sign, including scat, tracks, calls, and other evidence.

#### **Critical Habitat**

Under the ESA, USFWS designates certain areas as "critical habitat" if they determine that these geographic areas are essential for the conservation and/or recovery of a federally listed threatened or endangered species, whether or not the species currently occupies the area. Critical habitat areas often require special management and protection to assure they will remain suitable for the federally listed species for which they have been designated. While federally listed species are protected by the ESA whether or not they are in an area that is designated as critical habitat, projects proposed within or adjacent to "critical habitat" must demonstrate that implementation of the project would not destroy or significantly impact the functions and values of the critical habitat.

Existing critical habitat data layers and a 5-mile buffer of the Proposed Project alignment were overlain onto an aerial and graphic of the Proposed Project Survey Area to determine if the Proposed Project has the potential to impact any areas designated as critical habitat.

#### Jurisdictional Delineation Survey

Environmental Intelligence, LLC (EI) conducted a focused jurisdictional delineation for the Proposed Project. The methods used to perform the jurisdictional delineation are presented below. For additional details, please refer to Appendix 4.4-A: Appendix H (Jurisdictional Delineation of San Diego Gas & Electric's Sycamore to Peñasquitos 230 Kilovolt Transmission Line Improvements Project).

#### Literature Review

Prior to the field delineation, EI analyzed numerous available data sets to determine the locations of potential jurisdictional areas. These data included:

- A 1 inch equals 2,400 feet color aerial photograph of the Proposed Project alignment;
- National Wetlands Inventory (NWI) data;
- USDA NRCS soil mapping data;
- Historic and recent aerial photographs; and
- USGS topographic maps.

This information informed the field surveys, described below.

#### Field Survey

The delineation field work involved walking the entire Proposed Project Survey Area, focusing on (but not limited to) potential jurisdictional areas identified during the literature search, and physically identifying any hydrologic, vegetative, and geomorphic characteristics to delineate potentially jurisdictional waters and wetlands. The field survey was conducted according to the technical guidelines provided in the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0; USACE, 2008) to identify and delineate wetlands that may be subject to regulatory jurisdiction under Section 404 and 401 of the Clean Water Act of 1972 (CWA). "Waters of the State" were identified pursuant to criteria outlined in Section 1600 of the CFG Code, including the presence of a defined bed and bank and any associated riparian vegetation. For each feature, total stream length and the width of the "top of bank" were measured. For streams with riparian vegetation, this width was extended to the outer drip-line of this vegetation. Drainages that appeared to meet the criteria for "waters of the United States (US)." or "waters of the State" were considered potentially jurisdictional; however, any determination is subject to verification by the regulatory agencies. For areas under the regulation of the CCC, wetlands were also delineated using the one parameter definition, as defined in the CCR Title 14.

Vernal pools are ephemeral basins that fill with rain water in the winter and spring but are dry at other times of the year and often support endangered species, such as San Diego button-celery (*Eryngium aristulatum*) and fairy shrimp. Under certain circumstances, vernal pools can be considered jurisdictional waters by Federal and State resource agencies. Surveys were not completed in the appropriate season to determine potential vernal pool ponding extent; however,

potential vernal pools encountered were delineated at the watershed level based on evidence of ponding and/or depressional topography within soil types known to produce vernal pools.

#### **Impact Determination**

Potential impacts associated with implementation of the Proposed Project were evaluated by considering all Proposed Project activities and their potential to impact biological resources within the Proposed Project Survey Area. Potential impacts were classified as either permanent or temporary and further classified as direct, indirect, and/or cumulative. Definitions for the different types of impacts are discussed in more detail later in this document, in Section 4.4.4: Potential Impacts.

#### 4.4.3 Existing Conditions

#### 4.4.3.1 <u>Regulatory Setting</u>

#### Federal

Several federal regulations apply to the proposed project, including:

- Federal Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.);
- Clean Water Act of 1972 (33 USC 1251 *et seq.*);
- Coastal Zone Management Act of 1972 (16 USC 1451 through 1464, Chapter 33);
- Migratory Bird Treaty Act of 1918 (16 USC 703 through 711); and
- Bald and Golden Eagle Protection Act (16 USC 668).

#### Federal Endangered Species Act of 1973 (16 United States Code [USC] 1531 et seq.).

The Federal ESA of 1973 was designed to protect critically imperiled plant and wildlife species from extinction by eliminating or reducing the threats to these species and by aiding in the recovery and/or maintenance of the species populations. The ESA designates species that are endangered or threatened as well as species that are candidates for listing and protects these species from unauthorized "take". For plants, the ESA prohibits removing, possessing, maliciously damaging, or destroying any endangered plant on federal land and/or removing, cutting, digging-up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law (16 U.S.C. 1538). For wildlife, "take" is defined as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." The ESA also designates critical habitat for federally listed species and protects these species from interference with vital breeding and behavioral activities and from critical habitat degradation.

The ESA is administered by the USFWS for freshwater fish and terrestrial wildlife and the National Oceanic and Atmospheric Administration (NOAA) for marine and anadromous species. A person, defined as an "individual, corporation, partnership, trust, association, or any other private entity; or any officer, employee, agent, department, or instrumentality of the Federal Government, of any State, municipality, or political subdivision of a State, or of any foreign

government; any State, municipality, or political subdivision of a State; or any other entity subject to the jurisdiction of the United States", is prohibited from taking a listed species until an appropriate permit pursuant to Section 7, 9, and/or 10 of the ESA has been obtained from USFWS and/or NOAA.

#### Clean Water Act of 1972 (33 USC 1251 et seq.)

The U.S. Environmental Protection Agency (EPA) administers the CWA, which regulates potential impacts to wetlands, Waters of the U.S., and Waters of the State resulting from discharge of dredged materials by implementing pollution control measures to maintain water quality in these waterways. Some sections of the CWA, including Sections 404 and 401, are administered by other agencies.

The U.S. Army Corps of Engineers (USACE) administers Section 404 of the CWA, which regulates the discharge of dredged or fill material into navigable waters, including both wetlands and other Waters of the U.S. The discharge of dredged or fill material is typically associated with a variety of development projects, agricultural activities, and water resource projects. The USACE is responsible for issuing general and individual permits and for making jurisdictional determinations.

The SWRCB, in conjunction with the nine California Regional Water Quality Control Boards (RWQCBs), administers Section 401 of the CWA, which requires a State Water Quality Certification or waiver for any activity requiring a Section 404 permit. The State Water Quality Certification ensures the activity will not violate any established State water quality standards. The SWRCB and/or RWQCB are responsible for issuing permits pursuant to the Section 401 Water Quality Certification Program.

#### Coastal Zone Management Act of 1972 (16 USC 1451 through 1464, Chapter 33)

The Coastal Zone Management Act of 1972 (CZMA) is administered by NOAA's Office of Ocean and Resource Management and was established as a national policy to preserve, protect, develop, and – where possible – enhance or restore the coastal zone in the U.S. The federal consistency provision, Section 307 of the CZMA, encourages states to join the Coastal Zone Management Program (CZMP), which takes a comprehensive approach to coastal resource management by balancing the competing and/or conflicting demands of coastal resource use, economic development, and conservation and allows states to issue the applicable permits. California has a federally approved CZMP, and the CZMA is administered by the CCC. Therefore, the CZMP and permit requirements are discussed further in CCA and CZMP, below.

# Migratory Bird Treaty Act of 1918 (16 USC 703 through 711)

The Migratory Bird Treaty Act of 1918 (MBTA) implements various conventions and treaties between the U.S. and Canada, Mexico, Japan, and Russia for the protection of over 800 migratory bird species that spend all or a portion of their life cycle in the U.S. Under the MBTA, it is unlawful to "pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird...or any part, nest, or egg of any such bird" (16 USC 703).

The MBTA is administered by USFWS and is intended to eliminate a commercial market for birds and/or their parts. Take permits for MBTA species are rarely issued, except for specific actions to aid recovery of a species; however, USFWS establishes hunting seasons for species for which there is a long tradition of hunting, as long as hunting will not adversely impact their population status or long-term conservation. While the MBTA includes approximately 170 species of game birds, hunting is typically authorized for fewer than 60 of these species each year.

#### Bald and Golden Eagle Protection Act (16 USC 668)

The Bald and Golden Eagle Protection Act (BGEPA) 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 any golden eagle], alive or dead, or any part, nest, or egg thereof" without prior approval are subject to criminal penalties.

#### State

Several state regulations apply to the proposed project, including:

- CEQA (PRC 21000 *et seq*);
- CESA (Fish and Game Code 2050 *et seq.*);
- California Fish and Game Code;
- California Native Plant Protection Act (NPPA);
- California Coastal Act (CCA) and Environmentally Sensitive Habitat Areas;
- CZMA;
- California Porter-Cologne Water Quality Control Act; and
- California NCCP Program.

#### California Environmental Quality Act (Public Resources Code 21000 et seq)

The CEQA was passed in 1970 as the state counterpart to the NEPA to institute a statewide policy of environmental protection. CEQA applies to projects undertaken, funded, or requiring the issuance of a permit by a state or local public agency and requires the project proponent to identify significant environmental impacts as well as avoidance, minimization, and/or mitigation measures to reduce these impacts to below a level of significance.

The CDFW has jurisdiction over the conservation, protection, and management of native habitats, plant species, and wildlife species found within California and is responsible for maintaining sustainable populations of these habitats and species. The CDFW provides biological expertise to review and comment on CEQA documents, including the impacts resulting from proposed project activities and the proposed avoidance, minimization, and mitigation measures associated with these impacts. The CDFW may play various roles in the CEQA process; the CDFW is always a Trustee Agency and may also be a Lead Agency or a Responsible Agency.

The CDFW is one of four trustee agencies, which also include the State Lands Commission, the Department of Parks and Recreation, and the University of California. As a Trustee Agency, the CDFW has jurisdiction over certain resources held in trust for the people of California and is typically required to be notified of CEQA documents that are relevant to its jurisdiction, such as documents for projects involving fish and wildlife resources. As a Trustee Agency, the CDFW cannot approve or disapprove a project; however, the lead and responsible agencies must consult with the CDFW, and the CDFW reviews the CEQA document(s) and provides recommendations regarding the resources under their jurisdiction (Fish and Game Code Section 1802).

The CDFW is also sometimes designated as a Responsible Agency, which is an agency, other than the Lead Agency, that has the legal responsibility for implementing and approving a proposed project. The CDFW is designated as the Responsible Agency when the Lead Agency requires a 1600 Streambed Alteration Agreement or a 2081(b) CESA Incidental Take Permit for a project. As a Responsible Agency, CDFW actively participates in the CEQA process by reviewing the Lead Agency's CEQA document and using that document to make decisions about the proposed project, to prepare and issue its own findings regarding the project (CEQA Guidelines, Sections 15096 and 15381), and to determine whether or not to issue an incidental take permit.

For the Proposed Project, the CPUC is the Lead Agency, and CDFW would serve as a Responsible Agency that would review the environmental documentation for the Proposed Project to assure its consistency with the *SDG&E Subregional NCCP*, which is discussed in detail in *SDG&E Natural Community Conservation Plan*, below.

#### California Endangered Species Act (Fish and Game Code 2050 et seq)

The CESA parallels the ESA and protects and/or preserves native plant and wildlife species and their habitats, especially those that are threatened with extinction and those that are experiencing significant decline that may lead to a threatened or endangered designation, within the state of California. CESA designates special-status species that are protected from unauthorized "take", which is defined as to "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill."

CESA is administered by the CDFW. A state lead agency is required to consult with the CDFW to ensure that a proposed project is not likely to jeopardize the continued existence of a special-status species or result in the destruction or adverse modification of essential habitat for a species. CESA allows for the issuance of incidental take permits for lawful development projects and emphasizes the benefits of early consultation between the lead agency and CDFW to

avoid potential impacts to special-status species and to develop appropriate mitigation measures to reduce impacts to and avoid loss of a special-status species.

#### California Fish and Game Code

Several sections of the California Fish and Game Code, which is administered by the CDFW, may apply to the proposed project. These include Section 2081; Sections 1600 through 1616; Sections 1900, et seq.; Sections 2511, 4700, 5050, and 5515; Sections 3503, 3503.5, and 3513; and Title 14, California Code of Regulations, Section 670.2 and 670.6. Each of these sections is discussed in detail below.

#### Section 2081

Section 2081 of the California Fish and Game Code allows for the issuance of an incidental take permit from CDFW for projects that have the potential to take a special-status species, including a state-listed species, as long as the impacts are minimized and fully mitigated and will not jeopardize the continued existence of a state-listed species. The measures required to minimize and fully mitigate impacts must be roughly proportional to the extent of the proposed impact to the species and must be capable of successful implementation while maintaining the applicant's objectives to the greatest extent feasible. The applicant must show that adequate funding is available to implement the required avoidance and mitigation measures and monitor the effectiveness of the mitigation measures.

#### Sections 2511, 4700, 5050, and 5515

Sections 2511, 4700, 5050, and 5515 of the California Fish and Game Code provide guidelines to protect wildlife species that are designated as "fully protected" by the CDFW. Before the implementation of CESA and ESA, the State of California designated species as "fully protected" to provide protection for species that were rare or threatened with possible extinction/extirpation. Many of these "fully protected" species have since been listed under CESA as threatened or endangered species. While most "fully protected" species cannot be harmed, taken, or possessed at any time because the designation as "fully protected" provides the same level of protection as a listed species, CDFW may permit the incidental take of "fully protected" species pursuant to a NCCP plan approved by CDFW, as long as the plan's conservation and management guidelines adequately protected these species.

#### Sections 1600 through 1616

CDFW is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. To meet this responsibility, Fish and Game Code Sections 1600 through 1616 comprise the Lake and Streambed Alternation Program. Specifically, Section 1602 requires an entity, which is any person, state, or local governmental agency, or public utility to notify CDFW before beginning any activity that will substantially modify a river, stream, or lake. Notification is required for an activity that will: 1) Substantially divert or obstruct the natural flow of; 2) substantially change or use any material from; or 3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement into the bed, channel, or bank of any river, stream, or lake. The notification requirement applies to any work undertaken within or adjacent to a lake, river, or stream that flows at least intermittently through

a bank or channel, including watercourses with a subsurface flow (e.g., ephemeral streams, desert washes) and flood plains.

If a proposed activity requires CDFW notification, a completed notification form and corresponding fee is submitted to the regional CDFW office. If CDFW determines the proposed activity may substantially adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement will be prepared. The Agreement includes reasonable conditions necessary to protect resources and must comply with CEQA.

#### Other Sections

Additional sections of the California Fish and Game Code may apply to the proposed project, including, but not limited to:

- Sections 1900 through 1913 provide guidelines to preserve, protect, and enhance endangered or rare native plants within California;
- Sections 3503, 3503.5, and 3513 state that it is unlawful to take, possess, or destroy the nest or eggs of any bird species except otherwise allowed by the or any regulation made pursuant to the California Fish and Game Code;
- Section 3503.5 provides protection specifically in the orders Falconiformes (hawks, eagles, and flacons) and Strigiformes (owls), and Section 3513 provides protection specifically for migratory, non-game birds designated by the MBTA; and
- Title 14, CCR, Section 670.2 and 670.6 list wildlife species that are designated as California Species of Concern or are state-listed as threatened or endangered species.

#### California Native Plant Protection Act

The NPPA was passed in 1977 and directs CDFW to preserve, protect, and enhance rare and endangered plant species within California. Under the NPPA, CDFW has the power to designate native plants as rare or endangered, and it has the power to require permits for collecting, transporting, or selling these plants. For plant species that are designated as rare, threatened, or endangered species or for plant species that are proposed for listing, CDFW requires a permit pursuant to Section 2081(a) of CESA for take of a listed or candidate plant species for scientific, educational, or management purposes, and/or an permit pursuant to Section 2081(b) of CESA for incidental take of a listed or candidate plant species that are not authorized by the NPPA.

#### California Coastal Act and Environmentally Sensitive Habitat Areas

The CCA is the primary legislation that provides the standards for balancing development and conservation of resources within the coastal zone, which includes approximately 1.5 million acres along the Pacific Coast of the U.S. The CCA is administered by the CCC to regulate the short- and long-term conservation and use of coastal resources through responsible development.

Section 30107.5 of the CCA defines an Environmentally Sensitive Area as "any area in which plant or animal life or their habitats are either rare or especially valuable because of their special

nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments". Pursuant to Section 30240 of the CCA, Environmentally Sensitive Habitat Areas (ESHAs) "shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas". In addition, development adjacent to ESHAs must be located and designed to prevent significant impacts to the functions and values of the ESHA.

#### Coastal Zone Management Program

In addition, California has a federally approved CZMP (see Coastal Zone Management Act of 1972, above), which is administered through a partnership between state and local governments. Within southern California, the two state coastal management agencies include the California Coastal Conservancy and the CCC. The California Coastal Conservancy is responsible for purchasing, protecting, restoring, and enhancing coastal resources, while the CCC manages the development within the coastal zone. The CCA encourages local governments to establish Local Coastal Programs (LCPs) to govern decisions on behalf of the CCC and to protect public access and coastal resources on a local level. After certification of a LCP, authority to issue Coastal Development Permits is delegated to the local government, but the CCC maintains permit jurisdiction over certain specified lands (e.g., tidelands, submerged islands, and public trust lands) and can appeal permits approved by local governments in specified geographic areas.

Development within the coastal zone may not occur until the CCC or a local government with a CCC-certified LCP has issued a Coastal Development Permit. When federal activities or federally licensed, permitted, or assisted activities are proposed that are likely to affect land use, water use, or natural resources within the coastal zone, a federal consistency review is performed pursuant to Section 307 of the CZMA, which gives the CCC or approved local government regulatory control over the proposed federal activities. The CCC uses this review authority to facilitate cooperation and coordination between the local, state, and/or federal agencies and to authorize Coastal Development Permits.

#### California Porter-Cologne Water Quality Control Act

The California Porter-Cologne Water Quality Control Act, which is administered by either the SWRCB and/or the RWQCB, was enacted in 1969 and regulates activities that may impact the quantity and/or quality of both surface water and groundwater. This Act provides protection for both isolated wetlands and Waters of the State, which are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." If a proposed project involves alteration to any Waters of the State, the project proponent must file a Report of Waste Discharge with the appropriate RWQCB to obtain "Waste Discharge Requirements" (WDRs), which serve as the project discharge permit.

#### 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 the CDFW and numerous public and private partners that takes a broad scale, ecosystem approach to planning for the protection and perpetuation of biological diversity

throughout California by protecting both habitats and the species within these habitats while also accommodating compatible land use.

A NCCP plan identifies and provides for the regional protection of plants, wildlife, and their habitats, while allowing compatible and appropriate economic activity in the region. By including key interests in the process and by working with landowners, environmental organizations, and other interested parties, a NCCP plan provides the framework for a local agency to oversee the numerous activities that compose the development of a conservation plan. The CDFW and USFWS provide the necessary support, direction, and guidance to NCCP participants during the NCCP plan development and implementation. Within California, there are currently 23 active NCCP plans 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 NCCP*. This plan is discussed in detail under Local Regulations, below.

# Local Regulations

Several local regulations apply to the proposed project, including:

- SDG&E Subregional NCCP;
- City of San Diego and City of Poway Multiple Species Conservation Program (MSCP) Subarea Plans;
- MCAS Miramar Integrated Natural Resources Management Plan (INRMP);
- Local Coastal Program;
- City of San Diego Urban Forestry Section (City Council Policy 200-5);
- City of Poway Urban Forestry Ordinance; and
- Other Preserves and Conserved Areas.

# SDG&E Subregional Natural Community Conservation Plan

In December 1995, the USFWS and the CDFW approved the *SDG&E Subregional NCCP*, which addresses potential impacts to 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 an incidental take permit (Permit PRT-809637) by the USFWS and the CDFW for 110 Covered Species. The *SDG&E Subregional NCCP* was developed by following the multiple species and habitat conservation planning approach. Even with the *SDG&E Subregional NCCP*, SDG&E's goal is to avoid "take" of Covered Species whenever possible and to implement measures to avoid, minimize, and mitigate any take to the maximum extent possible. The *SDG&E Subregional NCCP* includes mitigation measures and operational protocols that apply to construction and operation and maintenance activities. In approving the NCCP, USFWS and CDFW determined that the mitigation measures and operational protocols avoid potential impacts and provide appropriate mitigation where such

impacts are unavoidable, and ensure the protection and conservation of federal and state listed species and Covered Species. The Proposed Project falls within the area in which SDG&E's utility operations are governed by the *SDG&E Subregional NCCP*, and the *SDG&E Subregional NCCP* will be applied to the Proposed Project. As such, the NCCP fully addresses all of the potential construction and operation and maintenance impacts of the Proposed Project on federal and state listed species and Covered Species. The NCCP mitigation measures and operational protocols have been incorporated as part of the Proposed Project description.

SDG&E is a public utility regulated by the CPUC. As described in the SDG&E Subregional NCCP Implementing Agreement, local governments are precluded from regulating public utilities through their zoning laws, land use laws, ordinances and other police powers (including other NCCPs or HCPs) by the exclusive jurisdiction of the CPUC. Therefore, 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."

# City of San Diego and City of Poway Multiple Species Conservation Program Subarea Plans

The City of San Diego and the City of Poway are two of several jurisdictions participating in the County of San Diego (County) MSCP, which was developed to protect biodiversity and enhance the quality of life in the region through the preservation of a network of habitats and open space areas. The City of San Diego and the City of Poway each have a Subarea Plan that was developed in conjunction with the wildlife agencies (e.g., USFWS and CDFW) and identifies core biological resource areas that are targeted for conservation (refer to Appendix 4.4-A: Appendix A). The City of San Diego Subarea Plan also includes the City of San Diego Multi-Habitat Planning Area (MHPA), which delineates core biological resource areas and habitat corridors that are targeted for conservation and within which limited development may occur.

The City of San Diego and City of Poway Subarea Plans meet the requirements of the NCCP Act of 1992 and are consistent with the County MSCP, thus they serve as stand-alone documents for implementing each city's portion of the County's MSCP. These Subarea Plans also form the basis for the implementing agreements between each city and the wildlife agencies, which ensure the implementation of the resource conservation plans and habitat preserves, thus allowing the cities to issue take permits at the local level.

The Proposed Project falls within the area in which SDG&E's utility operations are governed by the *SDG&E Subregional NCCP* and, therefore, would fall under the *SDG&E Subregional NCCP*. As such, no conflicts are expected to occur with the City of San Diego or the City of Poway Subarea Plans. Because the *SDG&E Subregional NCCP* is independent of other NCCP/HCPs, it is not dependent upon the implementation of such plans and is not superseded by them.

#### Marine Corps Air Station, Miramar Integrated Natural Resources Management Plan

The INRMP summarizes the baseline information for MCAS Miramar that ensures compliance with the regulatory and planning process required by NEPA, the ESA, and the CWA. It also fulfills other responsibilities pursuant to Department of Defense (DoD) and Marine Corps policies as well as other legal requirements. The *INRMP* integrates MCAS Miramar's land use needs, in support of the military mission, with the management and conservation of natural resources on MCAS Miramar. The *INRMP* is a tool that provides MCAS Miramar's guidelines and approach to natural resource management and conservation. While the *INRMP* does not dictate land use decisions, it does inform the planning process by providing important resource information to support land use decisions and natural resource management.

The Proposed Project falls within the area in which SDG&E's utility operations are governed by the SDG&E Subregional NCCP and, therefore, would fall under the SDG&E Subregional NCCP. As such, no conflicts are expected to occur with the MCAS Miramar INRMP. Because the SDG&E Subregional NCCP is independent of other management plans, it is not dependent upon the implementation of such plans and is not superseded by them.

# Local Coastal Program

Local governments use the LCP in partnership with the CCC as a basic planning tool to guide responsible development and to protect natural resources within the coastal zone. Within the vicinity of the Proposed Project, the San Diego Coast Area LCP, which is administered by the City of San Diego, provides the requirements for future development and protection of coastal resources. CZMA, CCA, and CZMP, above, provide a more detailed discussion of the basis for the LCP.

Development within the coastal zone may not occur until the CCC or a local government with a CCC-certified LCP (e.g., City of San Diego) has issued a Coastal Development Permit. When federal activities or federally licensed, permitted, or assisted activities are proposed that are likely to affect land use, water use, or natural resources within the coastal zone, a federal consistency review is pursuant to Section 307 of the CZMA, which gives the CCC or approved local government regulatory control over the proposed federal activities. The CCC uses this review authority to facilitate cooperation and coordination between the local, state, and/or federal agencies and to authorize Coastal Development Permits.

# City of San Diego Urban Forestry Section (City Council Policy 200-5)

The City of San Diego General Services Department, Urban Forestry Section, issues permits for tree trimming, removal, planting, or root pruning following inspection by City of San Diego staff pursuant to City Council Policy 200-5. The Proposed Project falls within the area in which SDG&E's utility operations are governed by the *SDG&E Subregional NCCP* and, therefore, would fall under the *SDG&E Subregional NCCP*. As such, no conflicts are expected to occur with the City of San Diego Urban Forestry guidelines. Because the *SDG&E Subregional NCCP* is independent of other management plans, it is not dependent upon the implementation of such plans and is not superseded by them.

# City of Poway Urban Forestry Ordinance

The City of Poway has an Urban Forestry Ordinance (Poway Municipal Code, Chapter 12.32) that supports urban forestry practices for planting, trimming, and removing trees. A tree removal permit, issued by the Public Works Department, is required before removing a tree on public property or from Development Services before removing certain tree species located on private

property. The Proposed Project falls within the area in which SDG&E's utility operations are governed by the *SDG&E Subregional NCCP* and, therefore, would fall under the *SDG&E Subregional NCCP*. As such, no conflicts are expected to occur with the City of Poway Urban Forestry Ordinance. Because the *SDG&E Subregional NCCP* is independent of other management plans, it is not dependent upon the implementation of such plans and is not superseded by them.

#### Other Preserves and Conserved Areas

The Proposed Project crosses areas that are designated as mitigation/preserve areas as well as conserved lands that have adopted conservation plans (refer to Appendix 4.4-A: Appendix A). These areas have a variety of classifications, including (but not limited to) open space, preserve, park, mitigation land, wildlife refuge, home owners association land, and private land. Because the Proposed Project is anticipated to occur within the area in which SDG&E's utility operations are governed by the SDG&E Subregional NCCP, it would fall under the SDG&E Subregional NCCP. Therefore, no conflicts are expected to occur with the established conservation plans for the mitigation/preserve areas. If potential conflicts occur with these mitigation or preserve areas, the SDG&E Subregional NCCP is independent of other NCCP/HCPs, and, as such, is not dependent upon the implementation of such plans and is not superseded by these plans (SDG&E, 1995). SDG&E would coordinate with the appropriate authorities during the Proposed Project approval process to ensure that the impacts, mitigation measures, and operational protocols are implemented for the Proposed Project under the SDG&E Subregional NCCP.

#### 4.4.3.2 Biological Resources Setting

The approximately 1,058.88-acre Proposed Project Survey Area traverses diverse terrain and supports a variety of vegetation communities and land cover types, which were classified to the extent possible according to both the *SDG&E Subregional NCCP* and Holland (1986). The approximate acreages of each of the 25 vegetation communities and land cover types that were mapped within the Proposed Project Survey Area are summarized in Table 4.4-1, Vegetation Communities and Land Cover Types within the Proposed Project Survey Area.

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NCCP Vegetation Community	Holland Vegetation Community/Land Cover Type	Approx. Acreage
	Diegan Coastal Sage Scrub	179.86
Coastal Sage Scrub	Diegan Coastal Sage Scrub – Disturbed	29.42
	Coastal Sage Scrub – Revegetated	59.26
Coastal Sage/Chaparral Mix	Coastal Sage – Chaparral Scrub	10.44
	Chamise Chaparral	71.12
	Chamise Chaparral - Disturbed	5.61
Chaparral	Southern Mixed Chaparral	93.44
	Southern Mixed Chaparral – Disturbed	4.02
	Scrub Oak Chaparral	78.51
Crassland	Native Grassland	11.01
Grassiand	Nonnative Grassland	85.32
Alkali Marsh	Alkali Marsh – Revegetated	0.29
Freshwater Marsh	Freshwater Marsh	0.49
Inland Watar	San Diego Mesa Vernal Pool	0.08
Infand water	Open Water <sup>1</sup>	0.92
	Southern Riparian Scrub	1.37
<b>D</b> : 1 2 1	Mulefat Scrub	1.40
Kipanan Serub	Southern Willow Scrub	3.41
	Tamarisk Scrub	0.40

# Table 4.4-1: Vegetation Communities and Land Cover Types Within the Proposed Project Survey Area

NCCP Vegetation Community	Holland Vegetation Community/Land Cover Type	Approx. Acreage
Coast Live Oak Riparian Forest	Southern Coast Live Oak Riparian Forest	2.63
Eucalyptus Forest	Eucalyptus Woodland <sup>1</sup>	5.14
Disturbed Habitat	Disturbed Habitat <sup>1</sup>	18.36
	Developed Lands <sup>1</sup>	262.22
N/A	Ornamental <sup>1</sup>	85.93
	Bare Ground <sup>1</sup>	48.29
TOTAL		1,058.88 <sup>2</sup>
Notes: <sup>1</sup> This classification does not have a <sup>2</sup> Total reflects actual total without n	Holland Code. rounding error.	

# Table 4.4-1 (cont.): Vegetation Communities and Land Cover Types Within the Proposed Project Survey Area

#### **Vegetation Communities**

The 25 vegetation communities and land cover types found within the Proposed Project Survey Area are described, below.

## Coastal Sage Scrub

Three types of coastal sage scrub were mapped within the Proposed Project Survey Area, including Diegan coastal sage scrub, disturbed Diegan coastal sage scrub, and revegetated coastal sage scrub.

#### Diegan Coastal Sage Scrub (Holland Code 32510)

Within the Proposed Project Survey Area, there are approximately 179.86 acres of Diegan coastal sage scrub. Diegan coastal sage scrub is a wide-spread vegetation community ranging from coastal Los Angeles County into northern Baja California, Mexico. It consists mainly of low, soft-woody sub-shrubs (approximately 3 feet high) that are most actively growing in winter and early spring. Many taxa are facultatively drought-deciduous. Stem- and leaf-succulents are also often present, but are usually not conspicuously dominant species. This association is typically found on dry sites, such as steep, south-facing slopes or clay-rich soils that are slow to release stored water. Dominant shrub species in this vegetation type may vary, depending on local site factors and levels of disturbance. Within the Proposed Project Survey Area, this vegetation community is characterized by a variable mix of California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum* var. *fasciculatum*), black sage

(Salvia mellifera), laurel sumac (Malosma laurina), deerweed (Acmispon glaber), broom baccharis (Baccharis sarothroides), coyote brush (Baccharis pilularis), California sunflower (Encelia californica), and occasionally live-forevers (Dudleya spp.), coast barrel cactus (Ferocactus viridescens), and needlegrass (Stipa spp.).

#### Diegan Coastal Sage Scrub – Disturbed (Similar to Holland Code 32510)

Within the Proposed Project Survey Area, there are approximately 29.42 acres of disturbed Diegan coastal sage scrub. Disturbed Diegan coastal sage scrub is similar to Diegan coastal sage scrub, described above, but it was classified as disturbed where mechanical or natural disturbance has reduced the overall cover of the community resulting in large areas colonized by herbaceous weedy species and/or bare ground. Some disturbance types include clearing, offroad vehicle damage, or illegal trash disposal.

#### Coastal Sage Scrub – Revegetated (Similar to Holland Code 32510)

Within the Proposed Project Survey Area, there are approximately 59.26 acres of revegetated coastal sage scrub. Revegetated coastal sage scrub is a subtype of coastal sage scrub that represents a restored coastal sage scrub vegetation community. It is not specifically recognized by Holland because it is not a naturally occurring vegetation community. This community often results after an area was disturbed or recontoured to mitigate for impacts associated with the implementation of a project. Container plants and/or a seed mix are planted to restore the area to a natural condition based on the local topography. Evidence of restored or revegetated sites often includes irrigation distribution equipment, evenly spaced container plantings, straw waddles for interim erosion control, stakes, hydromulch, evenly graded or plowed soil substrate, among others. On occasion, species that are not necessarily native to the immediate area are also planted, including brittlebush (*Encelia farinosa*) and cultivars of sage (*Salvia* spp.).

#### Coastal Sage/Chaparral Mix

The coastal sage/chaparral mix within the Proposed Project Survey Area was classified as coastal sage-chaparral scrub, consistent with Holland Code 37G00. Within the Proposed Project Survey Area, there are approximately 10.44 acres of coastal sage-chaparral scrub. Coastal sage-chaparral scrub is a mixed community including both drought-deciduous sage scrub species and woody chaparral species. This vegetation community is apparently a post-fire successional community containing vegetative cover that includes roughly equal amounts of both sage scrub and chaparral species. Characteristic dominant species often include chamise, California sagebrush, lilacs (*Ceanothus* spp.), black sage, broom baccharis, laurel sumac, lemonadeberry (*Rhus integrifolia*), and poison oak (*Toxicodendron diversilobum*). Within the Proposed Project Survey Area, this vegetation community includes the following plant species: chamise, California sagebrush, California buckwheat, black sage, laurel sumac, lemonadeberry, and mission manzanita (*Xylococcus bicolor*). Coastal sage-chaparral scrub is generally considered sensitive and is regulated similar to coastal sage scrub as described above.

## Chaparral

Five types of chaparral were mapped within the Proposed Project Survey Area, including chamise chaparral, disturbed chamise chaparral, southern mixed chaparral, disturbed southern mixed chaparral, and scrub oak chaparral.

#### Chamise Chaparral (Holland Code 37200)

Within the Proposed Project Survey Area, there are approximately 71.12 acres of chamise chaparral. Chamise chaparral is widely distributed throughout California on dry slopes and ridges at low and medium elevations where it occupies thin, rocky, or heavy soils. It is typically composed of broad-leaved, sclerophyllous shrubs (e.g., bearing stiff, leathery leaves), although species composition varies considerably with location. The plants of this community have developed the ability to survive recurrent fires by producing seeds that require a fire-related cue to stimulate germination and/or by stump sprouting after being burned. Within the Proposed Project Survey Area, this vegetation community is characterized by nearly monotypic stands of chamise ranging from 3 to 9 feet in height. Occasionally, other shrub species, such as mission manzanita or coast spice bush (*Cneoridium dumosum*) are present, but contribute little to the overall cover.

#### Chamise Chaparral – Disturbed (Similar to Holland Code 37200)

Within the Proposed Project Survey Area, there are approximately 5.61 acres of disturbed chamise chaparral. Disturbed chamise chaparral is similar to chamise chaparral, described above, but it was classified as disturbed where this community has been altered by mechanical disturbance or where it has poorly recovered from fire. These areas are generally characterized by a highly reduced and fragmented vegetative cover and may support a high percentage of nonnative grasses or ruderal species, particularly in the understory.

#### Southern Mixed Chaparral (Holland Code 37120)

Within the Proposed Project Survey Area, there are approximately 93.44 acres of southern mixed chaparral. Southern mixed chaparral tends to occur on steeper, more mesic north-facing slopes than chamise chaparral. This vegetation community type is characterized by relatively high species diversity. Within the Proposed Project Survey Area, this vegetation community includes the following plant species: mission manzanita, coast spice bush, Nuttall's scrub oak (*Quercus dumosa*), Ramona-lilac (*Ceanothus tomentosus*), summer-holly (*Comarostaphylis diversifolia* ssp. *diversifolia*), lemonadeberry, and toyon (*Heteromeles arbutifolia*). The understory component is generally better-developed in this association than in chamise chaparral, and may include species such as mariposa-lily (*Calochortus* spp.), soap plant (*Chlorogalum* spp.), and bedstraw (*Galium* spp.), among others.

## Southern Mixed Chaparral – Disturbed (Similar to Holland Code 37120)

Within the Proposed Project Survey Area, there are approximately 4.02 acres of disturbed southern mixed chaparral. Disturbed southern mixed chaparral is similar to southern mixed chaparral, described above, but it was classified as disturbed where this community has been altered by disturbance, such as clearing, off-road vehicle damage, or illegal trash disposal. These

areas are generally characterized by a highly reduced and fragmented vegetative cover and may support a high percentage of nonnative grasses or ruderal species, particularly in the understory.

## Scrub Oak Chaparral (Holland Code 37900)

Within the Proposed Project Survey Area, there are approximately 78.51 acres of scrub oak chaparral. Scrub oak chaparral is a dense, evergreen chaparral association that approaches 20 feet in height and is dominated by Nuttall's scrub oak and/or oak hybrids such as *Quercus xacutidens*. This habitat occurs on more mesic sites (such as east and north facing slopes and ravines) than the other chaparral associations and often at slightly higher elevations. These more favorable sites often allow scrub oak chaparral to recover from fire more quickly than other chaparral types. Additional shrub species found in scrub oak chaparral include chamise, mission manzanita, and coast spice bush.

# Grassland

Two types of grassland were mapped within the Proposed Project Survey Area, including native grassland and nonnative grassland.

## Native Grassland (Holland Code 42110)

Within the Proposed Project Survey Area, there are approximately 11.01 acres of native grassland. Native grassland is characterized by a relatively low (greater than 10 percent) to dense herbaceous cover of the perennial, tussock-forming needlegrass species and most closely corresponds to Holland's valley needlegrass grassland. Native and introduced annuals occur between the needlegrass, often actually exceeding the bunchgrass in cover. This association generally occurs on fine-textured clay soils that are moist or wet in winter, but very dry in summer. Shrubs are infrequent, probably due to the unstable clay soils. The degree of habitat quality in native grasslands varies greatly, depending on the history of grazing, cultivation, or other disturbance factors. Within the Proposed Project Survey Area, this association generally occurs as small stands interspersed within scrub habitats. It is dominated by needlegrass species (*Stipa* spp.); other indicator species include blue-eyed grass (*Sisyrinchium bellum*), mariposalily, and clarkia (*Clarkia* spp.).

## Nonnative Grassland (Holland Code 42200)

Within the Proposed Project Survey Area, there are approximately 85.32 acres of nonnative grassland. Nonnative grassland generally occurs on fine-textured loam or clay soils that are moist or even waterlogged during the winter rainy season and very dry during the summer and fall. It is characterized by a dense to sparse cover of annual grasses, often with native and nonnative annual forbs. This habitat is a disturbance-related community most often found in old agricultural fields or openings in native scrub habitats. This association has replaced native grassland and coastal sage scrub at many localities throughout southern California. Typical nonnative grasses found within the Proposed Project Survey Area include red brome (*Bromus rubens*), ripgut grass (*Bromus diandrus*), wild oat (*Avena barbata*), and soft chess (*Bromus hordeaceus*). Characteristic forbs include red-stem filaree (*Erodium cicutarium*), mustard (*Brassica* spp.), tar plant (*Deinandra* spp.), California goldfields (*Lasthenia spp.*), and purple owl's clover (*Castilleja exserta* ssp. *exserta*).

## Alkali Marsh (similar to Holland Code 52310)

The alkali marsh within the Proposed Project Survey Area was classified as revegetated alkali marsh, similar to Holland Code 52310. Within the Proposed Project Survey Area, there is approximately 0.29 acre of revegetated alkali marsh located in one small area within the Proposed Project Survey Area. This community occurs in an area that was disturbed or recontoured, likely to mitigate for impacts associated with the implementation of a project. Within the Proposed Project Survey Area, the revegetated alkali marsh consists of spiny rush (*Juncus acutus* ssp. *leopoldi*) and San Diego marsh-elder (*Iva hayesiana*) along an ephemeral drainage.

## Freshwater Marsh (Holland Code 52410)

Within the Proposed Project Survey Area, there is approximately 0.49 acre of freshwater marsh. Freshwater marsh is dominated by perennial, emergent monocots measuring about 4.3 to 6.6 feet in height. Freshwater marsh occurs in wetlands that are permanently flooded by standing fresh water. Within the Proposed Project Survey Area, freshwater marsh is comprised of uniform stands of cattails (*Typha domingensis*).

#### Inland Water

Two types of inland water were mapped within the Proposed Project Survey Area, including San Diego mesa vernal pools and open water.

#### San Diego Mesa Vernal Pools (Holland Code 44321)

Within the Proposed Project Survey Area, there is approximately 0.08 acre of San Diego mesa vernal pools. San Diego mesa vernal pools are a highly specialized vegetation community occurring on undeveloped mesa tops. Vernal pools are depressions that fill with rainwater that does not drain off or percolate because of the mesa top topography and underlying soil conditions (i.e., a claypan or hardpan layer that prevents or impedes subsurface drainage). These pools support a unique plant community dominated by annual herbs and grasses. Many special-status plant and wildlife species have a potential to occur in these pools, including the endangered San Diego button-celery (*Eryngium aristulatum* var. *parishii*) and San Diego fairy shrimp (*Branchinecta sandiegonensis*). San Diego button-celery and woolly marbles (*Psilocarphus brevissimus*) were observed in vernal pools within the Proposed Project Survey Area during the late summer/fall 2013 special-status plant species surveys.

#### Open Water (No Holland Code)

Within the Proposed Project Survey Area, there is approximately 0.92 acre of open water. Open water includes reservoirs, lakes, ponds, and relatively large sloughs, channels, and rivers or streambeds that contain water throughout the year. Within the Proposed Project Survey Area, open water habitat occurs in the form of a stock pond in the western portion of the Proposed Project Survey Area.

## Riparian Scrub

Four types of riparian scrub were mapped within the Proposed Project Survey Area, including southern riparian scrub, mulefat scrub, southern willow scrub, and tamarisk scrub.

#### Southern Riparian Scrub (Holland Code 63300)

Within the Proposed Project Survey Area, there are approximately 1.37 acres of southern riparian scrub. Southern riparian scrub represents a combination of both the southern willow scrub and mulefat scrub communities of Holland's classification system (see below). It varies from a dense, broad-leafed, winter-deciduous association dominated by several species of willow (*Salix* spp.) to an herbaceous scrub dominated by mulefat (*Baccharis salicifolia*). Understory vegetation is usually composed of nonnative, weedy species or is lacking altogether. This association may represent a successional stage leading to riparian woodland or forest, or it may be a stable vegetation community. Southern riparian scrub species observed within the Proposed Project Survey Area include black willow (*Salix gooddingii*), arroyo willow (*Salix lasiolepis*), and mulefat.

#### Mulefat Scrub (Holland Code 63310)

Within the Proposed Project Survey Area, there are approximately 1.40 acres of mulefat scrub. Mulefat scrub is characterized as a depauperate, tall, herbaceous riparian scrub strongly dominated by mulefat. Within the Proposed Project Survey Area, this community was present in small patches along ephemeral stream channels with coarse substrate.

#### Southern Willow Scrub (Holland Code 63320)

Within the Proposed Project Survey Area, there are approximately 3.41 acres of southern willow scrub. Southern willow scrub is found on loose, sandy, or fine gravelly alluvium deposited near stream channels during floods, and most stands are too dense to allow much understory to develop. Within the Proposed Project Survey Area, this community was comprised of black willow and arroyo willow and was present along ephemeral stream channels with coarse substrate, often adjacent to mulefat scrub.

#### Tamarisk Scrub (Holland Code 63810)

Within the Proposed Project Survey Area, there is approximately 0.40 acre of tamarisk scrub. Tamarisk scrub is a disturbed wetland community dominated by the nonnative, invasive Tamarisk (*Tamarix* spp.). This species can be a dominant along ephemeral and perennial drainages with alkaline soils where native riparian vegetation has been removed or disturbed. Within the Proposed Project Survey Area, tamarisk scrub is present along two disturbed drainages adjacent to native riparian vegetation, such as freshwater marsh and mulefat scrub.

## Coast Live Oak Riparian Forest (Holland Code 61310)

The coast live oak riparian forest within the Proposed Project Survey Area was classified as southern coast live oak riparian forest, consistent with Holland Code 61310. Within the Proposed Project Survey Area, there are approximately 2.63 acres of southern coast live oak

riparian forest. Southern coast live oak riparian forest is characterized by an open to locally dense evergreen plant community dominated by coast live oak trees (*Quercus agrifolia*), which can reach from 30 feet to over 80 feet in height. This community typically has a poorly developed understory of shrubs, which can include toyon, Mexican elderberry (*Sambucus mexicana*), lemonadeberry, and poison oak, among others. The herb layer by contrast is well developed and relatively continuous. It often includes bedstraw, nettles (*Urtica spp.*), and various native and nonnative grasses. This habitat can be found on well-drained bottomlands and outer floodplains on fine-grained, rich alluvium. Within the Proposed Project Survey Area, dominant species observed besides coast live oaks include toyon, poison oak, wild oats, and bedstraw.

# Eucalyptus Forest (no Holland Code)

The eucalyptus forest within the Proposed Project Survey Area was classified as eucalyptus woodland. Within the Proposed Project Survey Area, there are approximately 5.14 acres of eucalyptus woodland. Eucalyptus woodland is not a native plant community in California and is not described in Holland. It is typically characterized by dense stands of gum trees (*Eucalyptus* spp.). Plants in this genus, imported primarily from Australia, were originally planted in groves throughout many regions of coastal California as a potential source of lumber and building materials, for their use as windbreaks, and for their horticultural novelty. They have increased their cover through natural regeneration, particularly in moist areas sheltered from strong coastal winds. Gum trees naturalize readily in the state and, where they form dense, monotypic stands, tend to completely supplant native vegetation, greatly altering community structure and dynamics. Very few native plants are compatible with eucalyptus.

## Disturbed Habitat (no Holland Code)

Within the Proposed Project Survey Area, there are approximately 18.36 acres of disturbed habitat. Disturbed habitat refers to any land on which the native vegetation has been significantly altered by agriculture, construction, or other land-clearing activities, and the species composition and site conditions are not characteristic of the disturbed phase of a particular vegetation community (e.g., disturbed chaparral). Disturbed habitat is typically found in vacant lots, roadsides, construction staging areas, or abandoned fields, and is dominated by nonnative annual species and perennial broadleaf species. Within the Proposed Project Survey Area, disturbed habitat consisted of widely spaced Russian-thistle (*Salsola tragus*), horseweed (*Conyza* spp.), mustard (*Hirschfeldia incana*), and nonnative grasses.

## Other Land Cover Types

Three other land cover types, including developed lands, ornamental, and bare ground, were mapped within the Proposed Project Survey Area but do not correspond with a Holland Code.

## Developed Lands

Within the Proposed Project Survey Area, there are approximately 262.22 acres of developed lands. Developed lands are not recognized by Holland because they support no naturally occurring native vegetation and are characterized by the presence of human-made structures, such as buildings or roads. The level of soil disturbance is such that only the most ruderal plant

species would be expected. In many areas, ornamental plantings are included in developed lands where they are immediately adjacent and part of the residential and/or commercial development.

#### <u>Ornamental</u>

Within the Proposed Project Survey Area, there are approximately 85.93 acres of ornamental vegetation. Ornamental vegetation is not recognized by Holland and typically consists of nonnative landscape and/or garden plantings that have been planted in association with buildings, roads, or other development. San Diego County supports more than 250 different types of ornamental trees and numerous other shrubs and herbs that decorate urban areas. Occasionally ornamental species such as rock rose (*Cistus* spp.) were found growing within the Proposed Project Survey Area away from urban areas, and may be naturalizing.

## Bare Ground

Within the Proposed Project Survey Area, there are approximately 48.29 acres of bare ground. Bare ground lacks vegetation, typically because of recent and/or continuous clearing of vegetation. Not recognized by Holland, these areas differ from "developed" because they do not support buildings, paved roads, parking lots, or ornamental plantings and typically the soil is exposed. Within the Proposed Project Survey Area, bare ground includes dirt roads and recently graded areas.

# **Critical Habitat**

USFWS designates critical habitat for endangered and threatened species under the federal ESA (16 USC Section 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 of migration.

The USFWS critical habitat areas for listed species were searched using GIS shapefiles provided by USFWS within five miles of the Proposed Project alignment. USFWS designated critical habitat areas were identified for seven species, including San Diego thornmint (*Acanthomintha ilicifolia*), willowy monardella (*Monardella viminea*), spreading navarretia (*Navarretia fossalis*), San Diego fairy shrimp (*Branchinecta sandiegonensis*), western snowy plover (*Charadrius alexandrinus nivosus*), least Bell's vireo (*Vireo bellii pusillus*), and coastal California gnatcatcher. These areas are summarized in Table 4.4.-2, Critical Habitat in Vicinity of the Proposed Project.

Species	Location of Critical Habitat
San Diego thornmint (Acanthomintha ilicifolia)	2 areas within about 0.25 mile of alignment, another one about 3 miles east of alignment
Willowy monardella (Monardella viminea)	about 2.5 miles southeast of alignment
Spreading navarretia (Navarretia fossalis)	about 5 miles south of alignment
San Diego fairy shrimp (Branchinecta sandiegonensis)	many designations within buffer, alignment crosses
Western snowy plover ( <i>Charadrius alexandrinus nivosus</i> )	closest about 2 miles west of alignment
Least Bell's vireo (Vireo bellii pusillus)	4.5 miles south of alignment
Coastal California gnatcatcher ( <i>Polioptila californica californica</i> )	closest about 2.5 miles southeast of alignment

# Table 4.4-2: Critical Habitat in Vicinity of the Proposed Project

The only critical habitat located within the Proposed Project Survey Area is the designated San Diego fairy shrimp critical habitat.

## **Preserve Areas**

Preserve areas refer to established Preserve Areas of HCPs; federal, state, or local preserve areas, including public and private lands; or other areas set aside for the protection of biological resources. Preserve areas that occur within and immediately adjacent to the Proposed Project Survey Area were considered, and a total of approximately 557.67 acres of preserve areas occur within the Proposed Project Survey Area (refer to Appendix 4.4-A: Appendix A). Table 4.4-3, Vegetation Communities and Land Cover Types within Preserve Areas summarizes the vegetation communities that occur within the preserve areas.

Vegetation Community	Approx. Acres
Diegan Coastal Sage Scrub	132.52
Diegan Coastal Sage Scrub - Disturbed	3.67
Coastal Sage Scrub – Revegetated	20.98
Coastal Sage - Chaparral Scrub	7.00
Chamise Chaparral	68.63
Chamise Chaparral - Disturbed	2.24
Southern Mixed Chaparral	54.80
Southern Mixed Chaparral - Disturbed	4.02
Scrub Oak Chaparral	77.88
Native Grassland	9.95
Nonnative Grassland	62.70
Alkali Marsh – Revegetated	0.29
Freshwater Marsh	0.25
Open Water	0.92
Southern Riparian Scrub	1.37
Mulefat Scrub	1.40
Southern Willow Scrub	2.50
Tamarisk Scrub	0.40
Southern Coast Live Oak Riparian Forest	2.63
Eucalyptus Woodland	2.97
Disturbed Habitat	4.83
Developed Lands	39.95
Ornamental	25.14
Bare Ground	30.61
TOTAL PRESERVE ACREAGE	557.67 <sup>1</sup>
Notes: <sup>1</sup> Total reflects actual total without rounding error.	

# Table 4.4-3: Vegetation Communities and Land Cover Types within Preserve Areas

#### **Environmentally Sensitive Habitat Areas (ESHAs)**

ESHAs are defined as "any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments". Proposed development within and adjacent to an ESHA must be located and designed to prevent significant impacts to the functions and values of the ESHA. ESHAs that occur within and immediately adjacent to the Proposed Project Survey Area were considered, and a total of approximately 110.85 acres of ESHA occur within the Proposed Project Survey Area (refer to Appendix 4.4-A: Appendix A). Table 4.4-4, Vegetation Communities and Land Cover Types within ESHAs summarizes the vegetation communities that occur within the ESHAs. It is important to note that all ESHAs are also included in the designated preserve areas discussed above.

Vegetation Community	Approx. Acres			
Diegan Coastal Sage Scrub	66.51			
Diegan Coastal Sage Scrub - Disturbed	0.65			
Coastal Sage Scrub – Revegetated	1.47			
Coastal Sage - Chaparral Scrub	2.38			
Chamise Chaparral	7.23			
Southern Mixed Chaparral	13.14			
Scrub Oak Chaparral	3.83			
Native Grassland	1.83			
Nonnative Grassland	6.13			
Southern Willow Scrub	0.19			
Bare Ground	5.32			
TOTAL ESHA ACREAGE	110.85 <sup>1</sup>			
Notes: <sup>1</sup> Total reflects actual total without rounding error.				

## Table 4.4-4: Vegetation Communities and Land Cover Types within ESHAs

## **Special-Status Plants**

Based on the background research conducted for this Proposed Project, a total of 75 specialstatus plant species have a potential to occur within five miles of the Proposed Project alignment (see Appendix 4.4-A: Appendix D). Of these, 41 special-status plant species are not expected to occur within or adjacent to the Proposed Project Survey Area. Of the 34 special-status plant species with a potential to occur within the Proposed Project Survey Area, 12 were observed during the late summer/fall 2013 special-status plant species surveys (refer to Appendix 4.4-A: Appendices A and E). In order of highest to lowest sensitivity, these species include:

- San Diego button-celery (*Eryngium aristulatum* ssp. *parishii*; FE, SE, CRPR 1B.1, NCCP)
- Nuttall's scrub oak (*Quercus dumosa*; CRPR 1B.1)
- San Diego goldenstar (*Bloomeria clevelandii*; CRPR 1B.1, NCCP)
- summer-holly (*Comarostaphylis diversifolia* ssp. *diversifolia*; 1B.2)
- Torrey pine (as planted individuals) (*Pinus torreyana*; CRPR 1B.2, NCCP)
- spineshrub (*Adolphia californica*; CRPR 2B.1)
- coast barrel cactus (*Ferocactus viridescens*; CRPR 2B.1, NCCP)
- San Diego marsh-elder (*Iva hayesiana*; CRPR 2B.2)
- graceful tarplant (*Holocarpha virgata* ssp. *elongata*; CRPR 4.2)
- spiny rush (*Juncus acutus* ssp. *leopoldii*; CRPR 4.2)
- Palmer's sagewort (*Artemisia palmeri*; CRPR 4.2)
- San Diego sunflower (*Bahiopsis* [*Viguiera*] *laciniata*; CRPR 4.2)

A brief discussion of each of the 12 species that are known to occur within the Proposed Project Survey Area based on the results of the late summer/fall 2013 focused surveys is provided, below. Detailed information for the other special-status plant species that have not been observed can be found in Appendix 4.4-A: Appendix E. Additional special-status plant species may be identified during the focused special-status plant species surveys planned for spring and summer 2014.

# San Diego Button-Celery (Eryngium aristulatum ssp. parishii; FE, SE, CRPR 1B.1, NCCP)

San Diego button-celery is a federally listed endangered species, a state-listed endangered species, a CRPR 1B.1 species (seriously threatened in California and elsewhere), and a NCCP-covered species. It is an annual/perennial herb in the Apiaceae family that typically blooms from April to June. This species is found in mesic soils within and around vernal pools in coastal sage scrub and grassland. San Diego button-celery is known from Riverside and San Diego counties as well as from Baja California, Mexico, at elevations between 65 and 2,035 feet amsl. This species is threatened by development, nonnative plant species, trampling by foot traffic, road maintenance, agricultural practices, grazing, vehicle activity, and illegal dumping.

San Diego button-celery is present within the Proposed Project Survey Area. This species was observed in vernal pools near the Peñasquitos Substation and the Del Mar Mesa Preserve.

# Nuttall's Scrub Oak (Quercus dumosa; CRPR 1B.1)

Nuttall's scrub oak is a CRPR 1B.1 species (seriously threatened in California and elsewhere). It is an evergreen shrub in the Fagaceae family that typically blooms from February to April. This species is found in sandy or clay loam soils in chaparral, coastal sage scrub, and closed-cone coniferous forest. Nuttall's scrub oak is known from southern California from Orange, Santa Barbara, San Diego, and Ventura counties as well as from Baja California, Mexico, at elevations between 45 and 1,315 feet amsl. This species is threatened by development, fire suppression, and vegetation/fuels management.

Nuttall's scrub oak is present within the Proposed Project Survey Area. This species occurs both as a dominant in Scrub Oak Chaparral and as scattered individuals within the Proposed Project Survey Area.

#### San Diego Goldenstar (Bloomeria clevelandii; CRPR 1B.1, NCCP)

San Diego goldenstar is a CRPR 1B.1 species (seriously threatened in California and elsewhere) and a NCCP-covered species. It is a bulbiferous herb in the Themidaceae family that typically blooms from April to May. This species typically is found in clay soils in grassland, chaparral, coastal sage scrub, grassland, and around vernal pools. San Diego goldenstar is known from Riverside and San Diego counties as well as from Baja California, Mexico, at elevations between 160 and 1,525 feet amsl. This species is threatened by development, road construction and maintenance, vehicle traffic, nonnative plant species, and illegal dumping.

San Diego goldenstar is present within the Proposed Project Survey Area. This species was observed at one location in native grassland.

#### Summer-Holly (Comarostaphylis diversifolia ssp. diversifolia; 1B.2)

Summer-holly is a CRPR 1B.2 species (moderately threatened in California and elsewhere). It is an evergreen shrub in the Ericaceae family that typically blooms from April to June. This species is found in chaparral and cismontane woodland. Summer-holly is known from Orange, Riverside, Santa Barbara, and San Diego counties as well as from Baja California, Mexico, at elevations between 95 and 2,595 feet amsl. This species is threatened by development and gravel mining.

Summer-holly is present within the Proposed Project Survey Area. This species was observed in chaparral, primarily in the Del Mar Mesa Preserve and adjacent areas during the late summer/fall 2013 focused special-status plant surveys.

## Torrey Pine (as planted individuals) (Pinus torreyana; CRPR 1B.2, NCCP)

Torrey pine is a CRPR 1B.2 species (moderately threatened in California and elsewhere) and a NCCP-covered species. It is an evergreen tree in the Pinaceae family. This species typically is found in sandstone in chaparral and closed-cone coniferous forest. Torrey pine is known from San Diego and Santa Barbara counties at elevations between 245 and 525 feet amsl. This species is threatened by development; it was threatened by the five-spined bark beetle at Torrey Pines State Reserve, but biological control has contained the infestation.

Torrey pine is present within the Proposed Project Survey Area. This species was observed as planted individuals at the Peñasquitos substation; however, this species was not observed naturally occurring within the Proposed Project Survey Area.

# Spineshrub (Adolphia californica; CRPR 2B.1)

Spineshrub is a CRPR 2B.1 species (seriously threatened in California but more common elsewhere). It is a deciduous shrub in the Rhamnaceae family that typically blooms from December to May. This species is often found on dry slopes in chaparral, coastal sage scrub, and grassland. Spineshrub is found in San Diego County and Baja California, Mexico, at elevations between 145 and 2,430 feet amsl. This species is threatened by development, road construction, nonnative plant species, and grazing.

Spineshrub is present within the Proposed Project Survey Area. This species was observed in many parts of the Proposed Project Survey Area during the late summer/fall 2013 focused special-status plant surveys, and it was dominant in some of Diegan coastal sage scrub areas.

## Coast Barrel Cactus (Ferocactus viridescens; CRPR 2B.1, NCCP)

Coast barrel cactus is a CRPR 2B.1 species (seriously threatened in California but more common elsewhere) and a NCCP-covered species. It is a stem succulent in the Cactaceae family that typically blooms from May to June. This species typically is found on dry, west and south facing slopes in chaparral, coastal sage scrub, grassland, and adjacent to vernal pools. Coast barrel cactus is known from Riverside and San Diego counties as well as from Baja California, Mexico, at elevations between 10 and 1,480 feet amsl. This species is threatened by development, nonnative plant species, trampling by foot traffic, road maintenance, agricultural practices, grazing, vehicle activity, and illegal dumping.

Coast barrel cactus is present within the Proposed Project Survey Area. This species was observed on dry, west- or south-facing slopes in several locations within the Proposed Project Survey Area, often co-occurring with spineshrub.

## San Diego Marsh-Elder (Iva hayesiana; CRPR 2B.2)

San Diego marsh-elder is a CRPR 2B.2 species (moderately threatened in California but more common elsewhere). It is a perennial herb in the Asteraceae family that typically blooms from April to October. This species is found along ephemeral drainages, alkali marshes, and playas. San Diego marsh-elder is known from San Diego County and from Baja California, Mexico, at elevations between 30 and 1,640 feet amsl. This species is threatened by waterway channelization, coastal development, nonnative plant species, and vehicle activity.

San Diego marsh-elder is present within the Proposed Project Survey Area. This species was observed along drainages and in revegetated areas.

## Graceful Tarplant (Holocarpha virgata ssp. elongata; CRPR 4.2)

Graceful tarplant, a California endemic species, is a CRPR 4.2 species (limited distribution and moderately threatened in California). It is an annual herb in the Asteraceae family that typically

blooms from May to November. This species typically is found in clay soils in chaparral, cismontane woodland, coastal sage scrub, grassland, and disturbed areas. Graceful tarplant is known from southern California in Orange, Riverside, and San Diego counties, at elevations between 195 and 3,610 feet amsl. This species is threatened mainly by development.

Graceful tarplant is present within the Proposed Project Survey Area. This species was observed in disturbed areas near grassland and existing SDG&E towers.

## Spiny Rush (Juncus acutus ssp. leopoldii; CRPR 4.2)

Spiny rush is a CRPR 4.2 species (limited distribution and moderately threatened in California). It is a rhizomatous herb in the Juncaceae family that blooms from May to June. This species typically is found along ephemeral drainages, alkaline marshes and seeps, mesic areas of coastal dunes, and coastal salt marsh. Spiny rush is known from southern California in Imperial, Los Angeles, Orange, Santa Barbara, San Diego, San Luis Obispo, and Ventura counties; from Nevada, Arizona, and Georgia; and from Baja California, Mexico, as well as into South America. It is found at elevations between 10 and 2,955 feet amsl. This species is threatened by development and flood control activities.

Spiny rush is present within the Proposed Project Survey Area. This species was observed along drainages and in revegetated areas.

#### Palmer's Sagewort (Artemisia palmeri; CRPR 4.2)

San Diego sagewort is a CRPR 4.2 species (limited distribution and moderately threatened in California). It is a deciduous shrub in the Asteraceae family that typically blooms from May to September. This species is found in mesic, sandy soils along drainages in chaparral, coastal sage scrub, and riparian habitats. San Diego sagewort is found in San Diego County and in Baja California, Mexico, at elevations between 45 and 3,005 feet amsl. This species is threatened by development, flood control projects, and possibly by nonnative plant species.

San Diego sagewort is present within the Proposed Project Survey Area. This species was observed in small patches along several drainages during the late summer/fall 2013 focused special-status plant surveys.

#### San Diego Sunflower (Bahiopsis [Viguiera] laciniata; CRPR 4.2)

San Diego sunflower is a CRPR 4.2 species (limited distribution and fairly endangered in California). It is a shrub in the Asteraceae family that typically blooms from February to June. This species typically is observed on dry, south or west-facing slopes in chaparral and coastal sage scrub. San Diego sunflower is known from Orange and San Diego counties as well as from Baja California and Sonora, Mexico. It is found at elevations between 195 and 2,460 feet amsl. This species is threatened by development.

San Diego sunflower is present within the Proposed Project Survey Area. This species was observed in areas that have been revegetated recently, but it was not observed naturally occurring within the Proposed Project Survey Area.

# Special-Status Wildlife Species

Based on the background research conducted for this Proposed Project, a total of 98 specialstatus wildlife species have the potential to occur within the vicinity of the Proposed Project Survey Area (see Appendix 4.4-A: Appendix F). Of these, 48 special-status species are not expected to occur within or adjacent to the Proposed Project Survey Area either because there is no suitable habitat present or because they are in the vicinity outside of their "season of concern" (e.g., migrant bird species). The remaining 50 special-status wildlife species have a potential to occur within the Proposed Project Survey Area. Of the 50 special-status wildlife species with a potential to occur within the Proposed Project Survey Area, nine were detected during the surveys conducted in the fall 2013 for the Proposed Project (refer to Appendix 4.4-A: Appendix G), including:

- Belding's orange-throated whiptail (*Aspidoscelis hyperythra beldingi*; SSC, NCCP)
- Cooper's hawk (*Accipiter cooperii*; WL, NCCP)
- Vaux's swift (*Chaetura vauxi*; SSC)
- loggerhead shrike (*Lanius ludovicianus*; SSC)
- California horned lark (*Erempohila alpestris actia*; SSC)
- coastal California gnatcatcher (*Polioptila californica californica*; FT, SSC, NCCP)
- southern California rufous-crowned sparrow (Aimophila ruficeps canescens; WL, NCCP)
- western bluebird (*Sialia mexicana*; NCCP)
- southern mule deer (*Odocoileus hemionus*; NCCP)

While the Vaux's swift was observed during the late summer/fall 2013 surveys performed for the Proposed Project, it is considered sensitive in its nesting habitat. Because it is not expected to nest within the Proposed Project Survey Area, it is not discussed further in this document. A brief discussion of each of the other eight species that are known to occur within the Proposed Project Survey Area based on the results of the late summer/fall 2013 focused surveys is provided, below. Detailed information for the other special-status species that have not been observed can be found in Appendix 4.4-A: Appendix F.

## Belding's orange-throated whiptail (Aspidoscelis hyperythra beldingi; SSC, NCCP)

The Belding's orange-throated whiptail is a CDFW species of special concern and a NCCPcovered species. This subspecies ranges from southwestern San Bernardino County, south into Baja California at elevations from sea level to 2,000 feet amsl. Belding's orange-throated whiptail is found in areas of pristine open coastal sage scrub, chaparral, and streamside growth with loose sandy soils. It appears to prefer sage scrub that covers approximately 50 percent of the ground without dense grasses in between, but it also inhabits dense to extremely open stands of sage as well as chamise chaparral. It can also often be found in upland revegetation sites since these areas provide the open habitat it prefers. This lizard typically hibernates during winter, emerging in February or April, but can be active year-round when temperatures are warm. Breeding occurs from May through July. Their diet consists primarily of termites, but they also take spiders, centipedes, and scorpions, as well as small lizards. Threats to Belding's orangethroated whiptail are attributed to habitat loss and fragmentation caused by development.

The Belding's orange-throated whiptail is present within the Proposed Project Survey Area (refer to Appendix 4.4-A: Appendix A), as it was observed during biological surveys performed for the Proposed Project. This species is known to occur within the vicinity of the Proposed Project Survey Area, and suitable habitat for the species is present throughout the Proposed Project Survey Area.

## Cooper's Hawk (Accipiter cooperii; WL, NCCP)

The Cooper's hawk is a CDFW taxa to watch and a NCCP-covered species. The Cooper's hawk is wholly endemic to North America, but widespread, with both migratory and resident populations ranging from southern Canada to southern Mexico. In California, the species is a resident, but migrants from its northern range substantially increase the population during the winter months. Although this species was previously associated only with semi-dense woodlands, Cooper's hawks have adapted to urban landscapes, as they are often at least as numerous in urban habitats as in natural ones. The Cooper's hawk was listed in 1978 as a species of concern by CDFW because the population was in decline as a result of hunting, destruction of riparian woodland, and pesticide contamination. However, recent studies suggest that populations have recovered in many areas, as it has adapted to breeding in urban areas. However, with the colonization of urban habits also comes an increased incidence of collision with windows and disease.

The Cooper's hawk has a high potential to nest within the Proposed Project Survey Area. Suitable nesting habitat for the species is present throughout the Proposed Project Survey Area and the species is known to occur within the vicinity of the Proposed Project Survey Area. The species was observed during the late summer/fall 2013 focused surveys performed for the Proposed Project (refer to Appendix 4.4-A: Appendix A).

## Loggerhead Shrike (Lanius ludovicianus; SSC)

The loggerhead shrike is a CDFW species of special concern. This species is distributed throughout the central U.S. and Mexico year-round with some breeding population migrating north into Canada in summer. A breeding resident in California, it is found throughout much of the state, excluding heavily forested high mountains, higher portions of the desert ranges, the Sierra Nevada and the far northwest. It is found in open country with short vegetation such as pastures with fence rows, agricultural fields and open woodlands, where it hunts from perches to capture a variety of prey from insects to small mammals and birds which it then impales sharp objects such as thorns and barbed-wire fences in order to hold them during consumption. Threats to this species include changes in human land-use practices, the spraying of pesticides, and competition with species that are more tolerant of. Perhaps surprisingly, the Salton Sea and the Central Valley support the highest densities of this species in California; in these regions it is considered a fairly common breeding resident, becoming more numerous in winter with the dispersal of birds breeding to the north.

The loggerhead shrike has a high potential to nest within the Proposed Project Survey Area, and it was observed during the late summer/fall 2013 focused surveys performed for the Proposed Project (refer to Appendix 4.4-A: Appendix A). The Proposed Project Survey Area is within the known range of species and suitable nesting and foraging habitat is present throughout the Proposed Project Survey Area.

# California Horned Lark (Erempohila alpestris actia; SSC)

The California horned lark is a CDFW taxa to watch. One of eight subspecies of Horned Lark in California, *E. a. actia* is a resident of the main portion of the San Joaquin Valley as well as cismontane California, primarily from Sonoma County south to northern Baja California, Mexico. This species is a year-round resident of flat arid grasslands, grazed pastures, sandy desert floors and coastal strands throughout its range. Breeding birds nest in open areas on the ground in shallow burrows or depressions, which they select or dig. They also prefer open habitats for short grass or plowed fields for foraging can be among the most abundant of any species in heavily grazed pastures. However, breeding birds require open undisturbed native habitats or fallow fields. Due to its preference of habitat this species is at risk of habitat fragmentation through urban development and agriculture.

The California horned lark has a high potential to nest and winter within the Proposed Project Survey Area, and it was observed during the late summer/fall 2013 focused surveys performed for the Proposed Project (refer to Appendix 4.4-A: Appendix A). The Proposed Project Survey Area is within the known range of species, suitable nesting habitat is present within Proposed Project Survey Area and vicinity, and the species is known to occur within the vicinity of the Proposed Project Survey Area.

# Coastal California Gnatcatcher (Polioptila californica californica; FT, SSC, NCCP)

The coastal California gnatcatcher is a federally listed threatened species, a CDFW species of special concern, and a NCCP-covered species. The California gnatcatcher has one of the most limited distributions of any bird species in North America, limited to specific vegetation communities from coastal southern California to the southern tip of Baja California, Mexico. One of three subspecies, californica, occurs from southern California south to Ensenada in Baja California, Mexico. Once considered conspecific with black-tailed gnatcatcher this species was elevated to full species status in 1988. Fewer than 5,000 pairs of California gnatcatchers are estimated to persist in coastal southern California, where their distribution is mostly restricted to the coastal sage scrub plant community below 1,640 feet amsl. Highest densities occur in Orange and San Diego counties with lower densities in western Riverside County and southwestern San Bernardino County; also isolated populations exist in Los Angeles and Ventura counties. A year-round resident, this species typically breeds from March through July and nests predominantly in California sagebrush (Artemisia californica) and other coastal sage scrub community species in proportion to their availability. This species was listed as federally threatened in 1993 based on the high proportion of its habitat that had been lost to agriculture and urban development and the pressure to develop what remains.

The coastal California gnatcatcher and suitable nesting habitat is present throughout the Proposed Project Survey Area (refer to Appendix 4.4-A: Appendix G). Several pairs and

individuals were detected throughout Proposed Project Survey Area during focused, protocollevel coastal California gnatcatcher surveys conducted within the Proposed Project Survey Area in fall 2013 during non-breeding season, and the species is known to occur within the vicinity of the Proposed Project Survey Area.

#### Southern California Rufous-Crowned Sparrow (Aimophila ruficeps canescens; WL, NCCP)

The southern California rufous-crowned sparrow is a CDFW taxa to watch and a NCCP-covered species. One of four subspecies of rufous-crowned sparrows in California, *A. r. canescens* is a fairly common year-round resident of southwestern California. Its range is restricted to coastal slopes of the Transverse and Peninsular Ranges from northwest Los Angeles County south into northwestern Baja California, Mexico. They prefer fairly steep grassy hillsides with moderate shrub cover, rock outcrops and canyons ranging from elevations of 200 to 4,600 feet amsl. They can also be found breeding in coastal bluff scrub, low-growing serpentine chaparral, and sage scrub on gentle rolling hillsides. Rufous-crowned sparrows thrive in areas that have recently been burned, and will stay in such open, disturbed habitats for years. Several studies have indicated that this species is highly susceptible to habitat fragmentation, an indication that they require large expanses of unbroken native habitat to sustain viable populations. In San Diego this species is fairly common over wide areas suitable habitat.

The southern California rufous-crowned sparrow and suitable nesting habitat is present throughout the Proposed Project Survey Area (refer to Appendix 4.4-A: Appendix A). Several pairs and individuals were detected throughout Proposed Project Survey Area during focused, protocol-level coastal California gnatcatcher surveys conducted in the fall during non-breeding season and the species is known to occur within the vicinity of the Proposed Project.

## Western Bluebird (Sialia mexicana; NCCP)

The western bluebird is a NCCP-covered species. This species breeds in western North America from southern British Columbia and southwestern Alberta south to northern Baja California, Mexico and the Central Volcanic Belt of Mexico, but is largely absent from the Great Basin. In California, the breeding range extends from the Oregon border south in California (except Warner Mountain region) to about Mono, Kern, and Santa Barbara Counties, and from Ventura, Los Angeles, and San Bernardino Counties south through the Transverse and Peninsular ranges of southwestern California to southern San Diego County. This species inhabits pen coniferous and deciduous woodlands; wooded riparian areas; grasslands; farmlands; and burned, moderately logged, and edge areas with scattered trees, snags, or other suitable nest and perch sites. Unlike eastern (*S. sialis*) and mountain (*S. currucoides*) bluebirds, western bluebirds do not favor large, open meadows. Clear-cutting, snag removal, fire suppression, and any changes in land use that cause open forest and edge habitat to be diminished adversely affect western bluebird populations.

The western bluebird is present within the Proposed Project Survey Area (refer to Appendix 4.4-A: Appendix A). The Proposed Project Survey Area is within the known range of the species and suitable nesting habitat exists within the Proposed Project Survey Area and vicinity.

#### Southern Mule Deer (Odocoileus hemionus; NCCP)

The southern mule deer is a NCCP-covered species. Southern mule deer are presently widespread throughout undeveloped portions of San Diego County, ranging from Camp Pendleton to the Laguna Mountains, Sweetwater River, and Otay Lakes at elevations of 400 to 3,600 feet amsl. Resident and migratory populations are present throughout California. This species requires relatively large, undisturbed tracts of chaparral, coastal sage scrub, and mixed grassland/shrub habitats. Breeding usually occurs between November and February, with the fawning period between June and August. The diet of the southern mule deer consists of forbs, grasses, and nuts. Although the species is not threatened with extinction within its range, urbanization and habitat fragmentation could result in local extirpation without appropriate conservation measures.

The southern mule deer is present within the Proposed Project Survey Area (refer to Appendix 4.4-A: Appendix A). Several individuals of this species were observed throughout Proposed Project Survey Area during fall biological surveys and there is suitable habitat present throughout the Proposed Project Survey Area and vicinity.

#### Jurisdictional Delineation of Waters and Wetlands

Wetland and riparian resources are considered sensitive biological resources and are regulated by the USACE, CDFW, RWQCB, and/or CCC pursuant to several federal and state regulations. Table 4.4-5: Summary of Jurisdictional Resources, below, summarizes the jurisdictional resources within the Proposed Project Survey Area by agency. A brief summary of the wetland delineation results is provided below, and a detailed description of each agency's jurisdiction and of the wetland delineation results are provided in Appendix 4.4-A, Appendix H (Jurisdictional Delineation of San Diego Gas & Electric's Sycamore to Peñasquitos 230 Kilovolt Transmission Line Improvements Project, Section 2.0, Regulatory Framework and Section 4.0, Results, respectively).

Jurisdiction	Number of Named Features	Total Area of Jurisdiction (Approx. Acres)	Total Length of Jurisdiction (Approx. Linear Feet)		
USACE	31	9.21	43,952		
RWQCB <sup>1</sup>	36	9.34	47,430		
CDFW	31	14.92	43,953		
CCC	7	1.66	9,396		
Notes: <sup>1</sup> Excludes approximately 1.71 acres (approximately 29,111 linear feet) of exempt MS4 V- ditches and other features.					

 Table 4.4-5: Summary of Jurisdictional Resources

# USACE Jurisdiction

A total of 31 USACE jurisdictional drainage systems were identified within the Proposed Project Survey Area. Of those, two have perennial features, eight have intermittent features, and 21 are ephemeral. All of the vernal pools identified within the Proposed Project Survey Area are isolated and, therefore, are not regulated by USACE following the Rapanos guidelines. Within the Proposed Project Survey Area, USACE jurisdiction totals approximately 9.21 acres, of which approximately 5.15 acres are wetland Waters of the U.S., and approximately 4.06 acres are non-wetland Waters of the U.S.

# RWQCB Jurisdiction

A total of 35 RWQCB jurisdictional features were identified within the Proposed Project Survey Area. The areas under RWQCB jurisdiction include all areas under USACE jurisdiction, described above, as well as erosion control V-ditches, vernal pool complexes, and other isolated waters. RWQCB jurisdiction totals approximately 9.34 acres, of which approximately 5.15 acres are wetland Waters of the State and approximately 4.19 acres are non-wetland Waters of the State. In addition, approximately 1.84 acres classified as exempt V-ditches and erosional features are present within the Proposed Project Survey Area.

# CDFW Jurisdiction

A total of 31 CDFW jurisdictional features were identified within the Proposed Project Survey Area. CDFW jurisdiction extends to the top of the bank of unvegetated streambeds and to the outer drip line of any associated riparian vegetation. CDFW jurisdiction totals approximately 14.92 acres, of which approximately 2.88 acres are unvegetated streambed, and approximately 12.04 acres are riparian vegetation.

# CCC Jurisdiction

A total of seven CCC jurisdictional features were identified within the Proposed Project Survey Area. The areas under CCC jurisdiction include all wetlands (isolated or non-isolated) in the coastal zone and areas designated as ESHAs, as described above. The CCC defines a wetland as land "which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens." The absence of hydrophytic vegetation or hydric soils is not enough to exclude an area from jurisdiction. CCC wetland jurisdiction totals approximately 1.66 acres of wetland habitat and approximately 110.85 acres of ESHA.

# 4.4.4 **Potential Impacts**

Potential impacts to all sensitive biological resources that are known to occur or have a potential to occur within the Proposed Project Survey Area were considered. Because of the schedule constraints associated with the application submittal for the Proposed Project, not all focused surveys for special-status species have been completed. A focused vegetation assessment, focused special-status plant species surveys, and protocol-level nonbreeding coastal California gnatcatcher surveys were completed during late summer/fall 2013; however, because the application submittal deadline for the Proposed Project would occur prior to the spring survey

period, focused surveys that target spring/early summer blooming special-status plant species could not be conducted prior to application submittal. These additional surveys are planned for spring/early summer 2014.

Although additional surveys are planned to evaluate potential impacts associated with the Proposed Project, impacts to all sensitive biological resources that are currently known to occur based on the surveys conducted during the late summer/fall 2013 were evaluated. In addition, potential impacts to special-status plant and wildlife species that have a potential to occur were thoroughly contemplated based on the existing conditions within the Proposed Project Survey Area and historical occurrence data for the vicinity.

The following discussion describes the Proposed Project's potential to impact special-status species and habitat that may occur as a result of construction and operation of the Proposed Project. As part of the Proposed Project description, SDG&E would be operating under its own NCCP, which was established according to the ESA and CESA and the state's NCCP Act. SDG&E will implement the *SDG&E Subregional NCCP* Operational Protocols, habitat enhancement, and mitigation requirements to avoid, minimize, and mitigate potential impacts to ensure the protection and conservation of listed and covered species and their habitats.

In addition, SDG&E will implement the *SDG&E QCB HCP*, which was developed to protect the Quino checkerspot butterfly and its habitat through implementation of both general and Quino checkerspot butterfly-specific operational protocols that were designed to avoid or minimize take of the species. The *SDG&E QCB HCP* and APM BIO-1 have been included to ensure impacts remain less than significant. Under APM BIO-1, all impacts to special-status plant species will be adequately assessed prior to project construction and avoided, minimized, or appropriately mitigated.

The proposed APM is described more fully in Section 4.4.6, Applicant Proposed Measures.

# 4.4.4.1 <u>Significance Criteria</u>

Potential impacts to biological resources are separated into those likely to occur from construction (both short and long term impacts) and those that could occur as a result of operation and maintenance.

Standards of impact significance were derived from Appendix G of the *CEQA Guidelines*. Under these guidelines, the Proposed Project could have a potentially significant impact to biological resources if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
- 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 CDFW or USFWS;

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state HCP.

#### 4.4.4.2 Question 4a - 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 CDFW or USFWS?

## **Construction – Less than Significant**

SDG&E would operate in compliance with all state and federal laws, regulations, and permit conditions. This includes compliance with the federal, state, and local regulations, as described in Regulatory Setting, above. SDG&E would operate under the SDG&E Subregional NCCP, which was developed consistent with the ESA, CESA, and the NCCP Act. This would include compliance with SDG&E Subregional NCCP Section 7.1, Operational Protocols and Section 7.2, Habitat Enhancement Measures Section 7.1, Operational Protocols was designed to avoid and/or minimize impacts to all sensitive resources, whether or not the resource is covered by the SDG&E Subregional NCCP. SDG&E would also operate under the SDG&E QCB HCP, which was developed to protect the Quino checkerspot butterfly and its habitat through implementation of both general and Quino checkerspot butterfly-specific operational protocols that were designed to avoid or minimize take of the species. In addition, SDG&E has included APM BIO-1. Pursuant to APM BIO-1, all impacts to special-status species will be adequately assessed and avoided, minimized, or appropriately mitigated. With implementation of the SDG&E Subregional NCCP, SDG&E QCB HCP and APM BIO-1, all impacts to biological resources associated with the Proposed Project are considered less than significant.

Impacts to sensitive vegetation communities, special-status plant species, special-status wildlife species (including NCCP-covered species), and their habitats could result from the Proposed Project. Construction of the Proposed Project could result in permanent loss of and/or temporary disturbance to sensitive vegetation communities as a result of construction activities. Permanent impacts would include installation of maintenance work pads and the creation of new access roads. Temporary impacts would include material storage and staging yards, stringing sites, structure work areas, guard structures, and underground construction.

SDG&E would avoid and minimize any impacts according to the *SDG&E Subregional NCCP* Section 7.1, Operational Protocols as well as all other conditions outlined in the Proposed Project permits. With the implementation of the *SDG&E Subregional NCCP*, *SDG&E QCB HCP* and APM BIO-1, all permanent and temporary impacts are expected to remain less than significant.

#### Impacts to Vegetation Communities

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

Vegetation mapping for the Proposed Project was conducted during the late summer/fall 2013 based on Holland. Anticipated permanent and temporary impacts that may result from construction of the Proposed Project were calculated and analyzed by using this vegetation map as well as additional information in the *SDG&E Subregional NCCP* Section 3.1, Data Base References. Total anticipated permanent and temporary impacts to vegetation communities are summarized in Table 4.4-6, Potential Vegetation Community Impacts.

NCCP Vegetation Community	Holland Vegetation	Per	manent	Temporary	
	Community/Land Cover Type	Approx. Acres	Approx. Square Feet	Approx. Acres	Approx. Square Feet
	Diegan Coastal Sage Scrub	1.03	44,639	10.26	446,940
Coastal Sage Scrub	Diegan Coastal Sage Scrub – Disturbed	1.02	44,445	10.65	464,082
	Coastal Sage Scrub – Revegetated	0.29	12,396	2.50	109,020
Coastal Sage/Chaparral Mix	Coastal Sage – Chaparral Scrub	0.09	3,805	0.62	26,822
Chaparral	Chamise Chaparral	0.75	32,597	3.31	144,060
	Chamise Chaparral - Disturbed	0.13	5,421	0.42	18,431

Table 4.4-6: Anticipated Impacts by Vegetation Community

NCCP Vegetation Community	Holland Vegetation	Per	manent	Temporary	
	Community/Land Cover Type	Approx. Acres	Approx. Square Feet	Approx. Acres	Approx. Square Feet
	Southern Mixed Chaparral	0.46	20,195	2.47	107,766
Chaparral	Southern Mixed Chaparral – Disturbed			<0.01	150
	Scrub Oak Chaparral	0.24	10,262	1.28	55,596
Constant	Native Grassland	0.17	7,256	0.79	34,584
Grassland	Nonnative Grassland	0.23	9,954	2.46	107,023
Alkali Marsh	Alkali Marsh – Revegetated				
Freshwater Marsh	Freshwater Marsh			<0.01	132
	San Diego Mesa Vernal Pool				
Inland Water	Open Water <sup>1</sup>				
	Southern Riparian Scrub				
Riparian Scrub	Mulefat Scrub				
	Southern Willow Scrub			0.26	11,218
	Tamarisk Scrub				
Coast Live Oak Riparian Forest	Southern Coast Live Oak Riparian Forest			0.01	463

 Table 4.4-6 (cont.): Anticipated Impacts by Vegetation Community

NCCP Vegetation Community	Holland Vegetation	Per	manent	Temporary	
	Community/Land Cover Type	Approx. Acres	Approx. Square Feet	Approx. Acres	Approx. Square Feet
Eucalyptus Forest	Eucalyptus Woodland <sup>1</sup>			0.03	1,075
Disturbed Habitat	Disturbed Habitat <sup>1</sup>	0.19	8,256	4.79	208,785
N/A	Developed Lands <sup>1</sup>	<0.01	111	20.10	875,311
	Ornamental <sup>1</sup>	0.24	10,524	5.70	247,939
	Bare Ground <sup>1</sup>	2.75	119,805	9.39	408,732
TOTAL		7.56 <sup>2</sup>	329,668 <sup>2</sup>	75.03 <sup>2</sup>	3,268,126 <sup>2</sup>
Notes: <sup>1</sup> This classification does not have a Holland Code. <sup>2</sup> Total reflects actual total without rounding error.					

 Table 4.4-6 (cont.): Anticipated Impacts by Vegetation Community

#### Impacts within Preserve Areas

Preserve areas, as defined above, that occur within and immediately adjacent to the Proposed Project Survey Area were considered, and a total of approximately 557.89 acres of designated preserve areas occur within the Proposed Project Survey Area (refer to Appendix 4.4-A: Appendix A). Table 4.4-7: Summary of Impacts within Preserves summarizes the vegetation communities that occur within the preserve areas.

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		Pern	Permanent		Temporary	
NCCP Vegetation Community	Community/Land Cover Type	Approx. Acres	Approx. Square Feet	Approx. Acres	Approx. Square Feet	
	Diegan Coastal Sage Scrub	0.80	34,846	8.13	354,413	
Coastal Sage Scrub	Diegan Coastal Sage Scrub – Disturbed	0.08	3,571	0.27	11,679	
	Coastal Sage Scrub – Revegetated	0.09	3,842	1.23	53,732	
Coastal Sage/Chaparral Mix	Coastal Sage – Chaparral Scrub	0.09	3,805	0.54	23,564	
Chaparral	Chamise Chaparral	0.71	31,205	2.95	128,652	
	Chamise Chaparral - Disturbed	0.05	1,999	0.09	4,108	
	Southern Mixed Chaparral	0.21	9,057	0.95	41,460	
	Southern Mixed Chaparral – Disturbed			<0.01	150	
	Scrub Oak Chaparral	0.24	10,262	1.28	55,586	

 Table 4.4-7: Anticipated Impacts within Preserve Areas

	Hollond Verstetion	Pern	nanent	Ten	Temporary	
NCCP Vegetation Community	Community/Land Cover Type	Approx. Acres	Approx. Square Feet	Approx. Acres	Approx. Square Feet	
Greesland	Native Grassland	0.17	7,256	0.79	34,584	
Grassiand	Nonnative Grassland	0.02	669	1.41	61,507	
Riparian Scrub	Southern Willow Scrub			0.02	847	
Coast Live Oak Riparian Forest	Southern Coast Live Oak Riparian Forest			0.01	463	
Disturbed Habitat	Disturbed Habitat <sup>1</sup>	0.16	6,814	0.63	27,218	
	Developed Lands <sup>1</sup>			5.50	239,501	
N/A	Ornamental <sup>1</sup>	0.19	8,161	2.09	91,098	
	Bare Ground <sup>1</sup>	1.98	86,251	5.26	229,130	
TOTAL		4.76 <sup>2</sup>	207,739 <sup>2</sup>	31.17 <sup>2</sup>	1,357,692 <sup>2</sup>	
Notes: <sup>1</sup> This classification does not have a Holland Code. <sup>2</sup> Total reflects actual total without rounding error.						

Table 4.4-7 (cont.): Anticipated Impacts within Preserve Areas

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 unavoidable impacts within preserve areas to less than significant. These are discussed in further detail in Sections 4.4.4.3, and 4.4.6.1 below.

#### Impacts within ESHAs

ESHAs are specific to the Coastal Zone and are defined as "any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments". Proposed development within and adjacent to an ESHA must be located and designed to prevent significant impacts to the functions and values of the ESHA. ESHAs that occur within and immediately adjacent to the Proposed Project Survey Area were considered, and a total of approximately 110.85 acres of ESHA occur within the Proposed Project Survey Area (refer to Appendix 4.4-A: Appendix A). Table 4.4-8, Anticipated Impacts within ESHAs, below, summarizes the vegetation communities that occur within the ESHAs. It is important to note that all ESHAs are also included in the designated preserve areas discussed above.

NCCP Vegetation Community	Permanent Temporary		Permanent		porary
	Community/Land Cover Type	Approx. Acres	Approx. Square Feet	Approx. Acres	Approx. Square Feet
Coastal Sage Scrub	Diegan Coastal Sage Scrub	0.54	23,675	3.19	139,038
Coastal Sage Scrub	Diegan Coastal Sage Scrub – Disturbed	< 0.01	333		
Coastal Sage/Chaparral Mix	Coastal Sage – Chaparral Scrub	0.03	1,397	0.29	12,793
	Chamise Chaparral	0.12	5,160	0.37	16,195
Chaparral	Southern Mixed Chaparral	0.09	3,977	0.49	21,313
	Scrub Oak Chaparral			< 0.01	331
Grassland	Native Grassland	0.02	889	0.10	4,222
Orassialiu	Nonnative Grassland	0.02	669	0.06	2,733
	TOTAL	1.41 <sup>1</sup>	61,449 <sup>1</sup>	5.54 <sup>1</sup>	241,090 <sup>1</sup>
Notes: <sup>1</sup> Total reflects actual total wit	hout rounding error.				

#### Table 4.4-8: Anticipated Impacts within ESHAs

Because the ESHAs are included in the preserve areas, no additional impacts are anticipated. As such, no additional avoidance, minimization, or mitigation measures would be required; however, a Coastal Development Permit from the City of San Diego (on behalf of the CCC) may be required. With the implementation of the *SDG&E Subregional NCCP*, impacts to ESHAs are anticipated to be less than significant.

## Impacts to Special-Status Plant Species

The potential presence of special-status plant species is based on known recorded occurrences within the region and appropriate habitat present within the Proposed Project area. A total of 75 special-status plant species are known to occur or have a potential to occur within 5 miles of the Proposed Project Survey Area (see Appendix 4.4-A: Appendix D). Of these, 41 special-status species are not expected to occur within or adjacent to the Proposed Project Survey Area. Therefore, no impacts to these species are expected to occur.

The remaining 34 special-status plant species are known to occur or have a potential to occur within the Proposed Project Survey Area. Implementation of the Proposed Project could potentially result in permanent and temporary impacts to these special-status plant species. Based on the results of the late summer/fall 2013 special-status plant species surveys, 12 special-status plant species are known to occur within the Proposed Project Survey Area (refer to Appendix 4.4-A: Appendix E), including San Diego button-celery (*Eryngium aristulatum* ssp. *parishii*; FE, SE, CRPR 1B.1, NCCP), Nuttall's scrub oak (*Quercus dumosa*; CRPR 1B.1), San Diego goldenstar (*Bloomeria clevelandii*; CRPR 1B.1, NCCP), summer-holly (*Comarostaphylis diversifolia* ssp. *diversifolia*; 1B.2), Torrey pine (as planted individuals) (*Pinus torreyana*; CRPR 1B.2, NCCP), spineshrub (*Adolphia californica*; CRPR 2B.1), coast barrel cactus (*Ferocactus viridescens*; CRPR 2B.1, NCCP), San Diego marsh-elder (*Iva hayesiana*; CRPR 2B.2), graceful tarplant (*Holocarpha virgata* ssp. *elongata*; CRPR 4.2), spiny rush (*Juncus acutus* ssp. *leopoldii*; CRPR 4.2), Palmer's sagewort (*Artemisia palmeri*; CRPR 4.2), and San Diego sunflower (*Bahiopsis* [*Viguiera*] *laciniata*; CRPR 4.2).

Of these, four species – Palmer's sagewort, San Diego button-celery, San Diego sunflower, and San Diego goldenstar – occur outside of all proposed permanent and temporary impact areas; therefore, impacts to these species are not anticipated.

An additional species – the Torrey pine – occurs only as ornamental individuals planted for landscaping around the Peñasquitos Substation. As such, impacts to this species would not require any avoidance or minimization measures, and would be less than significant.

The Proposed Project has the potential to result in permanent and/or temporary impacts to the remaining seven species (refer to Appendix 4.4-A: Appendix A). The NCCP covers one of these species, the coast barrel cactus (CRPR 2B.1); however, the NCCP does not cover the other six species, including graceful tarplant (CRPR 4.2), Nuttall's scrub oak (CRPR 1B.1), San Diego marsh-elder (CRPR 2B.2), spineshrub (CRPR 2B.1), summer-holly (CRPR 1B.2), and spiny rush (CRPR 4.2). In addition, potential permanent and temporary impacts to the other 22 special-status plant species that have a potential for occurrence cannot yet be assessed, because only one round of special-status plant surveys has been conducted for the Proposed Project. Additional special-status plant species surveys are planned for spring and summer 2014 (APM BIO-1) and will provide the data necessary to analyze potential permanent and temporary impacts that may result to these species from implementation of the Proposed Project.

SDG&E will implement all applicable measures outlined in the *SDG&E Subregional NCCP* Section 7.1, Operational Protocols to avoid or minimize potential impacts to special-status plant species. For unavoidable impacts, implementation of the measures outlined in the *SDG&E* 

Subregional NCCP Section 7.2, Habitat Enhancement Measures will further reduce impacts to vegetation communities that support special-status plant species. By implementing the *SDG&E* Subregional NCCP and APM BIO-1, SDG&E anticipates that all potential impacts to NCCP-covered special-status plant species will be avoided or minimized. For all potential impacts to special-status plant species that are not covered by the NCCP, SDG&E anticipates that implementing measures consistent with the *SDG&E* Subregional NCCP will also avoid or minimize impacts to those species. However, if impacts to highly sensitive special-status plant species are unavoidable, SDG&E would develop appropriate avoidance, minimization, and/or mitigation measures through discussions with the applicable resource agencies. These avoidance, minimization, and mitigation measures will be outlined in a Mitigation, Monitoring, and Reporting Plan designed for the specific special-status plants species that may be impacted by the Proposed Project and may include, but are not limited to, flagging and avoiding the special-status plant species, minimizing root disturbance, seed collection, soil salvage, and/or transplantation, among others.

Prior to implementation of the Proposed Project, SDG&E would implement APM BIO-1 to ensure that impacts to special-status plant species remain less than significant. These efforts include, but are not limited to, a PSR for all impacts occurring in natural areas, additional focused special-status species surveys (if required), an environmental awareness training program for contractors, biological monitoring of all activities occurring in natural areas, flagging of sensitive habitat for avoidance, and the review and approval by the biological monitor of all activities occurring in sensitive areas where disturbance to habitat may be unavoidable. In addition, per the *SDG&E NCCP Implementing Agreement*, SDG&E is required to prepare and submit an annual report to USFWS and CDFW documenting the amount and type of habitats impacted as well as the activities causing these impacts. To meet this requirement, SDG&E's biological consultant will prepare a PCR detailing the actual impacts caused by the Proposed Project. Through implementation of the *SDG&E Subregional NCCP* and APM BIO-1, impacts to special-status plant species are anticipated to be less than significant.

# Impacts to Special-Status Wildlife Species

The potential presence of special-status wildlife species is based on known recorded occurrences within the region and appropriate habitat present within the Proposed Project area. A total of 98 special-status wildlife species have the potential to occur within 5 miles of the Proposed Project Survey Area (refer to Appendix 4.4-A: Appendix F). Of these, 48 special-status species are not expected to occur within or adjacent to the Proposed Project Survey Area either because there is no suitable habitat present or because they are in the vicinity outside of their "season of concern" (e.g., migrant bird species). Therefore, no impacts to these species are expected to occur.

The remaining 50 special-status wildlife species are known to occur or have a potential to occur within the Proposed Project Survey Area. Of the 50 special-status wildlife species with a potential to occur within the Proposed Project Survey Area, nine were detected during the surveys conducted in the fall 2013 (refer to Appendix 4.4-A: Appendix G), including Belding's orange-throated whiptail (*Aspidoscelis hyperythra beldingi*), Cooper's hawk (*Accipiter cooperii*; WL, NCCP), Vaux's swift (*Chaetura vauxi*; SSC), loggerhead shrike (*Lanius ludovicianus*; SSC), California horned lark (*Erempohila alpestris actia*; SSC), coastal California gnatcatcher (*Polioptila californica californica*; FT, SSC, NCCP), southern California rufous-crowned

sparrow (*Aimophila ruficeps canescens*; WL, NCCP), western bluebird (*Sialia mexicana*; NCCP), and southern mule deer (*Odocoileus hemionus*; NCCP).

SDG&E would utilize and implement the *SDG&E Subregional NCCP* Section 7.1, Operational Protocols to avoid and minimize any impacts to species that are known to occur or have a potential to occur. In addition, SDG&E would utilize and implement the *SDG&E QCB HCP* to avoid and minimize impacts to the Quino checkerspot butterfly and its habitat.

Prior to implementation of the Proposed Project, additional efforts are planned to identify avoidance and minimization measures required to ensure that impacts to special-status wildlife species remain less than significant. These efforts include, but are not limited to, a PSR for all impacts occurring in natural areas, additional focused special-status species surveys (if required), biological monitoring of all activities occurring in natural areas, flagging of sensitive habitat for avoidance, and the review and approval by the biological monitor of all activities occurring in sensitive areas where disturbance to habitat may be unavoidable. In addition, per the *SDG&E NCCP Implementing Agreement*, SDG&E is required to prepare and submit an annual report to USFWS and CDFW documenting the amount and type of habitats impacted as well as the activities causing these impacts. To meet this requirement, SDG&E's biological consultant will prepare a PCR detailing the actual impacts caused by the Proposed Project. Through implementation of the *SDG&E Subregional NCCP* and *SDG&E QCB HCP*, impacts to the special-status wildlife species that are known to occur or have a moderate to high potential to occur within the Proposed Project are anticipated to remain less than significant.

#### Impacts to Special-Status Invertebrate Species

Five special-status invertebrate species are known to occur or have a potential to occur within 5 miles of the Proposed Project Survey Area (refer to Appendix 4.4-A: Appendices A and F). Of these five species, two – Thorne's hairstreak (*Mitoura thornei*) and wandering skipper (*Panoquina errans*) – are not expected to occur. Of the remaining three, one – San Diego fairy shrimp (*Branchinecta sandiegonensis*) – has a high potential for occurrence, and two – Riverside fairy shrimp (*Streptocephalus woottoni*) and Quino checkerspot butterfly (*Euphydryas editha quino*) – have a moderate potential for occurrence.

The NCCP covers the San Diego fairy shrimp and Riverside fairy shrimp, but the NCCP does not permit impacts to vernal pools or their watersheds that may result from construction of new facilities, including both structures and access roads. The Proposed Project has been designed to avoid impacts to fairy shrimp and their habitat, vernal pools, and designated critical habitat. As such, with implementation of the *SDG&E Subregional NCCP*, no impacts to San Diego fairy shrimp, Riverside fairy shrimp, San Diego fairy shrimp critical habitat, or vernal pools are expected to result from implementation of the Proposed Project.

The Quino checkerspot butterfly is covered under the *SDG&E QCB HCP*. The *SDG&E QCB HCP* designates suitable Quino checkerspot butterfly habitat that requires focused surveys or assumed occupancy if timing precludes focused surveys from being performed. The Proposed Project Survey Area is outside of the "Quino Mapped Area" that is designated within the *SDG&E QCB HCP*; therefore, no focused surveys for the Quino checkerspot butterfly are required for the Proposed Project. All impacts to the Quino checkerspot butterfly would be

permitted under the *SDG&E QCB HCP*. With implementation of the *SDG&E QCB HCP*, no additional avoidance or minimization measures are required. As such, impacts to the Quino checkerspot butterfly are anticipated to be less than significant.

#### Impacts to Special-Status Fish Species

Two special-status fish species – southern steelhead (*Oncorhynchus mykiss irideus*) and tidewater goby (*Eucyclogobius newberryi*) – are known to occur within the region (Appendix 4.4-A: Appendices A and F); however, neither of these species is expected to occur within the Proposed Project Survey Area because no suitable habitat is present; and there are no historical records for this species within a 5-mile buffer of the Proposed Project alignment. Therefore, with implementation of the *SDG&E Subregional NCCP*, no impacts to special-status fish species are expected to occur from implementation of the Proposed Project.

#### Impacts to Special-Status Amphibian Species

Six special-status amphibian species are known to occur or have a potential to occur within the vicinity of the Proposed Project Survey Area (refer to Appendix 4.4-A: Appendices A and F). Of these six species, five are not expected to occur, including arroyo toad (*Anaxyrus californicus*), California red-legged frog (*Rana draytonii*), southern mountain yellow-legged frog (*Rana muscosa*), large-blotched ensatina (*Ensatina eschscholtzii klauberi*), and coast range newt (*Taricha torosa torosa*).

One species – western spadefoot (*Spea hammondii*) – has a high potential to occur and is covered by the NCCP. This species is associated with vernal pools and other temporary water areas, similar to the habitats used by the San Diego fairy shrimp, discussed above. Because the Proposed Project was designed to avoid impacts to vernal pools and other fairy shrimp habitat and because there are additional mitigation measures in place for unavoidable impacts to other temporary water areas, impacts to western spadefoot would be less than significant.

SDG&E will implement all applicable measures outlined in the SDG&E Subregional NCCP Section 7.1, Operational Protocols to prevent potential impacts to special-status amphibian 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 pre-construction surveys in suitable habitat, restricting the handling of all wildlife to expert handlers, and having a biological monitor onsite to avoid and minimize impacts to biological resources, such as vegetation communities that have the potential to support these species. In addition, implementation of the measures outlined in the SDG&E Subregional NCCP Section 7.2, Habitat Enhancement Measures, as discussed above in Sensitive Vegetation Community Impacts, will further reduce impacts to habitat for special-status amphibian species. Through implementation of the SDG&E Subregional NCCP, impacts to special-status amphibian species are anticipated to be less than significant.

## Impacts to Special-Status Reptile Species

Twelve special-status reptile species are known to occur or have a potential to occur within 5 miles of the Proposed Project Survey Area (refer to Appendix 4.4-A: Appendices A and F). Of

these, one – California red-sided gartersnake (*Thamnophis sirtalis infernalis*) – is not expected to occur. Therefore, no impacts to this species are anticipated. Of the remaining 11 species:

- Two have a moderate potential for occurrence within the Proposed Project Survey Area
  - western pond turtle (Actinemys marmorata; SSC, NCCP)
  - San Diego banded gecko (*Coleonyx variegatus abbotti*; NCCP)
- Eight have a high potential for occurrence within the Proposed Project Survey Area:
  - California legless lizard (Anniella pulchra; SSC)
  - o coast horned lizard (Phrynosoma blainvillii; SSC, NCCP)
  - o Coronado skink (*Plestiodon skiltonianus interparietalis*; SSC, NCCP)
  - o rosy boa (*Charina trivirgata*; NCCP)
  - o coast patch-nosed snake (Salvadora hexalepis virgultea; SSC, NCCP)
  - o red diamond rattlesnake (*Crotalus ruber*; SSC, NCCP)
  - San Diego ringneck snake (*Diadophis punctatus similis*; NCCP)
  - o two-striped garter snake (*Thamnophis hammondii*; SSC, NCCP)
- One was observed during the fall 2013 surveys conducted for the Proposed Project
  - Belding's orange-throated whiptail (*Aspidoscelis hyperythra beldingi*; SSC, NCCP)

The Proposed Project could result in both permanent and temporary impacts to these specialstatus reptile species. Permanent impacts to these special-status reptile species would include the loss of suitable foraging and breeding habitat resulting from removal of vegetation communities that have the potential to support these species. Temporary impacts to these special-status reptile species would include short-term disturbances to their foraging and breeding behaviors that result from implementation of the Proposed Project. No substantial decrease or increase in perching opportunities for avian species is expected from implementation of the Proposed Project; therefore, potential for predation on both common and special-status reptile species is not expected to change.

Of the 11 special-status reptile species that are known to occur or have a potential for occurrence within the Proposed Project Survey Area, one – the California legless lizard – is not covered by the *SDG&E Subregional NCCP*. Because this species is typically found in riparian areas, and because the Proposed Project was designed to avoid impacts to riparian areas, to the extent feasible, no impacts are expected to the California legless lizard.

The NCCP covers the remaining 10 special-status reptile species that are known to occur or have a potential for occurrence within the Proposed Project Survey Area. All of these species have relatively low sensitivity (e.g., species of special concern and/or NCCP-covered), and impacts would be avoided or minimized to the greatest extent feasible.

SDG&E will implement all applicable measures outlined in the *SDG&E Subregional NCCP* Section 7.1, Operational Protocols to prevent potential impacts to special-status reptile species.

These measures include, but are not limited to, avoiding vehicle collisions with wildlife species to the extent practicable, having a biological monitor onsite to avoid and minimize impacts to biological resources such as vegetation communities that have the potential to support these species. In addition, implementation of the measures outlined in the *SDG&E Subregional NCCP* Section 7.2, Habitat Enhancement Measures, as discussed above in Sensitive Vegetation Community Impacts, will further reduce impacts to habitat for special-status reptile species. Through implementation of the *SDG&E Subregional NCCP*, impacts to special-status reptile species are anticipated to be less than significant.

#### Impacts to Special-Status Avian Species

Fifty-five special-status avian species are known to occur or have a potential to occur within 5 miles of the Proposed Project Survey Area (refer to Appendix 4.4-A: Appendices A and F). Of these, 36 species are not expected to occur or occur outside of their season of sensitivity. Therefore, no impacts to these species are anticipated. Of the remaining 19 species:

- Three have a low potential for occurrence within the Proposed Project Survey Area
  - o ferruginous hawk (*Buteo regalis*; WL, NCCP) (Wintering)
  - o long-eared owl (Asio otus; SSC) (Nesting)
  - o tricolored blackbird (*Agelaius tricolor*; SSC, NCCP) (Nesting colony)
- Six have a moderate potential for occurrence within the Proposed Project Survey Area
  - o northern harrier (Circus cyaneus; SSC, NCCP) (Nesting)
  - white-tailed kite (*Elanus leucurus*; CFP) (Nesting)
  - o merlin (*Falco columbarius*; WL) (Wintering)
  - burrowing owl (*Athene cunicularia*; SSC, NCCP-NE) (Burrow sites and some wintering sites)
  - o least Bell's vireo (Vireo bellii pusillus; FE, SE, NCCP) (Nesting)
  - o coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*; SSC, NCCP-NE)
- Four have a high potential for occurrence within the Proposed Project Survey Area
  - o yellow warbler (*Dendroica petechia brewsteri*; SSC) (Nesting)
  - o yellow-breasted chat (Icteria virens; SSC, NCCP) (Nesting)
  - o grasshopper sparrow (Ammodramus savannarum; SSC, NCCP) (Nesting)
  - o Bell's sage sparrow (Amphispiza belli belli; WL, NCCP)
- Six were observed during the fall surveys conducted for the Proposed Project
  - Cooper's hawk (Accipiter cooperii; WL, NCCP) (Nesting)
  - o loggerhead shrike (*Lanius ludovicianus*) (Nesting)
  - o California horned lark (Erempohila alpestris actia; WL)
- coastal California gnatcatcher (*Polioptila californica californica*; FT, SSC, NCCP)
- southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*; WL, NCCP)
- western bluebird (*Sialia mexicana*; NCCP)

The Proposed Project could result in both permanent and temporary impacts to foraging and/or nesting habitat for the 19 special-status avian species that are known to occur or have a potential to occur within the Proposed Project Survey Area. Permanent impacts may result from the loss of nesting and foraging habitat, including the removal of wood poles that could be used by cavity nesters, as well as the permanent removal of vegetation for installation of new maintenance work pads and new access roads. Temporary impacts may result from increased ambient noise resulting from construction activities as well as temporary loss of vegetation for stringing sites, staging areas, guard structures, and other temporary work areas.

Of the 19 special-status avian species that are known to occur or have a potential to occur within the Proposed Project Survey Area, six are not covered by the *SDG&E Subregional NCCP*. Three of these species – the white-tailed kite, long-eared owl, and yellow warbler – are typically associated with riparian areas. Because the Proposed Project has been designed to avoid impacts to riparian areas to the extent practicable, no impacts to these species are anticipated. If unavoidable impacts are identified, implementation of the *SDG&E Subregional NCCP* would assure that appropriate operational protocols are followed. These may include, but are not limited to, restricting vegetation removal during the breeding season, conducting preconstruction surveys (as needed), and/or having a biological monitor onsite to avoid and minimize impacts to vegetation communities that have the potential to support these species. With implementation of the *SDG&E Subregional NCCP*, these species will be further protected and unavoidable impacts would be reduced to less than significant.

The other three species not covered by the NCCP – the merlin, loggerhead shrike, and California horned lark– are associated with a variety of habitats, including grasslands and agricultural areas. While both permanent and temporary impacts are expected to foraging habitat for these species, these impacts will be reduced to less than significant with the implementation of the *SDG&E Subregional NCCP*.

The NCCP covers the remaining 13 special-status avian species with a potential for occurrence within the Proposed Project Survey Area. Nine of these species have relatively low sensitivity (e.g., species of special concern, watch list, and/or NCCP-covered), and impacts would be avoided or minimized to the greatest extent feasible. Through implementation of the *SDG&E Subregional NCCP*, impacts to these species are anticipated to remain less than significant.

Specific permanent and temporary impacts to the four remaining species – least Bell's vireo, coastal California gnatcatcher, burrowing owl, and coastal cactus wren – were evaluated separately because of their high sensitivity. Potential permanent and temporary impacts to the least Bell's vireo may result from implementation of the Proposed Project. While focused surveys for the least Bell's vireo have not been conducted, the Proposed Project was designed to avoid impacts, to the extent feasible, to the least Bell's vireo and the vegetation communities that

have a potential to support the species. With implementation of the *SDG&E Subregional NCCP*, unavoidable impacts to least Bell's vireo are anticipated to remain less than significant.

Potential permanent and temporary impacts to the coastal California gnatcatcher may result from implementation of the Proposed Project. The coastal California gnatcatcher is known to occur within the Proposed Project Survey Area based on results of the focused, protocol-level, non-breeding season surveys conducted in fall 2013. The Proposed Project was designed to avoid impacts, to the extent feasible, to the coastal California gnatcatcher and vegetation communities that may support the species. With implementation of the *SDG&E Subregional NCCP*, unavoidable impacts to the coastal California gnatcatcher are anticipated to remain less than significant.

Potential permanent and temporary impacts to the burrowing owl would be avoided based on the mitigation requirements for NCCP-covered, narrow endemic species provided in the *SDG&E Subregional NCCP*. The burrowing owl has a moderate potential to occur within the Proposed Project Survey Area; however, there is limited suitable habitat for this species, and it is not expected to nest within the Proposed Project Survey Area based on historical data for the region. Where suitable burrowing owl habitat occurs within the Proposed Project Survey Area, the soils are compact and little rodent (e.g., ground squirrel, rabbit) activity was observed during surveys conducted for the Proposed Project. Therefore, no impacts are expected to occur to the burrowing owl as a result of implementation of the Proposed Project. With implementation of the *SDG&E Subregional NCCP*, unavoidable impacts to the burrowing owl are anticipated to remain less than significant.

Potential permanent and temporary impacts to the coastal cactus wren would be avoided based on the mitigation requirements for NCCP-covered, narrow endemic species provided in the *SDG&E Subregional NCCP*. The coastal cactus wren has a moderate potential to occur within the Proposed Project Survey Area; however, the suitable habitat for this species is localized, and the Proposed Project was designed to avoid impacts to habitat for this species. Therefore, no impacts are expected to occur to the coastal cactus wren as a result of implementation of the Proposed Project. With implementation of the *SDG&E Subregional NCCP*, unavoidable impacts to the coastal cactus wren are anticipated to remain less than significant.

SDG&E will implement all applicable measures outlined in the *SDG&E Subregional NCCP* Section 7.1, Operational Protocols to avoid and/or minimize potential impacts to special-status avian species. These measures include, but are not limited to, restricting vegetation removal during the breeding season, conducting pre-construction surveys in suitable avian habitat during the bird breeding season to avoid impacts to nesting birds, and having a biological monitor onsite to avoid and minimize impacts to biological resources, such as vegetation communities that have the potential to support these species. SDG&E would also remain in compliance with the MBTA for the species discussed above as well as other migratory birds covered by the MBTA that may occur within the Proposed Project Survey Area during the breeding season (January 1 through July 31 for raptors and February 15 through August 31 for other nesting bird species). In addition, implementation of the measures outlined in the *SDG&E Subregional NCCP* Section 7.2, Habitat Enhancement Measures, as discussed above in Sensitive Vegetation Community Impacts, will further reduce impacts to habitat for special-status avian species. Through implementation of the *SDG&E Subregional NCCP*, impacts to special-status avian species are anticipated to be less than significant.

Permanent impacts to avian species covered under the MBTA could occur from potential electrocution from the new transmission line. Electrocution of avian species, especially raptor species with large body sizes and wing spans, can result when an avian species that is perching, landing, or taking flight from a utility pole completes the electrical circuit with wing contact between two conductors. Electrocution of avian species also can result through simultaneous contact with energized phase conductors and other equipment, or simultaneous contact with an energized wire and a grounded wire. In addition to SDG&E's current construction standard, which includes increased phase spacing and cover-ups to reduce avian mortality from electrocution, the Proposed Project would remain in compliance with the Avian Power Line Interaction Committee's (APLIC) Suggested Practices for Avian Protection on Power Lines to reduce the potential for electrocution to both avian and other wildlife species.

Through implementation of the *SDG&E Subregional NCCP* and other measures discussed in this section, impacts to special-status avian species are anticipated to be less than significant.

#### Impacts to Special-Status Mammal Species

Eighteen special-status mammal species are known to occur or have a potential to occur within 5 miles of the Proposed Project Survey Area (refer to Appendix 4.4-A: Appendices A and F). Of these, two – Stephens' kangaroo rat (*Dipodomys stephensi*) and Pacific pocket mouse (*Perognathus longimembris pacificus*) – are not expected to occur because the Proposed Project Survey Area is outside of the known range of these species. Therefore, no impacts to these species are expected to occur. Of the remaining 16 species:

- Two have a low potential for occurrence within the Proposed Project Survey Area
  - o ringtail (Bassariscus astutus; SSC)
  - American badger (*Taxidea taxus*; SSC, NCCP)
- Eight have a moderate potential for occurrence within the Proposed Project Survey Area
  - Mexican long-tongued bat (*Choeronycteris mexicana*; SSC)
  - o pallid bat (*Antrozous pallidus*; SSC)
  - o Townsend's big-eared bat (Corynorhinus townsendii; SSC)
  - spotted bat (*Euderma maculatum*; SSC)
  - western red bat (*Lasiurus blossevillii*; SSC)
  - western mastiff bat (*Eumops perotis californicus*; SSC)
  - o big free-tailed bat (Nyctinomops macrotis; SSC)
  - o mountain lion (*Puma concolor*; NCCP)
- Five have a high potential for occurrence within the Proposed Project Survey Area
  - o San Diego black-tailed jackrabbit (Lepus californicus bennettii; SSC, NCCP)

- Dulzura pocket mouse (*Chaetodipus californicus femoralis*; SSC, NCCP)
- o northwestern San Diego pocket mouse (*Chaetodipus fallax; SSC, NCCP*)
- o San Diego desert woodrat (Neotoma lepida intermedia; SSC, NCCP)
- o southern grasshopper mouse (Onychomys torridus Ramona; SSC, NCCP)
- One was detected during the fall surveys conducted for the Proposed Project
  - o southern mule deer (*Odocoileus hemionus*; NCCP)

The Proposed Project could result in both permanent and temporary impacts to these specialstatus mammal species. Permanent impacts to these special-status mammal species may include the loss of suitable foraging habitat resulting from removal of vegetation communities that have the potential to support these species. Temporary impacts to these special-status mammal species may result from construction noise, lighting, ground vibration, and other short-term disturbances associated with construction-related activities that could result in temporary disruptions to their typical daily foraging activities. No substantial decrease or increase in perching opportunities for avian species is expected from implementation of the Proposed Project; therefore, potential for predation on both common and special-status mammal species is not expected to change.

Of the 16 special-status mammal species that are known to occur or have a potential for occurrence within the Proposed Project Survey Area, eight are not covered by the *SDG&E Subregional NCCP*. Seven of these species are bat species that are considered species of special concern and all have a moderate potential to forage within the Proposed Project Survey Area but no impacts to roosting habitat are expected to occur as a result of implementation of the Proposed Project. The remaining species – the ringtail – is a California fully protected species; it has a very low potential to occur within the Proposed Project Survey Area because marginal habitat is present, none were observed during biological surveys, and the species is not known to occur within the vicinity based on historical records. Therefore, no impacts to ringtail are expected to occur as a result of implementation of the Proposed Project.

The NCCP covers the remaining eight special-status mammal species. SDG&E will implement all applicable measures outlined in the *SDG&E Subregional NCCP* Section 7.1, Operational Protocols to prevent potential impacts to 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 onsite to avoid and minimize impacts to biological resources, such as vegetation communities that have the potential to support these species. In addition, implementation of the measures outlined in the *SDG&E Subregional NCCP* Section 7.2, Habitat Enhancement Measures, as discussed above in Sensitive Vegetation Community Impacts, will further reduce impacts to habitat for special-status mammal species. Through implementation of the *SDG&E Subregional NCCP*, impacts to special-status mammal species are anticipated to be less than significant.

#### Avoidance and Minimization of Impacts to Biological Resources

The Proposed Project has been designed to avoid sensitive habitat areas that may support specialstatus plant species, special-status wildlife species, and/or other sensitive biological resources when possible, including not placing poles in drainage areas, using existing access roads to the greatest extent possible, and placing staging areas, laydown areas, and guard structures outside habitats when feasible. Because the permanent impacts resulting from the Proposed Project are relatively small, and because additional high quality foraging and breeding habitats are located within and adjacent to the Proposed Project Survey Area, wildlife habitat is not expected to be adversely affected.

The temporary impact areas may vary because the positioning of construction vehicles, equipment, and materials cannot be accurately anticipated prior to construction. The locations of the construction vehicles, equipment, and materials are dependent upon the contractor safely performing the work. The impacts from construction vehicles, equipment, and materials staged outside of delineated temporary work areas will be evaluated by the on-site biological monitor prior to their placement. The monitor, as appropriate, will assist crews in placement of construction vehicles, equipment, and materials to avoid and minimize impacts to sensitive habitat types. In addition, in order to maintain a safe working space for crewmembers working directly under poles, construction vehicles, equipment, and materials may need to be staged off of existing access roads and/or outside of delineated temporary work areas. However, the on-site biological monitor will assist crews in locating appropriate staging areas for construction vehicles, equipment, and materials that avoids and minimizes impacts to sensitive habitat types. Any temporary impacts associated with placement of construction vehicles, equipment, and materials will be recorded by the biological monitor and will be included within the project Post Construction Report and will mitigated as necessary, pursuant to the SDG&E Subregional NCCP.

Where avoidance of sensitive habitat areas supporting special-status wildlife species is not possible, or where sensitive habitat areas exist adjacent to Proposed Project work areas, implementation of the *SDG&E Subregional NCCP* and *SDG&E QCB HCP* would ensure these impacts remain less than significant. Compliance with the *SDG&E Subregional NCCP*, which includes avoidance and minimization measures and enhancement for loss of habitat within Preserve areas and ESHAs, would ensure impacts to NCCP-covered species remain less than significant. Similarly, compliance with the *SDG&E QCB HCP*, which includes avoidance and minimization checkerspot butterfly and its habitat as well as habitat restoration, enhancement, and other mitigation for unavoidable impacts, would ensure that impacts to the Quino checkerspot butterfly remain less than significant. Additionally, required pre-activity surveys, pursuant to the *SDG&E Subregional NCCP*, would also confirm the presence or absence of any other special-status species not covered under the *SDG&E Subregional NCCP*. If any non-covered species special-status species are identified during the surveys, compliance with the *SDG&E Subregional NCCP* and *SDG&E QCB HCP*, as applicable, would provide avoidance and minimization of impacts so they remain less than significant.

#### SDG&E Operational Protocols (Incorporated Into Proposed Project Design)

SDG&E has a long history of implementing the SDG&E Subregional NCCP and related operational protocols for projects such as the Proposed Project. 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. Pursuant to the SDG&E Subregional NCCP, the appropriate Operational Protocols for the Proposed Project would be determined and documented by the Environmental Surveyor, which would be the lead natural resources representative from SDG&E, in conjunction with the lead biological resources monitor from the private biological consulting firm contracted for the job.

Typical measures outlined in the *SDG&E Subregional NCCP* Section 7.1, Operation Protocols; Section 7.2, Habitat Enhancement Measures; Section 7.4, Mitigation Credits; and other applicable measures have been incorporated into the Proposed Project design (Section 3.8, above) to ensure impacts to biological resources will remain less than significant.

Similarly, SDG&E has successfully implemented the *SDG&E QCB HCP* for other projects within the region. Both general and Quino checkerspot butterfly-specific operational protocols are outlined in the plan and provide methods to avoid or minimize take of the Quino checkerspot butterfly. Pursuant to *SDG&E QCB HCP*, the Proposed Project will avoid, minimize, or mitigate impacts to the Quino checkerspot butterfly and its habitat through implementation of the *SDG&E QCB HCP* (see Section 4.4.6.2).

#### **Operation & Maintenance – No Impact**

SDG&E currently maintains and operates extensive existing electric transmission, distribution and substation facilities throughout the Proposed Project site. SDG&E's existing operations and maintenance activities constitute the baseline against which the impacts of the Proposed Project are evaluated.

Operations and maintenance activities for the Proposed Project would not materially increase in frequency or intensity. Any future potential maintenance-related construction projects will be evaluated under General Order 131-D and CEQA for purposes of assessing whether further CPUC approval is required and will be conducted in compliance with the *SDG&E Subregional NCCP*. As such, no impacts are anticipated.

#### 4.4.3 <u>Question 4b - Have a substantial adverse effect on any riparian habitat or other</u> sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS?

#### **Construction – Less than Significant**

Impacts to sensitive vegetation communities could result from the Proposed Project. Construction of the Proposed Project could result in permanent loss of and/or temporary disturbance to sensitive vegetation communities. Permanent impacts would include installation of maintenance work pads and the creation of new spur roads. Permanent impacts are anticipated to sensitive upland vegetation communities; however, no permanent impacts are anticipated to riparian habitat. Temporary impacts would include material storage and staging yards, stringing sites, structure work areas, guard structures, and underground construction. Temporary impacts are anticipated to sensitive upland vegetation communities but have been avoided to the extent feasible to riparian habitats. While very small temporary impacts are currently shown to riparian vegetation communities, these impacts would be avoided with guidance from the Environmental Surveyor and/or the lead biological resources monitor during implementation of the Proposed Project.

The *SDG&E Subregional NCCP* allows for impacts to sensitive vegetation communities when incidental to otherwise lawful activities and when conducted in full compliance with the *SDG&E Subregional NCCP*. Compliance with the *SDG&E Subregional NCCP* is designed to avoid impacts whenever possible and to implement protection measures to avoid and minimize take to the maximum extent possible. Therefore, implementation of the *SDG&E Subregional NCCP* would ensure potential impacts to sensitive vegetation communities remain less than significant.

If unavoidable impacts to riparian or other jurisdictional resources are identified during future planning efforts for the Proposed Project, SDG&E would obtain the requisite permit(s) from the applicable regulatory agency and fully comply with all conditions outlined in the permit(s). This would assure that impacts to jurisdictional resources remain less than significant.

Pursuant to the *SDG&E Subregional NCCP*, the Proposed Project has been designed to avoid sensitive vegetation communities when possible by placing poles outside of drainage areas, using existing access roads to the greatest extent possible, and placing any new facilities, staging areas, or access roads outside native vegetation communities, when feasible. Where avoidance of sensitive vegetation communities is not possible or where sensitive habitat areas exist adjacent to Proposed Project work areas, implementation of the *SDG&E Subregional NCCP* will reduce these impacts to less than significant. Figures showing both temporary and permanent construction impacts to vegetation communities are provided in Appendix 4.4-A: Appendix A. These impacts are also summarized in Table 4.4-9: Summary of Anticipated Impacts.

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Type of Impact	Anticipated Resource Impacted	Approx. Acres <sup>2</sup>	Approx. Square Feet <sup>2</sup>
	Anticipated Impacts to Sensitive Vegetation	4.20	1 00070
	lands, disturbed habitat, or ornamental)	4.38	1,90972
Permanent <sup>1</sup>	Anticipated Impacts to Non-Sensitive Vegetation		
	Communities (bare ground, developed lands, disturbed	3.18	138,696
	habitat, and ornamental)		
	Total Anticipated Permanent impacts	7.56	329,668
T	Anticipated Impacts to Sensitive Vegetation Communities (not including bare ground, developed lands, disturbed habitat, ornamental, or eucalyptus woodland)	35.04	1,526,285
Temporary	Anticipated Impacts to Non-Sensitive Vegetation Communities (bare ground, developed lands, disturbed habitat, ornamental, and eucalyptus woodland)	40.00	1,741,841
	Total Anticipated Temporary Impacts	75.03	3,268,126
Notes: <sup>1</sup> Permanent impacts structure and imp <sup>2</sup> Total reflects act	cts to vegetation communities are discussed as construction impacts to lementation of the SDG&E Subregional NCCP.	o be consistent	with the

 Table 4.4-9:
 Summary of Anticipated Impacts

The Proposed Project would permanently impact approximately 4.38 acres of sensitive vegetation communities, including approximately 1.03 acres of Diegan coastal sage scrub, 1.02 acres of disturbed Diegan coastal sage scrub, 0.29 acre of revegetated coastal sage scrub, 0.09 acre of coastal sage – chaparral scrub, 0.75 acre of chamise chaparral, 0.13 acre of disturbed chamise chaparral, 0.46 acre of southern mixed chaparral, 0.24 acre of scrub oak chaparral, 0.17 acre of native grassland, and 0.23 acre of nonnative grassland (refer to Appendix 4.4-A: Appendix A). No permanent impacts would occur to disturbed southern mixed chaparral, revegetated alkali marsh, freshwater marsh, San Diego mesa vernal pool, open water, southern riparian scrub, mulefat scrub, southern willow scrub, tamarisk scrub, southern coast live oak riparian forest, eucalyptus woodland, or developed land.

The Proposed Project would temporarily impact approximately 35.04 acres of sensitive vegetation communities, including approximately 10.26 acres of Diegan coastal sage scrub, 10.65 acres of disturbed Diegan coastal sage scrub, 2.42 acres of revegetated coastal sage scrub, 0.62 acre of coastal sage – chaparral scrub, 3.31 acres of chamise chaparral, 0.42 acre of disturbed chamise chaparral, 2.31 acres of southern mixed chaparral, less than 0.01 acre (approximately 150 square feet) of disturbed southern mixed chaparral, 1.28 acres of scrub oak chaparral, 0.79 acre of native grassland, 2.46 acres of nonnative grassland, less than 0.01 acre (approximately 132 square feet) of freshwater marsh, 0.26 acre of southern willow scrub, and 0.01 acre of southern coast live oak riparian forest (refer to Appendix 4.4-A: Appendix A). No temporary impacts would occur to revegetated alkali marsh, San Diego mesa vernal pool, open water, southern riparian scrub, mulefat scrub, or tamarisk scrub.

Permanent impacts to sensitive vegetation communities resulting from installation of new facilities will be mitigated at a 2:1 ratio for impacts inside preserve areas and at a 1:1 ratio for impacts outside preserve areas, according to the guidelines in the *SDG&E Subregional NCCP* Section 7.4, Mitigation Credits, Table 7.4. Approximately 4.76 acres (207,739 square feet) of permanent impacts are expected within designated preserve areas. These permanent impacts are discussed in detail in Impacts within Preserves and Impacts within ESHAs, above, and are summarized in Table 4.4-10: Summary of Anticipated SDG&E Mitigation, below.

Type of Mitigation	Type of Impact	Location	Mitigation Ratio	Area Impacted (Approx. Acres/Square Feet) <sup>1</sup>	Mitigation Required (Approx. Acres/Square Feet) <sup>1</sup>
Credit	Permanent	Inside a Preserve	2:1	2.44/106,513	4.88/213,025
Withdrawal	Permanent	Outside a Preserve	1:1	1.94/84,460	1.94/84,460
Total Anticipated Credit Withdrawal for Permanent Impacts			6.82/297,485		
Active Enhancement	Temporary	Inside a Preserve	1:1	16.28/709,239	16.28/709,239
Monitoring	Temporary	Inside a Preserve	1:1	1.41/61,507	1.41/61,507
Total Anticipated Enhancement & Monitoring for Temporary Impacts				17.69/770,745	
Notes: <sup>1</sup> Total reflects actual total without rounding error.					

 Table 4.4-10: Summary of Anticipated SDG&E Mitigation

Approximately 1.94 acres (84,460 square feet) of permanent impacts to sensitive vegetation communities are expected outside of designated preserve areas, including impacts to approximately 0.23 acre (9,793 square feet) of Diegan coastal sage scrub, 0.94 acre (40,875 square feet) of disturbed Diegan coastal sage scrub, 0.20 acre (8,554 square feet) of revegetated coastal sage scrub, 0.03 acre (1,392 square feet) of chamise chaparral, 0.08 acre (3,423 square feet) of disturbed chamise chaparral, 0.26 acre (11,138 square feet) of southern mixed chaparral, and 0.21 acre (9,285 square feet) of nonnative grassland.

Based on the anticipated permanent impacts discussed above, SDG&E proposes to withdraw credit from the SDG&E mitigation bank for anticipated permanent impacts to approximately 2.44 acres (approximately 106,513 square feet) of sensitive vegetation communities located within preserve areas at a ratio of 2:1 for a total of approximately 4.88 acres (approximately 213,025 square feet), and for anticipated permanent impacts to approximately 1.94 acres (approximately 84,460 square feet) of sensitive vegetation communities located outside of preserve areas at a ratio of 1:1 for a total of approximately 1.94 acres (approximately 84,460 square feet). Thus, the total anticipated credit withdrawal for permanent impacts resulting from the Proposed Project would be approximately 6.82 acres (approximately 297,485 square feet).

Temporary impacts to sensitive vegetation communities resulting from installation of new facilities will be mitigated at a 1:1 ratio for impacts inside preserve areas. Approximately 17.69 acres (770,745 square feet) of temporary impacts to sensitive vegetation are expected within designated preserve areas. These temporary impacts are discussed in detail in Impacts within Preserves and Impacts within ESHAs, above, and are summarized in Table 4.4-10: Summary of Anticipated SDG&E Mitigation, above. Vegetation restoration methods (i.e., active enhancement and monitoring) and success criteria are presented in the *SDG&E Subregional NCCP* Section 7.2, Habitat Enhancement Measures.

For the Proposed Project, temporary impacts to nonnative grassland within a preserve are not anticipated to require active enhancement. Instead, these areas would be monitored to assure that they return to pre-construction site conditions. For impacts to sensitive vegetation communities other than nonnative grassland, active enhancement measures may be required. To the extent feasible, vegetation trimming and other methods that avoid root disturbance would be used to minimize impacts to these sensitive vegetation communities. Thus, with guidance from the Environmental Surveyor and the lead biological resources monitor, some of the anticipated temporary impacts to sensitive vegetation communities within a preserve (as shown in Table 4.4-10: Summary of Anticipated SDG&E Mitigation, above) may be avoided or minimized so that they may not require active enhancement to recover. If the Environmental Surveyor and/or lead biological resources monitor conditions without active enhancement measures, these areas would be included in the monitoring program instead.

For individual temporary impact areas entered into the SDG&E Enhancement and Monitoring Program that are greater than approximately 500 square feet, any areas not meeting the established 3-year success criteria will require a deduction of SDG&E mitigation credits at a 1:1 ratio. Individual temporary impact areas that are less than approximately 500 square feet per site are not required to meet the 3-year success criteria based on the guidelines provided in the *SDG&E Subregional NCCP* Section 7.2, Habitat Enhancement Measures and do not require credit withdrawal per Section 7.4, Mitigation Credits.

Temporary impacts to sensitive vegetation communities resulting from installation of new facilities that are located outside a preserve area would not require mitigation. Based on the information provided in the *SDG&E Subregional NCCP* Section 7.4, Mitigation Credits, Table 7.4:

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.

For the temporary impacts outside a preserve area that are associated with the Proposed Project, no root disturbance is anticipated because no grubbing and/or grading are planned within temporary work areas. However, if grubbing and/or grading are required, all impacts will be mitigated per the *SDG&E Subregional NCCP* Section 7.4, Mitigation Credits, Table 7.4. The final impacts will be captured in the project PCR.

As a result of implementation of the above measures, potential impacts from construction would be less than significant.

#### **Operation & Maintenance – No Impact**

SDG&E currently maintains and operates extensive existing electric transmission, distribution and substation facilities throughout the Proposed Project site. SDG&E's existing operations and maintenance activities constitute the baseline against which the impacts of the Proposed Project are evaluated.

Operations and maintenance activities for the Proposed Project would not materially increase in frequency or intensity. Any future potential maintenance-related construction projects will be evaluated under General Order 131-D and CEQA for purposes of assessing whether further CPUC approval is required and will be conducted in compliance with the *SDG&E Subregional NCCP*. As such, no impacts are anticipated.

# 4.4.4 Question 4c - Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

#### **Construction – Less than Significant**

The Proposed Project has been designed to avoid impacts, to the extent feasible, to wetlands and non-wetland waters that are regulated by USACE, CDFW, RWQCB, and/or CCC pursuant to the applicable federal and state regulations. While permanent impacts to these resources have been avoided through project design, the remaining very small temporary impacts to wetlands and non-wetland waters occur adjacent to temporary work areas and would be avoided with guidance from the Environmental Surveyor and the lead biological resources monitor during

implementation of the Proposed Project. If unavoidable impacts to these jurisdictional resources are identified during future planning efforts for the Proposed Project, SDG&E would obtain the requisite permit(s) from the applicable regulatory agency and fully comply with all conditions outlined in the permit(s).

Through implementation of the *SDG&E Subregional NCCP* and compliance with all conditions of acquired permits, if necessary, impacts to jurisdictional resources are also anticipated to be less than significant.

#### **Operation & Maintenance – No Impact**

SDG&E currently maintains and operates extensive existing electric transmission, distribution, and substation facilities throughout the Proposed Project site. SDG&E's existing operations and maintenance activities constitute the baseline against which the impacts of the Proposed Project are evaluated.

Operations and maintenance activities for the Proposed Project would not materially increase in frequency or intensity. Any future potential maintenance-related construction projects will be evaluated under General Order 131-D and CEQA for purposes of assessing whether further CPUC approval is required and will be conducted in compliance with the *SDG&E Subregional NCCP*. If necessary, SDG&E would obtain any wetlands permits required to conduct maintenance activities that would impact wetlands.

## 4.4.4.5 Question 4d - 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?

#### **Construction – Less than Significant**

The Proposed Project would not result in significant permanent or temporary impacts to local or regional wildlife movement corridors, including migratory bird routes. The Proposed Project would be located within an existing SDG&E ROW where there are existing transmission lines. Pole and tower structure placement for the Proposed Project would occur in the vicinity of existing structures within the ROW, and – because of their small footprint – would result in minimal loss of protective cover (vegetation), roosts, forage habitat, or movement corridors by maintaining wide natural areas that allow the continued movement of wildlife species. The Proposed Project would also avoid or span existing drainages that often serve as wildlife movement corridors. While local wildlife movement may be temporarily disrupted during construction, no lasting effects are expected that would preclude wildlife from returning once construction is completed. Therefore, impacts to wildlife movement corridors are anticipated to be less than significant.

#### **Operation & Maintenance – No Impact**

SDG&E currently maintains and operates extensive existing electric transmission, distribution and substation facilities throughout the Proposed Project site. SDG&E's existing operations and maintenance activities constitute the baseline against which the impacts of the Proposed Project are evaluated.

Placement of pole and tower structures for the new overhead transmission line would occur in the vicinity of existing structures within the ROW. Because the footprint of these structures is small, the existing wide natural areas within the Proposed Project area would be maintained to allow the continued movement of wildlife species. Once construction is completed, no effects are expected that would preclude wildlife from returning. Therefore, impacts to wildlife movement corridors are anticipated to be less than significant.

#### 4.4.6 <u>Question 4e - Conflict with any local policies or ordinances protecting biological</u> resources, such as a tree preservation policy or ordinance?

#### **Construction – No Impact**

Construction, operation, and maintenance associated with the Proposed Project would not conflict with any local environmental policies or ordinances that protect biological resources. While SDG&E is a public utility regulated by the CPUC and local governments are precluded from regulating public utilities through their zoning laws, land use laws, ordinances, and other police powers (including other NCCPs or HCPs), SDG&E would coordinate with other local entities to describe potential impacts associated with the Proposed Project and explain the proposed avoidance, minimization, and mitigation measures that would be used to reduce impacts to less than significant. Because the intent of the *SDG&E Subregional NCCP*, the *SDG&E QCB HCP*, and these local policies or ordinances is to protect sensitive biological resources, SDG&E anticipates that there would be no conflict with any local policies or ordinances associated with the Proposed Project.

#### **Operation & Maintenance – No Impact**

SDG&E currently maintains and operates extensive existing electric transmission, distribution and substation facilities throughout the Proposed Project site. SDG&E's existing operations and maintenance activities constitute the baseline against which the impacts of the Proposed Project are evaluated.

Operations and maintenance activities for the Proposed Project would not materially increase in frequency or intensity. Standard operational and maintenance activities, such as road grading, tree trimming, structure installation, and replacement and repairs, would not conflict with any local policies or ordinances protecting biological resources.

### 4.4.4.7 <u>Question 4f - Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan?</u>

#### **Construction – No Impact**

The Proposed Project traverses through areas within the City of San Diego MSCP, MHPA, and the *INRMP* for MCAS Miramar. The Proposed Project would occur within the area covered by, and follow the requirements of, the *SDG&E Subregional NCCP*. The *SDG&E Subregional NCCP* contains measures to coordinate with HCP implementing entities and to provide additional mitigation in the event of permanent impacts to HCP/NCCP preserve areas. Therefore, no conflicts are expected with the City of San Diego MSCP, MHPA, or the *INRMP* for MCAS Miramar. The *SDG&E Subregional NCCP* is independent of other NCCP/HCPs and,

therefore, is not dependent upon the implementation of such plans and is not superseded by other plans. SDG&E would coordinate with the appropriate authorities during the Proposed Project approval process to ensure that the impacts, mitigation measures, and operational protocols are implemented for the Proposed Project under the *SDG&E Subregional NCCP*. With the implementation of the *SDG&E Subregional NCCP*, no impacts are expected.

#### **Operation & Maintenance – No Impact**

SDG&E currently maintains and operates extensive existing electric transmission, distribution and substation facilities throughout the Proposed Project site. SDG&E's existing operations and maintenance activities constitute the baseline against which the impacts of the Proposed Project are evaluated.

Operations and maintenance activities for the Proposed Project would not materially increase in frequency or intensity. Any future operations and maintenance activities will be conducted in compliance with the *SDG&E Subregional NCCP*. Standard operational and maintenance activities, such as road grading, tree trimming, structure installation, and replacement and repairs, would not conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan. Therefore there is no impact as a result of operation and maintenance of the Proposed Project.

#### 4.4.5 **Project Design Features and Ordinary Construction/Operating Restrictions**

#### 4.4.5.1 Implementation of the SDG&E Subregional NCCP

The Proposed Project would avoid and minimize impacts to biological resources through implementation of the *SDG&E Subregional NCCP*. The *SDG&E Subregional NCCP* establishes a mechanism for addressing biological resource impacts incidental to the development, maintenance, and repair of SDG&E facilities within the *SDG&E Subregional NCCP* coverage area. The Proposed Project is located within the *SDG&E Subregional NCCP* coverage area.

The *SDG&E Subregional NCCP* includes an ESA Section 10(a) permit and a CESA Section 2081 Memorandum of Understanding (for incidental take) with an Implementation Agreement with the USFWS and CDFW, respectively, for the management and conservation of multiple species and their associated habitats, as established according to the Federal and State ESAs and California's NCCP Act.

The *SDG&E Subregional NCCP Implementing Agreement* confirms that the mitigation, compensation, and enhancement obligations contained in the Agreement and the *SDG&E Subregional NCCP* meet all relevant standards and requirements of the California ESA, the Federal ESA, the NCCP Act, and the Native Plant Protection Act with regard to SDG&E's activities in the *SDG&E Subregional NCCP* Area. Pursuant to the *SDG&E Subregional NCCP*, the following activities have been conducted or are planned prior to implementation of the Proposed Project:

• SDG&E conducted pre-construction studies for all activities occurring off of existing access roads in natural areas.

- Prior to implementation of the Proposed Project, an independent biological consulting firm will survey all Proposed Project impact areas and prepare a PSR outlining all anticipated impacts related to the Proposed Project.
- The Proposed Project will include monitoring for all project components, as recommended by the PSR and outlined in the *SDG&E Subregional NCCP*, as well as other avoidance and minimization measures outlined in the *SDG&E Subregional NCCP's Operational Protocols*. The PSR will be submitted to the CDFW and USFWS for review and comment.
- Prior to the commencement of construction, a verification survey of the Proposed Project disturbance areas may be required by the *SDG&E Subregional NCCP*. Biological monitors will be present during construction to assure implementation of the avoidance and minimization measures outlined in the PSR.
- If the previously delineated work areas must be expanded or modified during construction, the biological monitors will survey the additional impact area to determine if any sensitive resources will be impacted by the proposed activities, to identify avoidance and minimization measures, and to document any additional impacts.
- Any additional impacts are included in a Post-Construction Report (PCR) for purposes of calculating the appropriate mitigation, which generally includes site enhancement or credit withdrawal from the SDG&E mitigation bank. When construction is complete, the biological monitor will conduct a survey of the entire line to determine actual impacts from construction. The PCR will determine how much site enhancement and credit withdrawal from the SDG&E mitigation bank will be required to address impacts from project related activities. These impact and mitigation credit calculations are submitted to the USFWS and the CDFW as part of the NCCP Annual Report pursuant to requirements of the NCCP and the NCCP Implementing Agreement.
- Specific operating restrictions that are incorporated into the Proposed Project design to comply with the *SDG&E Subregional NCCP* include the following:
  - Vehicles would be kept on access roads and limited to 15 miles per hour (Section 7.1.1, 1).
  - No wildlife, including rattlesnakes, may be harmed, except to protect life and limb (Section 7.1.1, 2).
  - Feeding of wildlife is not allowed (Section 7.1.1, 4).
  - No pets are allowed within the ROW (Section 7.1.1, 5).
  - Plant or wildlife species may not be collected for pets or any other reason (Section 7.1.1, 7).
  - Littering is not allowed, and no food or waste would be left on the ROW or adjacent properties (Section 7.1.1, 8).
  - Measures to prevent or minimize wild fires would be implemented, including exercising care when driving and not parking vehicles where catalytic converters can ignite dry vegetation (Section 7.1.1, 9).

- Field crews shall refer all environmental issues, including wildlife relocation, dead or sick wildlife, or questions regarding environmental impacts to the Environmental Surveyor. Biologists or experts in wildlife handling may be necessary to assist with wildlife relocations (Section 7.1.1, 10).
- All SDG&E personnel would participate in an environmental training program conducted by SDG&E, with annual updates (Section 7.1.2, 11).
- The Environmental Surveyor shall conduct preactivity studies for all activities occurring in natural areas, and will complete a preactivity study form including recommendations for review by a biologist and construction monitoring, if appropriate. The form will be provided to CDFW and USFWS but does not require their approval (Section 7.1.3, 13).
- The Environmental Surveyor shall flag boundaries of habitats to be avoided and, if necessary, the construction work boundaries (Section 7.1.3, 14).
- The Environmental Surveyor must approve of activity prior to working in sensitive areas where disturbance to habitat may be unavoidable (Section 7.1.4, 25).
- In the event SDG&E identifies a covered species (listed as threatened or endangered by the federal or state) within the temporary work area (10-foot radius) surrounding a power pole, SDG&E would notify the USFWS (for ESA-listed plants) and CDFW (for CESA-listed plants) (Section 7.1.4, 28).
- The Environmental Surveyor shall conduct monitoring as recommended in the preactivity study form (Section 7.1.4, 35.).
- Supplies, equipment, or construction excavations where wildlife could hide (e.g., pipes, culverts, pole holes, trenches) shall be inspected prior to moving or working on/in them (Section 7.1.4, 37 and 38). Fugitive dust will be controlled by regular watering and speed limits (Section 7.1.4, 39).
- During the nesting season, the presence or absence of nesting species (including raptors) shall be determined by a biologist who would recommend appropriate avoidance and minimization measures (Section 7.1.6, 50).
- Maintenance or construction vehicle access through shallow creeks or streams is allowed. However, no filling for access purposes in waterways is allowed (Section 7.1.7, 52).
- Staging/storage areas for equipment and materials shall be located outside of riparian areas (Section 7.1.7, 53).

#### 4.4.5.2 Implementation of SDG&E QCB HCP

The Proposed Project will avoid, minimize, or mitigate impacts to the Quino checkerspot butterfly and its habitat through implementation of the *SDG&E QCB HCP*. The *SDG&E QCB HCP* provides a mechanism for addressing Quino checkerspot butterfly impacts incidental to ongoing operations and maintenance activities as well as construction of new facilities within the *SDG&E QCB HCP* coverage area, including specified areas within San Diego, Riverside, and Orange counties. The Proposed Project is located within the SDG&E QCB HCP coverage area.

The *SDG&E QCB HCP* was developed in consultation with the USFWS pursuant to Section 10(a)(1)(A) of the ESA. The *SDG&E QCB HCP* serves as the ESA Section 10(a) permit by supplementing the *SDG&E Subregional NCCP* with additional general and Quino checkerspot butterfly-specific operational protocols to aid in the management and conservation of the Quino checkerspot butterfly.

Potential Quino checkerspot butterfly habitat that occurs within the *SDG&E QCB HCP* coverage area was identified and is referred to in the *SDG&E QCB HCP* as "Quino Mapped Area". The Proposed Project is located completely outside of the "Quino Mapped Area"; therefore, SDG&E does not anticipate that additional measures will be required to comply with the *SDG&E QCB HCP*. However, all future Proposed Project planning efforts and alignment alterations will be analyzed to verify that the Proposed Project remains outside of the "Quino Mapped Area". If any portion of the Proposed Project is determined to be within the "Quino Mapped Area", then all protocols as well as avoidance, minimization, and mitigation measures specified in the *SDG&E QCB HCP* will be followed.

With implementation of the project design features and ordinary construction/operating restrictions (as outlined within Section 3.8) including the *SDG&E Subregional NCCP* and *SDG&E QCB HCP* described above, potential impacts relating to biological resources will remain less than significant.

#### 4.4.6 Applicant Proposed Measures

Implementation of the following proposed APM will assure that impacts resulting from the Proposed Project remain less than significant.

#### 4.4.6.1 <u>APM BIO-1: Special-Status Plant Species</u>

Implementation of the following measures will ensure impacts to special-status plant species remain less than significant:

- Prior to construction, SDG&E shall retain a qualified biologist to conduct focused, special-status plant surveys during the spring and summer 2014 in all habitats that may support the special-status plant species with a potential to occur in the Proposed Project Survey Area.
- Locations of special-status plants shall be identified and inventoried.
- The qualified biologist shall supervise construction activities within the vicinity of areas identified as having special-status plant species.
- Impacts to special-status plant species shall be avoided to the maximum extent possible by installing fencing or flagging, marking areas to be avoided in construction areas, and limiting work in areas identified as having special-status plant species to periods of time when the plants have set seed and are no longer growing.

• Where impacts to special-status plant species are unavoidable, the impact shall be quantified and compensated though off-site land preservation, plant salvage, transplantation, or other appropriate methods as determined by the qualified biologist. Alternatively, if the special-status plant species in question is a SDG&E Subregional NCCP covered species, mitigation consistent with measures established in the NCCP and discussed in APM BIO-1, above, shall be provided.

#### 4.4.7 Detailed Discussion of Significant Impacts

No significant impacts are expected to occur from implementation of the Proposed Project. Potential impacts to biological resources would be less than significant through the avoidance of resources, application of protective measures and mitigation in the *SDG&E Subregional NCCP*, and habitat enhancement, which have been incorporated as part of the Proposed Project description.

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<sup>&</sup>lt;sup>1</sup> Key references used to prepare Section 4.4 of the PEA are included below. Please refer to Appendix 4.4-A for a complete list of biological resources references.

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Would	the project:	Potentially Significant Impact	Potentially Significant Unless APMs Incorporated	Less than Significant Impact	No Impact
a.	Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?		N		
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?		N		
c.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		N		
d.	Disturb any human remains, including those interred outside of formal cemeteries?			V	

#### 4.5 CULTURAL RESOURCES

#### 4.5.1 Introduction

This section of the PEA describes the archaeological, historical, and paleontological resources identified within the Proposed Project area, and identifies potential impacts that could result from construction, operation, and maintenance of the Proposed Project. This section reviews the Proposed Project in accordance with local, state and federal laws and regulations that protect cultural resources and articulates avoidance and minimization measures that will be implemented. Implementation of APMs will ensure that any potential impacts that could affect cultural and paleontological resources would be reduced to a less than significant level. Components of the Proposed Project that could affect cultural and paleontological resources include but are not limited to: removal of existing poles/structures and transmission line; construction of new poles and stringing of new power lines; construction of underground transmission line in Carmel Valley Road; substation alterations; grading access roads or work pads; and clearing and use of stringing sites, guard structures, staging yards, or helicopter incidental landing areas.

Cultural resources as defined in CEQA include prehistoric and historic period archaeological sites, districts, and objects, historic buildings, structures, and traditional/cultural sites or the locations of important historic events. Cultural resources were identified during the literature and records search within the Proposed Project Area of Potential Effect (APE), including prehistoric and historic archaeological sites and isolates. Not all known sites were re-located during the survey, but those that were re-located will be avoided and/or demarcated. Impacts to previously documented and undiscovered cultural resources resulting from the Proposed Project will be less than significant as the Proposed Project has been designed to avoid cultural resources and implementation of SDG&E's APMs will minimize potential impacts to a less than significant level to cultural resources that may be inadvertently discovered.

In addition to cultural resources, there are also eight known fossil localities within 1 mile of the Proposed Project alignment. The Proposed Project alignment is underlain by several geologic

formations, the Friars, Scripps, Mission Valley and the Ardath Shale, which have a high sensitivity and potential for paleontological resources. With the implementation of APMs, potential impacts to cultural and paleontological resources that may result from the Proposed Project would remain less than significant.

#### 4.5.2 Methodology

#### 4.5.2.1 <u>Cultural Resources Records Search</u>

Cultural resources information for existing conditions in the Proposed Project area was obtained from the California Historic Resources Information System (CHRIS). The CHRIS maintains regional offices that manage cultural resource records for known cultural resource locations and related technical studies. The regional office for San Diego County is the South Coastal Information Center (SCIC) housed at San Diego State University. SDG&E conducted the record search under contract to SCIC and provided to Petra Resource Management (PRM) in August 2013. Sources reviewed consisted of all recorded archaeological and historic site records, and cultural resource reports within a 0.5-mile radius of the Proposed Project area. Additional resources that were consulted for relevant information included the National Register of Historic Places (NRHP), the Historic Property Data File, the California Register, the California Historical Landmarks, the California Inventory of Historic Resources, the California Points of Historical Interest, and historic maps. A cultural resources survey report was prepared for the Proposed Project and has been included as Attachment 4.5-A; *Inventory of Cultural Resources along San Diego Gas & Electric's Proposed Sycamore to Peñasquitos 230 Kilovolt (kV) Transmission Line Project, San Diego, California.* 

#### 4.5.2.2 <u>Native American Scoping</u>

PRM submitted a request for information in the Sacred Lands file database NAHC on October 1, 2013 in order to acquire more information about potential cultural resources located in or near the Proposed Project area,. The NAHC responded on October 3, 2013 and indicated that there are no Native American traditional cultural places recorded in the NAHC Sacred Lands file within a 0.5 mile of the Proposed Project area. The NAHC also enclosed a list of 20 Native American individuals and/or organizations that might have further knowledge of cultural resources in or near the Proposed Project area. PRM sent letters to the Native American individuals and/or organizations on November 6, 2013. At this time, there has been no response.

#### 4.5.2.3 <u>Cultural Resources Field Survey Methods</u>

The purpose of the cultural resource field surveys was to relocate and update any previously recorded cultural resources, as well as to check for the presence/absence of any cultural resources on any previously unsurveyed portions of the Proposed Project area. PRM conducted cultural resources field surveys of the Proposed Project alignment within a 500-foot corridor. Only two of the five staging areas, Stonebridge and Stowe, were surveyed due to access limitations. Multiple stringing site and pull areas were surveyed as part of this effort. PRM's cultural field surveys occurred October 1, through October 16, 2013. ASM Affiliates, Inc. (ASM) surveyed portions of the Proposed Project area in 2012 (portions of Tie Line 6961 within MCAS Miramar) (Williams and Cordova, 2012). Additionally, AECOM also surveyed an overlapping area in 2012 (Bowden-Renna, 2012). These previously surveyed areas were not

resurveyed. All survey gaps were surveyed or addressed as part of the 2013 effort for the Proposed Project.

The field survey consisted of approximately 390 acres of intensive pedestrian survey and 464 acres of directive survey, which consisted of developed areas (residential and commercial structures, roads, etc.). Areas with a low potential for cultural resources due to slopes greater than 25 percent or areas that are inaccessible because of dense brush or ground cover were addressed by a directed survey strategy. This focused on ridges; midslope terraces; rock outcrops that may contain rockshelters, caches, or rock art; and watercourses where isolated milling stations and task-specific sites may be located. In locations where sites had been previously recorded, transect spacing was decreased to 5 meters, and, when a previously recorded site could not be re-identified, the survey radius was extended an additional 50 meters. Previously recorded sites on MCAS Miramar were not revisited as part of this study. A 90-meter buffer for each pole location was used because the largest of the preliminary work space locations are projected at that distance. Evidence for buried cultural deposits was opportunistically sought through the inspection of natural or artificial erosional exposures and the spoils from rodent burrows. The pedestrian surveys complied with the California Office of Historic Preservation (OHP) instructions for recording cultural resources. All prehistoric and historic sites, both newly discovered and previously recorded (if re-identified in the field), were recorded. No artifacts were collected during the surveys. The Archaeological Survey Report can be found in Appendix 4.5-A.

#### 4.5.2.4 <u>Paleontological Resources</u>

The SDNHM Department of Paleontology conducted a literature and record search on October 10, 2013. The Proposed Project and a 0.25 mile radius were searched for fossil localities. Relevant published geologic maps and reports, unpublished paleontological reports and unpublished museum collection locality data were reviewed. A previous record search covered portions of the alignment dated March 12, 2012 for the Transmission Line 6961 Sycamore to Bernardo Project. Site records document 59 fossil localities within the 0.25 mile radius, with eight of these occurring directly within the Proposed Project alignment boundary. The paleontological record search results letters can be found in Appendix 4.5-B.

#### 4.5.3 Existing Conditions

#### 4.5.3.1 <u>Regulatory Setting</u>

#### Federal Regulations

#### National Historic Preservation Act

Enacted in 1966, the National Historic Preservation Act (NHPA), 16 U.S.C., Section 470 et seq., has become the foundation and framework for historic preservation in the United States. The NHPA authorizes the Secretary of the Interior to expand and maintain a NRHP, establishes an Advisory Council on Historic Preservation as an independent federal entity, requires federal agencies to take into account the effects of their undertakings on historic properties, affords the Advisory Council on Historic Preservation a reasonable opportunity to comment on any undertaking that may affect historic properties listed, or eligible for listing, in the NRHP, and

makes the heads of all federal agencies responsible for the preservation of historic properties owned or controlled by their agencies.

Section 106 of the NHPA governs federal agencies' obligations for cultural resources. The goal of the Section 106 process is to offer a measure of protection to sites that are determined eligible for listing on the NRHP. The criteria for determining National Register eligibility are found in 36 CFR Part 60.

#### Native American Graves Protection and Repatriation Act

For activities on federal lands, the Native American Graves Protection and Repatriation Act (NAGPRA), enacted in 1990, provides a framework for determining the rights of lineal descendants and Native American tribes to repatriate Native American remains, funerary objects, sacred objects, or other objects of cultural patrimony with which they are associated. NAGPRA applies to items found on federal lands, and agencies that obtain federal funding. It requires consultation with "appropriate" Indian tribes prior to the intentional excavation, or removal after inadvertent discovery, of several kinds of cultural items, including human remains and objects of cultural patrimony.

#### Paleontological Resource Preservation Act

On March 30, 2009, the Paleontological Resources Preservation Act, 16 U.S.C. 470aaa (PRPA) became law. This requires the Secretaries of the Interior and Agriculture to manage and protect paleontological resources on Federal lands using scientific principles and expertise. New policies from these agencies regarding paleontological resources are in progress.

#### **State Regulations**

#### California Environmental Quality Act

CEQA requires that impacts to cultural resources be identified and, if impacts will be significant, that mitigation measures be implemented to reduce those impacts to the extent feasible. In the protection and management of the cultural environment, both the statute and its *CEQA Guidelines* provide definitions and standards for cultural resources management. Pursuant to Guideline 15064.5(a), the term "historical resource" includes:

- (1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources.
- (2) A resource included in a local register of historical resources,... or identified as significant in a historical resource survey... shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- (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 may be considered to be a historical resource, provided the lead agency's determination is supported by

substantial evidence in light of the whole record. Generally, a cultural resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources, including the following:

- a. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- *b* Is associated with the lives of persons important in our past;
- c. 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
- *d. Has yielded, or may be likely to yield, information important in prehistory or history.*
- (4) The fact that a resource is not listed in, or determined to be eligible for listing in, the California Register of Historical Resources (CRHR), not included in a local register of historical resources, or identified in a historical resources survey does not preclude a lead agency from determining that the resource may be a historical resource.

As defined in Section 21083.2(g) of CEQA, 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:

- (1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- (2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- (3) Is directly associated with a scientifically recognized important prehistoric or historical event or person.

Section 15064.5(c)-(3) of the *CEQA Guidelines* explains that effects on cultural properties that qualify as historical resources or unique archaeological resources would be considered adverse if they involve physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource would be materially impaired.

The statutes and guidelines cited above specify how cultural resources are to be analyzed for projects subject to CEQA. Archival and field surveys must be conducted, and identified cultural resources must be inventoried and evaluated in prescribed ways.

#### California Native American Graves Protection and Repatriation Act

The California Native American Graves Protection and Repatriation Act (Cal NAGPRA) of 2001 is contained in the California Health and Safety Code Sections 8010-8021, and 8025-8030. Cal NAGPRA provides for the repatriation of human remains and cultural items in the possession or control of a state or local agency or museum to the rightful California Native American tribe.

This law defines the term California Native American tribe to include non-federally recognized groups.

#### California Public Resources Code

Provisions can be found under the PRC regarding the treatment of human remains. These provisions are detailed in Section 5097.9 through 5097.996. These sections explain the actions to be taken when Native American remains are found. Section 7050.5 of the California Health and Safety Code states that anyone who knowingly disinters, disturbs, or willfully removes any human remains in or from any location other than a cemetery without the authority of law is guilty of a misdemeanor, except those circumstances as described in Section 5097.99 of the PRC. Under these provisions, if a county coroner determines that remains found during excavation or disturbance of land are Native American, the coroner must contact the NAHC within 48 hours, and the NAHC must determine and notify a Most Likely Descendent (MLD) who shall complete inspection of the site within 24 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

#### Local Regulations

#### City of San Diego

The City of San Diego regulations and policies pertaining to cultural resources can be found in the Historic Preservation Element of the *City of San Diego General Plan*. The City Council adopted the current version of the *City of San Diego General Plan* on March 2008.

The City of San Diego Municipal Code Chapters 11, 12 and 14 establish a Historical Resources Board and regulations for historical resources. These regulations are intended to protect, preserve, and where damaged, restore the historical resources of San Diego. The regulations require that designated historical resources, important archaeological sites, and traditional cultural properties be preserved unless deviation findings can be made as part of a discretionary permit. Along with the Municipal Code, the General Plan has policies in place to protect cultural resources. The City has developed the following policies geared toward the preservation, protection and consideration of cultural resources to help ensure the protection of the City's resources:

- Strengthen historic preservation planning.
- Fully integrate the consideration of historical and cultural resources in the larger land use planning process.
- Foster government-to-government relationships with the Kumeyaay/Diegueno tribes of San Diego.
- Actively pursue a program to identify, document and evaluate the historical and cultural resources in the City of San Diego.
- Designate and preserve significant historical and cultural resources for current and future generations.

City of Poway

The City of Poway regulations and policies pertaining to cultural resources can be found in the Resources Element under Prehistoric and Historic Resources Element of the *City of Poway Comprehensive Plan*. The City of Poway adopted the current version of the *City of Poway Comprehensive Plan* on November 19, 1991 as resolution #91-131.

Policies D and E discuss cultural resources in the Resources Element. Policy D states that archaeological resources are an important part of the city's heritage and should be preserved and protected. Policy E relates to historic resources and states that the historical structures that remain in Poway contribute significantly to the rural small town character of the community and should be preserved. Both policies have strategies to help in the preservation, and protection of cultural resources.

#### 4.5.3.2 <u>Cultural Setting</u>

#### **Historic Overview**

#### Prehistoric Background

There is little evidence of early human occupation of southern California. A few sites have yielded artifacts that may date to the Clovis era (circa 11,000 years before present [B.P.]), and the oldest reliable dates for occupation come from Daisy Cave on San Miguel Island. Dates from this site indicate that the islands (and, therefore, probably the coast) were occupied as early as 11,600 to 11,000 B.P. Radiocarbon dates as old as 10,000 to 9,000 B.P. have been reported from coastal sites.

This early culture represents the post-Pleistocene adaptation to big game hunting of large mammals, possibly even members of the late Pleistocene megafauna such as mammoth, although direct evidence of this type of aboriginal megafauna exploitation is lacking from mainland southern California. Although it is reasonable to assume that vegetable foods were an important part of the diet, a lack of ground stone artifacts indicates that hard seeds were not routinely exploited. This early hunting tradition came to an end around 6,000 B.P. This is probably due to the advent of much warmer and drier times associated with the Altithermal, which led to a shift in subsistence strategies focused on plants and small game. However, regional and sub-regional variation and adaptation of toolkits, residence patterns, and resources exploited appears to have been the rule.

The following period, termed the Millingstone Substratum or the La Jolla/Pauma Complexes, dates from approximately 8,000 B.P. to 3,000 B.P. This horizon marks the technological advancements of seed grinding for flour as a staple of diet. This period has traditionally been thought of as the beginning of large-scale marine fauna exploitation, but recent research indicates marine fauna were probably an important part of the diet in earlier times. Diagnostic artifacts for this tradition include manos, metates, scraper planes, choppers, core tools, doughnut stones, discoidals, and cogstones. This period includes archaeological cultures/complexes such as Pauma, La Jolla, Topanga, Oak Grove, and Sayles. This period was not homogeneous across either time or space, and was characterized by adaptation to changing environments on both the regional and sub-regional scales.

The Pauma Complex, first identified by Delbert L. True, was primarily restricted to the areas east of Escondido in the peninsular ranges of northern San Diego County. It appears to have been a millingstone complex based on a hunting and seed-gathering economy. This complex, dated to around 8,000 B.P., is characterized by an assemblage of San Dieguito-like crescents, leaf-shaped points, La Jollan millingstone artifacts, core scrapers, and stone discoidals. It is not known whether the Pauma Complex was an inland variant of the coastal La Jolla Complex, or represents seasonal inland encampments and adaptations of coastal groups, though recent studies have suggested that permanent inland and interior populations were more common than has traditionally been thought. It was also during this time that geographically expansive trade networks began to appear, with shell beads generated on the Channel Islands during this period being found as far away as Oregon.

The late Middle Holocene of San Diego County has not been well understood, with Moratto stating that there may have been a hiatus or reduction in occupation from 3,000 B.P. to 1,500 B.P. It is unlikely that the interior was abandoned completely, and it may be the case that interior adaptations were similar enough to those of the previous or later periods that they seem "invisible" in the archaeological record, or that occupation of the interior followed an ephemeral pattern that is not easily "seen" through the archaeological record.

The Late Prehistoric period began around 1,000 B.P. and continued until European contact. The period is characterized by three basic shifts in the economy: (a) intensification of land-based collecting and diversification of foods collected, (b) collection at specifically targeted shellfish resource areas and diversification of shellfish collected, and (c) the development or intensification of a quasi-maritime economy. Archaeologically the period is characterized by the introduction of the mortar and pestle, projectile points associated with bow and arrow technology, cremations, and the introduction of pottery around 1,000 B.P. The late period is represented by the San Luis Rey Complex, which is divided into stages I (550-200 B.P.) and II (200-100 B.P.). The complex was first proposed by Meighan based on his work at CA-SDI-132.

Archaeologically, the San Luis Rey Complex represents a termination of most of the millingstone practices in favor of greater reliance on acorn exploitation and establishment of semi-permanent villages in centralized resource locations. Small satellite camps surrounding the villages served as strategic foraging locations, allowing a flexible and varied resource base. San Luis Rey I assemblages are characterized by millingstones, bedrock mortars, cremations and small triangular points. San Luis Rey II contains all those plus pottery, cremation urns and, after contact, glass beads and metal knives.

The Late Prehistoric period essentially ended with Spanish colonization and establishment of the missions. Disease and forced relocation, which reduced the populations considerably among the coastal settlements, did much to destroy the cultural pattern established during that period.

#### Historic Background

The first Europeans to explore future California were in the 1542 expedition of Juan Rodriguez Cabrillo. It is possible that the Santa Maria Valley (Ramona area) near the Proposed Project could have been first visited in 1769 by Gaspar de Portola, as he led a 62-person expedition from San Diego to Monterey.

The closest mission to the Proposed Project area is the Mission San Luis Rey, which was founded in 1798 under the supervision of Padre Presidente Fermin Francisco de Lasuen. The mission inducted large numbers of mountain Indians. In 1818, the Santa Ysabel mission outpost (*asistencia*) was established several miles north of the Santa Maria Valley near the present day community of Santa Ysabel.

In 1833, during the secularization process, Narcisco Botello, a Mexican soldier, received the Santa Maria land grant. He was unsuccessful at ranching, and abandoned the land. In 1843, the grant was passed to Jose Joaquin Ortega and his son-in-law, Captain Edward Stokes.

In 1872, Adolfo Stokes sold all but 1,000 acres to Juan Arrambide. Arrambide and French immigrant Bernardo Etcheverry developed the valley in fruit orchards, vineyards, and grain fields, and ran a prosperous sheep operation on several thousand acres in Santa Maria Valley.

A steady flow of settlers came to southern California during the 1880s and 1890s; this included the Santa Maria Valley. The Santa Maria land grant was sold off in large and small parcels to various land speculators, and homesteaders. The area continued to grow gradually, with the predominant emphasis on turkey ranches, beehives and horse stables. From 1930 to the early 1970s, Santa Maria Valley and Ramona itself were known as the "Turkey Capital" of the world. The area has continued to grow with urban developments over the last several decades.

#### Ethnographic Overview

At the time of European contact, the Proposed Project area was occupied by the Kumeyaay (also known as Kamia, Ipai, Tipai, and Diegueño), a Yuman speaking people. The Kumeyaay ranged from the San Diego coastal region east to beyond the Salton Sea and south to beyond Ensenada in Mexico, the northern extents included Mount Palomar. They lived in semi-sedentary villages, with temporary camps radiating out from the central location. The basic social unit was the patrilocal extended family with marriage being exogamy (marriage outside of group) and virilocal residence (couples living with the male's group).

The Kumeyaay were hunter-gatherers with an emphasis placed on acorn procurement and processing, as well as the capture of rabbits and other small game. Several scholars believe that the Kumeyaay, or at least some bands of the Kumeyaay, were practicing proto-agriculture at the time of Spanish contact. Although there is no definitive evidence of this, the Kumeyaay were adept resource managers with a history of intensive plant management.

Most tools were made from locally available materials, but obsidian was imported from the desert areas. Flaked tools included projectile points, scrapers, and biface knives. The common groundstone tools included metates, manos as well as mortars and pestles. Pottery came to the Kumeyaay quite late and was predominantly a plain brownware. The Kumeyaay were highly skilled in basket weaving, utilizing both coiled and twined construction methods. Some baskets were so tightly woven that they could carry water.

The Kumeyaay practiced many forms of spiritualism with the assistance of shamans. These spiritual leaders neither were elected nor inherited their position. Important ceremonies included male and female puberty rites, the cremation ceremony, as well as the yearly mourning ceremony. The primary ceremonial direction among the Kumeyaay is east, and the Kumeyaay

are the only California tribe known to possess a color-direction system in which white represents the east, green-blue the south, black the west, and red the north.

#### **Cultural Resources in the Proposed Project Area**

#### Record Search Results

The record search results were taken from the cultural technical report (see Appendix 4.5-A, Archaeological Survey Report). Table 4.5-1, Recorded Cultural Resources within a 0.5 mile of the Proposed Project Area includes the 29 cultural resources previously recorded, as well as the two new sites and six new isolates located by PRM.

Table 4.5-1: Recorded Cultural Resources	within a 0.5 mile of the Proposed Project Area
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Site/Isolate Designation	USGS Quad	Description	Evaluation Status	Re-located
CA-SDI-5389	Poway	Prehistoric Bedrock Milling	Not Eligible	Yes in 2012
CA-SDI-5536	Del Mar	Prehistoric Rock Feature/Lithic Scatter, presumed destroyed	Not Eligible	No
CA-SDI-11148	Del Mar	Historic Ranch Remains	Not Evaluated	Yes
CA-SDI-11256	Poway	Historical Homestead Remains	Not Evaluated	Yes
CA-SDI-11910	Del Mar	Prehistoric Artifact Scatter	Evaluated – Status Unknown	Yes
CA-SDI-12254	Poway	Spare Lithic Scatter, presumed destroyed	Not Eligible	No
CA-SDI-12931	Del Mar	Multiple Component	Not Eligible	No
CA-SDI-12932	Del Mar	Multiple Component	Not Evaluated	Yes but outside of the APE
CA-SDI-12933	Del Mar	Multiple Component, presumed destroyed	Not Eligible	No
CA-SDI-13082	Del Mar	Prehistoric Lithic Scatter	Not Eligible	No
CA-SDI-13194	Del Mar	Lithic Scatter, presumed destroyed	Not Eligible	No
CA-SDI-13738	Poway	Prehistoric Quarry	Not Evaluated	Yes
CA-SDI-14120	Del Mar	Prehistoric Lithic Scatter	Not Eligible	No
CA-SDI-14123	Del Mar	Prehistoric Lithic Scatter	Not Evaluated	Yes

Site/Isolate Designation	USGS Quad	Description	Evaluation Status	<b>Re-located</b>
CA-SDI-14124	Del Mar	Prehistoric Lithic Scatter	Not Evaluated	Yes
CA-SDI-14131	Del Mar	Prehistoric Lithic Scatter	Not Evaluated	Yes
CA-SDI-14136	Del Mar	Prehistoric Lithic Scatter	Not Eligible	No
CA-SDI-18276	Poway	Prehistoric Bedrock Milling	Not Evaluated	Yes
CA-SDI-18277	Poway	Prehistoric Shell Scatter	Not Eligible	No
CA-SDI-18278	Poway	Prehistoric Bedrock Milling	Not Evaluated	Yes
CA-SDI-18437	Del Mar	Prehistoric Shell and Lithic Scatter	Not Evaluated	Yes
37-014115	Del Mar	Prehistoric Isolate	Not Eligible	No
37-014513	Del Mar	Prehistoric Isolate	Not Eligible	No
37-014516	Del Mar	Prehistoric Isolate	Not Eligible	No
37-015066	Poway	Prehistoric Isolate, presumed destroyed	Not Eligible	No
37-015217	Del Mar	Prehistoric Isolate	Not Eligible	No
37-015218	Del Mar	Prehistoric Isolate	Not Eligible	No
37-024244	Del Mar	Prehistoric Isolate	Not Eligible	No
37-028352	Del Mar	Prehistoric Isolate	Not Eligible	No
SXPQ-01*	Del Mar	Prehistoric Isolate	Not Eligible	Yes
SXPQ-06*	Del Mar	Prehistoric Isolate	Not Eligible	Yes
SXPQ-07*	Del Mar	Prehistoric Isolate	Not Eligible	Yes
SXPQ-09*	Del Mar	Prehistoric Isolate	Not Eligible	Yes
SXPQ-10*	Poway	Prehistoric Isolate	Not Eligible	Yes
SXPQ-11*	Del Mar	Prehistoric Isolate	Not Eligible	Yes

Table 4.5-1 (cont.): Recorded	Cultural Resources with	in a 0.5 mile of the l	Proposed Project Area

Site/Isolate Designation	USGS Quad	Description	Evaluation Status	Re-located	
37-033556	Del Mar	Historic Dam	Not Evaluated	Yes	
37-033557	Poway	Historic Road	Not Evaluated	Yes	
Source: Appendix 4.5-A Archaeological Survey Report					

#### Archaeological Field Survey Results

During the field surveys, twelve of the previously recorded archaeological resources were relocated, and updated by PRM (CA-SDI-5389, SDI-11148, SDI-11256, SDI-11910, SDI-12932, SDI-13738, SDI-14123, SDI-14124, SDI-14131, SDI-18276, SDI-18278, and SDI-18437). Seventeen of the previously recorded sites were not re-located within the Proposed Project area (SDI-5536, SDI-12254, SDI-12931, SDI-12933, SDI-13082, SDI-13194, SDI-14120, SDI-14136, SDI-18277, 37-014115, 37-014513, 37-014516, 37-015066, 37-015217, 37-015218, 37-024244, and 37-028352). Additionally, PRM identified two new sites (P-37-033556 and P-37-033557) and six new isolates (SXPQ-01, 06, 07, 09, 10, and SXPQ-11) during the 2013 field surveys.

**CA-SDI-5389**: R.H. Norwood originally recorded this prehistoric site in 1977 y. It consisted of one milling slick on an isolated granitic outcrop. The slick measured 30 x 21 x 1 centimeter. Today, the milling feature is on the south side of a slope overlooking a football field. The site was re-located by ASM in 2012 during survey for SDG&E TL-6961, and was noted to be as originally described. The location was recorded with a Trimble GPS unit, and the milling element and feature outcrop were measured and photographed. The slick was noted to be in good condition, and no new site constituents were identified. The site was not revisited during the current survey effort.

**CA-SDI-5536**: Dave Hanna recorded this prehistoric site in 1977 as a light scatter of lithics and seven possible stone features, located on a knoll overlooking a tributary canyon of McGonigle Canyon. Hanna noted that the rock features were difficult to interpret, and consisted of "two conical piles, one rock alignment, and four irregular cobble piles". Lithics included "a few flakes, both percussion and pressure". The site does not appear to have been updated (no update form on file at SCIC). The current survey determined that the site has been destroyed by construction of Collins Ranch Place, the associated, surrounding housing development, and the grading and landscaping of the remaining southern slope above Carmel Valley Road.

**CA-SDI-11148H**: RECON recorded this historic site in 1989, and consisted of two earthen dams, graded terraces, a concrete retaining wall and foundation, a metal lined well, and artifacts including burned lumber, metal pipe, barbed wire and glass. Research conducted at that time indicated that the components date from the 1920's and were part of a ranch owned by John Stelling of Del Mar. During the current survey, the concrete foundation remains, metal-lined well, and a large earthen dam were re-located. The southern part of the site has been impacted by construction of Carmel Valley Road.

**CA-SDI-11256H**: RECON originally recorded this historic site in 1989 and the site consisted of a raised wooden house floor with cobblestone pits, multiple trash scatters, and various cobblestone arrangements, all surrounded by eucalyptus trees. A porch roof was found on the south side of the site. A cobblestone "wall" surrounded the site in all four directions. During the current survey, a small, square concrete structure at approximate ground level, and an unformed concrete and cobble foundation section appear to be all that remain of the raised floor were noted. The site is ringed by 13 large eucalyptus trees, many of which are enclosed in low, loosely assembled cobble walls. Additional cobble walls appear to delineate a section of an entrance road. Small pits and a surface scatter of trash are present on the north margin of the site. The site boundary and several of the remaining elements were recorded with a Trimble GPS unit, as was the trash scatter, which extends, slightly, from the original site area, to the north. The site is close to residential development, and is apparently heavily trafficked, as evidenced by large amounts of modern bottle glass and refuse. Some of the previously described components may have been burned in place.

**CA-SDI-11910**: Brian F. Smith and Associates recorded this prehistoric site in 1990. The site was described as an artifact scatter, with three choppers, two scrapers, one hammerstone, two metate fragments, four cores, four debitage, and four flakes. Smith collected the surface artifacts and subsurface artifacts that were excavated from one test unit, and shovel test pits. The site was revisited by Gallegos & Associates in in 2005, and a single piece of debitage was observed. During the current survey, a single quartzite interior flake with two dorsal scars was identified near the center of the recorded site area, and the location was recorded with a Trimble GPS unit. Visibility was fair to poor over much of the site area. Access roads are located within the mapped site boundary.

**CA-SDI-12254**: Recorded by Affinis in 1991 as a sparse lithic scatter. Revisited in 1995 by Ogden Environmental and described as destroyed by construction of substation. Located within Miramar MCAS.

**CA-SDI-12931**: According to an update performed by Ogden Environmental in 1992, Cardenas originally recorded the site as SDM-W-2790. The site consists of two loci, located on low ridges, south of a tributary of La Zanja Canyon. Locus B, which extends minimally into the current Proposed Project area, is described as a small artifact scatter, containing one hammerstone, one flake, and one basin metate fragment. Locus A is not located within the current survey area. During the current survey, the site was not re-located. Dense, matted grasses and other vegetation created very poor visibility over the site area of both loci. The southern edge of locus B, as mapped, overlaps only very minimally with the current survey area.

**CA-SDI-12932**: Ogden Environmental originally recorded the site in 1992, as a hill-top rock enclosure. A prehistoric mano was identified within the structure. Ogden noted that the site is at the location of a structure shown on the 1903 USGS map. During the current survey, the rock enclosure was re-located. The structure was found to be somewhat indistinct, but clearly manmade. The site may have been altered, or expanded since its initial recording, by continued use, possibly as a recreational "fort". A Trimble GPS unit was employed to obtain accurate dimensions and location for the structure. The structure's location was found to be mismapped, actually lying considerably further north, and outside of the current survey area. The structure contained a small amount of modern trash, including a number of wooden landscaping poles, and pieces of plastic shelving. The mano noted on the original site record was not re-located, due to
poor visibility. The structure is overgrown with native vegetation, and contains a considerable amount of naturally accumulated plant debris.

**CA-SDI-12933**: Ogden Environmental originally recorded this site in 1992, as a small scatter of prehistoric and historic artifacts. The site contained three fragments of purple glass, a metavolcanic flake, and a porphyritic volcanic fire-affected mano fragment. Ogden noted that the site is at the location of a structure shown on the 1903 USGS map. The current survey determined that the site has been destroyed by construction. The southwest end of a large, fourplex baseball filed now lies over the eastern half of the original site area, and a steeply cut and landscaped slope occurs over the western half of the site area.

**CA-SDI-13082**: Gallegos and Associates recorded the site in 1992 as a sparse lithic scatter, containing one quartzite core, one quartzite flake, and one porphyritic volcanic flake. During the current survey, the site was not re-located. Visibility ranged from fair to poor over the site area, and disturbances were evident within the access roads and near existing structures. The site may have been destroyed/displaced by grading activities.

**CA-SDI-13194**: Gallegos & Associates recorded the site in 1993 as a lithic scatter containing one metavolcanic core, one metavolcanic flake, and one quartzite flake. The current survey determined that the site has been destroyed by residential development and adjacent landscaping.

**CA-SDI-13738**: KEA recorded the site in 1994. The site was identified as a prehistoric quarry, consisting of 14 low bedrock outcrops which exhibit varying degrees of quarrying. More than ten+ flakes were identified in association with the quarry, and a single retouched flake was identified in an adjacent graded road. The original recording noted evidence of heavy machinery in the vicinity, and noted that some of the observed rock scars could be attributed to modern damage.

During the current survey, the quarrying activity could not be definitively identified. Dense matted grasses obscure much of the ground surface in the vicinity, and no surface artifacts were observed. The presumed site area appears to be somewhat mismapped, as the original boundary/location contains only a couple of outcrops, none of which appear to exhibit quarrying. A large grouping of slightly more exposed outcrops located further north likely represents the identified quarrying area. A Trimble GPS unit was employed to record the location of this more prominent cluster of outcrops. All of the outcrops observed in the vicinity are of a relatively coarse grade of volcanic material, and none were observed to exhibit obvious quarrying activity, however a specialized study, and improved ground visibility may help identify such activity.

**CA-SDI-14120**: Gallegos & Associates recorded this prehistoric site in 1995 as a sparse lithic scatter with three loci. Locus B, the southernmost of the loci, overlaps minimally with the current survey area. Locus B was identified as containing one core tool and one flake. The current survey determined that the northern loci, A and B, were destroyed by development of residential pads. Locus B lies on the edge of the development, and associated landscaping. Visibility was fair to poor over the locus area, due to dense chaparral, mostly chamise (probably regrowth). Locus B was not re-located, and may have been displaced or destroyed by adjacent development

**CA-SDI-14123**: Gallegos & Associates recorded this prehistoric site in 1995 as a chipping station/raw material prospect, located on the east edge of a northern finger of Del Mar Mesa.

The site consisted of three cores and more than 12 flakes including metasedimentary, metavolcanic, and quartzite material. The materials were noted in an approximate 7 x 5 meter area. During the current survey, one dark gray quartzite core, three interior flakes and one primary flake of the same material, and two light gray quartzite flakes were identified in a location corresponding to the *sketch map* and the description provided with the original site form (and the adjoining, more inclusive sketch map for adjacent site SDI-14124). This location is at variance with the *location map* provided with the original site form, which (after modern GIS overlay) places the site on the steep, eastern slope of the mesa finger. The wooden stake and aluminum tag which originally marked the site were not re-located, however the disturbances were evident in the area as well as recreational traffic associated with proximal, residential development. The site vicinity is covered with dense, native vegetation, and visibility is fair to poor, except in areas void of vegetation within graded roads. The currently identified materials lie within a 5 x 5 meter area, and the location was recorded with a Trimble GPS unit.

**CA-SDI-14124**: Gallegos & Associates recorded this prehistoric site in 1995. The site was described as a sparse lithic scatter with a dense concentration at the north end, located on the west side of a northern finger of Del Mar Mesa. The original description noted "several cores and about two dozen flakes". The current survey noted two porphyritic volcanic interior flakes, one porphyritic volcanic secondary flake, and one quartzite primary flake in a long, narrow clearing along the west edge of the finger. The surrounding area is covered in dense native vegetation, and visibility is generally fair to poor, with occasional cleared areas. The wooden stake and aluminum tag that originally marked the site were not re-located. The currently identified artifacts were recorded with a Trimble GPS unit.

**CA-SDI-14131**: Gallegos & Associates recorded this prehistoric site in 1995 as a flaking station, or lithic raw material prospect. The original recording noted two cores, one Teshoe flake, and three flakes of quartzite and volcanic material, located on the southern edge of a westerly trending finger of northern Del Mar Mesa. The site size was noted as 10 x 10 meters.

During the current survey, the wooden stake and aluminum tag which originally marked the site were re-located. The stake was no longer embedded, however the location corresponds to the original site location, and has apparently not been displaced. Two quartzite tested cobbles/cores were noted within 5 meters of the stake. Dense native vegetation surrounds the relatively clear area of the site, at the edge of the mesa finger. A well utilized recreational trail (pedestrian and bicycle) runs approximately 2 meters south of the wooden stake location.

**CA-SDI-14136**: Gallegos & Associates recorded this prehistoric site in 1995 as a chipping station/raw material prospect, located on the south side of the head of a seasonal drainage which extends northward to Deer Canyon. One core and five flakes of quartzite material were noted within an area measuring  $5 \times 7.5$  meters. The site was not re-located during the current survey. The current survey determined that the mapped location is at some variance with the site description and sketch map, as the location map shows a site size of over  $40 \times 60$  meters. The entire site area and vicinity is covered in dense native vegetation, and visibility is poor throughout. It is important to note that due to the mapping discrepancy; it is unclear whether the site is located within the current survey corridor.

**CA-SDI-18276**: ASM originally recorded this prehistoric site in 2005 as an isolated bedrock milling feature with one slick. The slick measured  $32 \times 23$  centimeter on an irregular granitic outcrop. The slick was less than one centimeter deep. During the current survey, the milling was identified and rerecorded. The slick is in good condition, and exhibits minimal use. The granitic outcrop which contains the slick is in excellent condition. No additional cultural resources were located at the site.

**CA-SDI-18277**: This prehistoric site consists of a sparse marine shell scatter located down slope of a low saddle. ASM recorded five fragments of shell in 2005 over a 17 x 10 meter area; three California oyster and two *Chione* sp. It is noted on the site form that the site was in very poor condition due to a dirt road bulldozed through the area and dense vegetation in some areas. This site was not re-located during the current survey. The previous record of the site cited excellent visibility due to recent burning of ground cover. Current conditions include dense matted grasses over the entire site area, and very poor visibility.

**CA-SDI-18278**: ASM originally recorded this prehistoric site in 2005 as an isolated bedrock feature containing one mortar at the base of Black Mountain. The original recording noted the presence of a small boulder apparently placed on top of the outcrop to hide the mortar. A quartzite cobble, located next to the feature was also recorded as a possible pestle, however no obvious use-wear was noted. The site was re-identified as previously described, during the current survey. The rounded quartzite cobble that was noted in 2007 was not re-identified at this time, however dense ground cover and other, native vegetation covers the site and surrounding area. As noted in the previous site record, a small boulder rests atop the milling feature in an apparent attempt to shield the mortar from view. The mortar was recorded in excellent condition and no new cultural resources were observed. The feature was photographed and the location recorded with a Trimble GPS unit.

**CA-SDI-18437**: Gallegos and Associates recorded this prehistoric site in 2006. The site was described as an artifact scatter consisting of a sparse scatter of marine shell, and a single, quartzite battered implement, located on a mesa top, just east of the SDG&E Peñasquitos Substation. Shell species included primarily *Chione* sp., with one burned *Argopectin* sp. specimen, and two *Ostrea* sp. fragments. The site measured 32 x 80 meters, and was observed within and adjacent to an SDG&E access road. The battered implement was noted on the edge of the graded road, and was reportedly damaged by heavy equipment. HDR Inc. revisited the site in 2010. The study was limited to examination of the access road. A sparse scatter of marine shell was noted approximately 2.5 meters east of the graded road. During the current survey, a sparse scatter of marine shell was noted over the site area as originally described. Shell was not noted within the road, however, probably due to ongoing grading. The battered implement was not re-located, however ongoing grading disturbance has also likely displaced or obscured it.

**37-014115**: Gallegos and Associates recorded this prehistoric isolate in 1995, and the isolate consists of a volcanic core and a metavolcanic flake. The isolate was not re-located during the current study.

**37-014513**: Gallegos and Associates recorded this prehistoric isolate in 1995, and the isolate consists of a quartzite scraper plane and a quartzite bifacial core. The isolate was not re-located during the current study.

**37-014516**: Gallegos and Associates this prehistoric isolate in 1995, and the isolate consists of one quartzite flake, and one metasedimentary flake. The isolate was not re-located during the current study.

**37-015066**: Affinis Corporation recorded this prehistoric isolate in 1991, and the isolate consists of a fine grained metavolcanic core. The isolate was located within Miramar MCAS, and was destroyed by construction of the SDG&E Sycamore Substation.

**37-015217**: Ogden Environmental recorded this prehistoric isolate in 1992 and the isolate consists of a black quartzite secondary flake. The location has been subjected to heavy disturbance from adjacent development. The isolate was not re-located during the current study.

**37-015218**: Ogden Environmental recorded this prehistoric isolate in 1992 and the isolate consists of a black quartzite core. The location is covered in dense native vegetation. The isolate was not re-located during the current study.

**37-024244**: This historical feature is an unknown linear resource (no site form available from SCIC), apparently an historic, graded roadway or truck trail. Within the Proposed Project corridor, the road is deeply cut into a steep slope, otherwise covered in dense native vegetation. The feature was not addressed during the current survey.

**37-028352**: Gallegos and Associates recorded this prehistoric isolate in 2006, and the isolate consists of one, gray-green metavolcanic flake. This location is covered in dense, matted grass and native vegetation. The isolate was not re-located during the current study

**SXPQ-01**: This prehistoric isolate consists of a single, volcanic mano fragment, located on a slope above a north trending, unnamed tributary drainage of La Zanja Canyon. The area has been disturbed by construction of Carmel Valley Road, channelization of the drainage, and by agricultural activity on the mesa top above. The mano fragment is bifacial, and appears to be fire affected.

**SXPQ-06**: This prehistoric isolate consists of one gray-green porphyritic secondary flake, and one dark gray porphyritic interior flake fragment. The isolate is located on a southeast trending mesa finger, south of a graded SDG&E access road. The area appears to have been disturbed by light grading, or a fire break.

**SXPQ-07**: This prehistoric isolate consists of one gray porphyritic interior flake, located on the slightly sloping, southern edge of a mesa finger. The area is covered with dense native vegetation, and does not appear to have been disturbed.

**SXPQ-09**: This prehistoric isolate consists of a porphyritic volcanic scraper. The isolate was located on a moderate to steep, cobble-strewn slope, above an unnamed, south trending tributary drainage of Peñasquitos Canyon. The immediate area of the isolate does not appear to have been disturbed.

**SXPQ-10**: This prehistoric isolate consists of a quartzite primary flake. The isolate is located on a small, relatively flat bench on a ridge finger, which descends from Black Mountain to the east. The location is above, and to the south of a steep drainage, which forms part of the head waters

of McGonigle Canyon. A graded road lies approximately 30 meters south of the isolate, and the area may have been subjected to some disturbance.

**SXPQ-11**: This prehistoric isolate consists of a quartzite, multidirectional core, located at the head of a small, north trending tributary drainage that flows into a fork/tributary of Deer Canyon. The isolate is located in a linear clearing, possibly graded for a fire break. Dense native vegetation covers much of the surrounding area.

**37-033556** (**SXPQ-12**): This historical feature is an earthen dam. The dam is located within a small, northern fork/tributary of McGonigle Canyon. The dam consists of an earthen berm rising roughly 15 feet from the floor of the drainage, and measuring roughly 75 feet thick at its base. The pond area behind it, to the northeast, measures roughly 120 x 120 feet, and is filled with a mixture of native and non-native vegetation. An eroded spillway is located in the approximate center of the dam, and is also filled with vegetation. No structures or associated artifacts were identified in the immediate vicinity of the dam or pond, however, historic site SDI-11148H lies within view, approximately 700 feet to the west, and may be related. Carmel Valley Road is approximately 250 feet away, and a recently constructed housing tract is approximately 400 feet away.

**37-033557** (**SXPQ-13**): This historical feature is an abandoned section of Old Pomerado Road/Highway 395. This slightly curving section of road measures approximately 190 feet long by 20 feet wide, and is located on a steep, east-facing slope, above a north-trending tributary of Beeler Creek.

This section of road was cut into the side of the slope, and is bounded on the west by a steep cobble, cut-bank rising approximately 15 feet to present day Pomerado road, and on the east by a steep drop-off. The north and south end of the road section are covered in eroding cobble-filled soils and no edges or cross-section are visible. The asphalt surface of the road has small remnants of a yellow painted center-line, and a white painted shoulder. Numerous plants have cracked through the surface, attaining heights of up to 8 feet. This section of Old Pomerado Road is shown on a County aerial survey map from 1928. In the 1930's, Hwy 395 was extended south from the Canadian border, and by 1939, incorporated this section of Pomerado road. The feature corresponds to the footprint of Hwy 395 shown on the historic 1942 Poway USGS topographic map. Pending additional research, construction of this abandoned portion of roadway may date to this period.

Nine of the proposed pole/work area locations are in the vicinity of fourteen identified cultural resources. These fourteen sites were identified through record searches and the current field studies and are summarized in Table 4.5.1. Eligibility status is included within the table. Table 4.5.1 describes the previously recorded cultural resources, as well as the new sites and isolates located by PRM. Isolated finds are not eligible for listing by nature. Sites that have been evaluated are listed as either eligible or not eligible, depending upon the determinations made from the evaluation, and sites that have not been evaluated are treated as significant. The Proposed Project has been designed to be far enough from these 14 cultural resource locations that no direct impacts should occur if minimal avoidance measures are implemented. There are an additional 15 poles and six work areas proposed in areas of high sensitivity for buried cultural deposits. It is recommended that a cultural monitor be present during initial grading activities.

#### 4.5.3.3 Paleontological Resources within the Proposed Project Area

The literature and record search conducted by the SDNHM indicates that there are eight known fossil localities within the Proposed Project alignment (refer to Appendix 4.5-B). The eight fossil locations occur in the Scripps Formation (one locality), the Ardath Shale (one locality), the Friars Formation (four localities) and the Mission Valley Formation (two localities), all of which are high sensitivity.

The Proposed Project area has a large occurrence of metavolcanic and metasedimentary rocks. The high temperature and pressure conditions associated with the formation of the plutonic rocks are responsible for the absence of fossils. However, there are portions of the Proposed Project area that are underlain by sedimentary rocks, including the Scripps Formation, the Friars Formation and the Mission Valley Formation as well as the Ardath Shale.

The Scripps Formation is a Middle Eocene age sedimentary formation, which is approximately 47 million years in age. This formation has a high paleontological sensitivity due to its production of both land mammals (i.e., rhinoceros, and artiodactyl) and marine organisms (i.e., sharks and bony fishes).

The Ardath Shale is a Middle Eocene age sedimentary formation, which is approximately 45 to 46 million years in age. This formation has a high paleontological sensitivity due to its production of diverse and well-preserved assemblages of fossils.

The Friars Formation consists predominantly of sandstones, and siltstones, and is a Middle Eocene age sedimentary formation, which is approximately 45 to 46 million years in age. This formation has a high paleontological sensitivity due to its rich vertebrate terrestrial mammal fossil collections such as primates, and artiodactyls. It also can contain well-preserved marine microfossils as well as fossil leaves.

The Mission Valley Formation is a Late Eocene age sedimentary formation, which is approximately 43 million years in age. This formation has a high paleontological sensitivity due to its production of abundant and generally well-preserved marine microfossils as well as large and diverse assemblages of fossil land mammals.

Some pole locations are within sedimentary rock formations that could potentially yield fossils. The type of foundation for the pole replacements would need to be considered. A (micropile) small borehole diameter (<12 inches) for installation of a single utility pole would typically pulverize subsurface deposits including any fossil remains. In contrast, larger pole diameters (concrete pier), or excavations for deep utility trenches could result in the potential for buried fossil remains. Final engineering would determine installation method (micropile versus concrete pier), but at this time we assume that all poles foundations would be constructed using the concrete pier method.

#### 4.5.4 Potential Impacts

#### 4.5.4.1 <u>Significance Criteria</u>

#### Cultural Resources

Under CEQA, the effects of Proposed Project construction, operation, and maintenance on historically significant cultural resources must be considered. A cultural resource is historically significant if it meets any of the following criteria:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important in our past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work on an important creative individual, or possesses high artistic values; or
- Has yielded, or may be likely to yield, information important in prehistory or history.

The Proposed Project could have a potentially significant impact to cultural resources if it would:

- Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.
- Directly or indirectly, destroy a unique paleontological resource or site or unique geologic feature.
- Disturb any human remains, including those interred outside of formal cemeteries.

For purposes of the first two thresholds, a "substantial adverse change" is defined as physical destruction, demolition, relocation, or alteration of an historical resource in Section 15064.5(b)(1) of the *CEQA Guidelines*.

# 4.5.4.2 <u>Question 5a - Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?</u>

#### **Construction – Less than Significant**

There are 37 identified cultural resources located within or adjacent to the Proposed Project area. Twenty-three of the cultural resources have been deemed not eligible for the NRHP/CRHR. The other 14 sites have not been evaluated for historical significance and may qualify as historical resources as identified in *CEQA Guidelines* Section 15064.5(a). For the purpose of this Proposed Project, these 14 sites are being assumed to qualify as "historical resources" as defined by CEQA.

Nine of the proposed pole/work area locations are in the vicinity of these 14 identified cultural resources. There are an additional 15 poles and six work areas proposed in areas of high

sensitivity for buried cultural deposits. The current design is far enough from the cultural resource locations that no direct impacts should occur, with the implementation of APMs CUL-1 through CUL-6. With the implementation of these APMs, any possible potential impacts to such historical resources would remain less than significant.

Construction of the Proposed Project (including excavation of holes and underground trenches for the installation of new structures and duct bank packages) could potentially impact unknown historical resources by disturbing subsurface soils, and potentially disturbing or destroying unknown buried cultural deposits. With the implementation of APMs CUL-1 through CUL-6, any possible potential impacts to such unknown historical resources would remain less than significant.

#### **Operation & Maintenance – No Impact**

SDG&E currently maintains and operates existing electric power, transmission, distribution and substation facilities throughout the Proposed Project site. To the extent operation and maintenance of the Proposed Project would occur in the same location as existing facilities and would have the same or substantially the same impacts, frequency and duration as operation and maintenance activities of the existing facilities, such activities are incorporated into the existing environmental setting and baseline for assessing impacts. Moreover, SDG&E already has standard internal programs and practices that avoid impacts to cultural resources and those programs and practices would not change as a result of the Proposed Project. There would be no regular operational impacts (ground disturbance) on cultural resources along the Proposed Project once the Proposed Project is constructed. The only activities that would occur would be regular inspection, maintenance, and repairs, such as structure and insulator replacements and underground line inspection (performed from the nine underground splice vaults). With the exception of the underground transmission line inspection and maintenance (Segment B) these activities would decrease slightly from existing conditions, and would have no effect on historical resources. Any ground-disturbing activities associated with Proposed Project operation and maintenance would be performed at locations already disturbed for Proposed Project construction. Any future potential maintenance-related construction projects would be evaluated under General Order 131-D and CEQA for purposes of assessing whether further CPUC approval is required. Therefore, no impacts to cultural resources are anticipated during the continuing operation and maintenance following construction of the Proposed Project.

#### 4.5.4.3 <u>Question 5b - Cause a substantial adverse change in the significance of an</u> <u>archaeological resource pursuant to §15064.5?</u>

#### **Construction – Less than Significant**

Potential impacts to the 37 archaeological sites would remain less-than-significant with the implementation of APMs. Twenty-three of the cultural resources have been deemed not eligible for the NRHP/CRHR. The other 14 sites have not been evaluated for significance and may qualify as archaeological resources as identified in *CEQA Guidelines* Section 15064.5(a). For the purpose of this Proposed Project, these 14 sites are being assumed to qualify as "archaeological resources" as defined by CEQA.

Nine of the proposed pole/work area locations are near these 14 identified archaeological resources. There are an additional 15 poles and six work areas proposed in areas of high sensitivity for buried cultural deposits. Evidence for buried cultural deposits was opportunistically sought through the inspection of natural or artificial erosional exposures and the spoils from rodent burrows. In the daily survey notes, the field director assessed the potential for buried sites on the basis of subregional geomorphology. For instance, the potential would be rated as high in large alluvial valleys and as low in areas with shallow bedrock. Construction of the Proposed Project (including excavation of holes and underground trenches for the installation of new structures and duct bank packages) could potentially impact identified archaeological resources by disturbing subsurface soils, and potentially disturbing or destroying unknown buried cultural deposits. By implementing APMs CUL-1 through CUL-6, any possible potential impacts to archaeological resources would remain less than significant.

#### **Operation & Maintenance – No Impact**

SDG&E currently maintains and operates existing electric power, transmission, distribution and substation facilities throughout the Proposed Project site. To the extent operation and maintenance of the Proposed Project would occur in the same location as existing facilities and would have the same or substantially the same impacts, frequency and duration as operation and maintenance activities of the existing facilities, such activities are incorporated into the existing environmental setting and baseline for assessing impacts. Moreover, SDG&E already has standard internal programs and practices that avoid impacts to cultural resources and those programs and practices would not change as a result of the Proposed Project. There would be no operational impacts (ground disturbance) on cultural resources along the Proposed Project once the Proposed Project is constructed. The only activities that would occur would be regular inspection, maintenance, and repairs, such as structure and insulator replacements and underground line inspection (performed from the nine underground splice vaults). With the exception of the underground transmission line inspection and maintenance (Segment B) these activities would decrease slightly from existing conditions, and would have no effect on Any ground-disturbing activities associated with Proposed Project historical resources. operation and maintenance would be performed at locations already disturbed for Proposed Project construction and thus would have no effect on archaeological resources. Therefore, no impacts to cultural resources are anticipated during the continuing operation and maintenance following construction of the Proposed Project.

# 4.5.4.4 <u>Question 5c - Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?</u>

If the Proposed Project directly or indirectly destroys a unique paleontological resource or geologic feature, the impacts to paleontological resources would be considered significant. CEQA does not define "a unique paleontological resource or site". Paleontologists generally use existing fossil and geological data to determine areas of potential significance, and a resource is deemed unique or important if:

- The particular geologic unit has previously recovered fossils.
- The geologic units that occur within the project area have recorded fossil localities.
- The fossil material recovered from the geologic unit are considered unique or important.

A fossil is defined as the remains of a prehistoric plant or animal. Fossils are considered to be non-renewable. Paleontological sensitivity is defined as the potential for a geologic unit to produce scientifically significant fossils. The sensitivity is based upon fossil data collected from the entire geologic unit, not just from a specific location or survey. Impacts to paleontological resources are identified from high to zero. The specific criteria are defined as follows:

- High Potential Rating: Rock units with a high potential for significant paleontological resources are those known to have yielded vertebrate fossils within the Proposed Project area or region. This does not necessarily imply that vertebrate fossils would always be recovered from high potential rated rock units, but only that there are recorded occurrences within the unit.
- Moderate Potential Rating: Rock units possessing some degree of potential, such as favorable depositional environment for resource preservation or lithologically similar rock units in the region that have yielded vertebrate fossils.
- Low Potential Rating: Rock units containing lithologies that do not commonly preserve significant fossil resources such as sediments of Holocene, sub-Holocene or Recent age are usually considered too young (less than 10,000 years old) in geologic time to preserve fossils.
- Zero Potential Rating: This rating is assigned to geologic formations that are igneous in origin, and therefore have no potential for producing fossil remains. This would also include artificial fill, as well as any non-fossilferous metamorphic rock units.

#### **Construction – Less than Significant**

Much of the Proposed Project area contains non-fossilferous metamorphic rocks making impacts to significant paleontological resources unlikely in these areas. However, there are areas that contain rock unit types that have a high potential for paleontological resources throughout the region (the Friars, Mission Valley, Scripps and the Ardath Shale Formations). The records search indicated that eight previously recorded paleontological sites are known to exist within the Proposed Project area (refer to Appendix 4.5-B). The eight fossil locations occur in the Scripps Formation (one locality), the Ardath Shale (one locality), the Friars Formation (four localities) and the Mission Valley Formation (two localities), these rock units have high sensitivity.

Some pole locations are within sedimentary rock formations that could potentially yield fossils. The type of pole replacements would need to be considered for impacts. A (micropile) small borehole diameter (<12 inches) for installation of a single utility pole would typically pulverize subsurface deposits including any fossil remains. In contrast, larger pole diameters (concrete pier), or excavations for deep utility trenches could result in the potential for buried fossil remains. Final engineering would determine installation method (micropile versus concrete pier), but at this time we assume that all poles foundations will be constructed using the concrete pier method.

There is the potential for impacts to these paleontological resources to occur when earthwork activities are performed, such as grading operations and excavation that cuts into the geological deposits (formations) within which fossils may be buried, especially when the excavations go below three feet in depth. Any possible potential impacts would remain less than significant

with the implementation of ordinary construction and operating restrictions (refer to Section 3.8) and APMs CUL-7, and CUL-8.

#### **Operation & Maintenance – No Impact**

SDG&E currently maintains and operates existing electric power, transmission, distribution and substation facilities throughout the Proposed Project site. As previously discussed above, to the extent operation and maintenance of the Proposed Project would occur in the same location as existing facilities and would have the same or substantially the same impacts, frequency and duration as operation and maintenance activities of the existing facilities, such activities are incorporated into the existing environmental setting and baseline for assessing impacts. Moreover, SDG&E already has standard internal programs and practices that avoid impacts to cultural resources and those programs and practices would not change as a result of the Proposed Project. The only activities that would occur would be regular inspection, maintenance, and repairs, such as structure and insulator replacements and underground line inspection (performed from the nine underground splice vaults). With the exception of the underground transmission line inspection and maintenance (Segment B) these activities would decrease slightly from existing conditions, and would have no effect on paleontological resources. Any grounddisturbing activities associated with Proposed Project operation and maintenance would be performed at locations already disturbed for Proposed Project construction. Therefore, no impacts to paleontological resources are anticipated during the continuing operation and maintenance following construction of the Proposed Project.

# 4.5.4.5 <u>Question 5d - Disturb any human remains, including those interred outside of formal cemeteries?</u>

#### **Construction – Less Than Significant**

There are no known existing cemeteries, previously recorded Native American or other human remains within or directly adjacent to the Proposed Project area. Therefore, the potential for the inadvertent discovery of Native American or other human remains during subsurface construction associated with the Proposed Project is considered low. If human remains are encountered during the course of construction, SDG&E would halt work in the vicinity of the find and would implement the appropriate notification processes as required by law (California Health and Safety Code 7050.5, Public Resources Code 5097.98-99, and NAGPRA). As a result, potential impacts would be less than significant.

#### **Operation & Maintenance – No Impact**

SDG&E currently maintains and operates existing electric power, transmission, distribution and substation facilities throughout the Proposed Project site. As previously discussed, to the extent operation and maintenance of the Proposed Project would occur in the same location as existing facilities and would have the same or substantially the same impacts, frequency and duration as operation and maintenance activities of the existing facilities, such activities are incorporated into the existing environmental setting and baseline for assessing impacts. Moreover, SDG&E already has standard internal programs and practices that avoid impacts to cultural resources and those programs and practices would not change as a result of the Proposed Project. Ground-disturbing activities associated with Proposed Project operation and maintenance would be performed at locations that have been previously disturbed for Proposed Project construction.

Therefore, no impacts to human remains are anticipated during the continuing operation and maintenance of the Proposed Project.

#### 4.5.5 **Project Design Features and Ordinary Construction/Operating Restrictions**

With the implementation of the project design features and ordinary construction restrictions (as outlined within Section 3.8) and APMs outlined below, potential impacts relating cultural resources will remain less than significant.

#### 4.5.6 Applicant Proposed Measures

When implemented, the following APMs would reduce the potential adverse impacts to cultural resources to a less than significant level:

**CUL-1:** A qualified archaeologist would attend preconstruction meetings, as needed, and a qualified archaeological monitor would monitor activities in the vicinity of all known cultural resources within the Proposed Project area. The requirements for archaeological monitoring would be noted on the construction plans. The archaeologist's duties would include monitoring, evaluation of any finds, analysis of collected materials, and preparation of a monitoring results report conforming to Archaeological Resource Management Reports guidelines.

**CUL-2:** Known cultural resources that will be avoided would be demarcated as Environmentally Sensitive Areas. Construction crews would be instructed to avoid disturbance of these areas.

**CUL-3:** In the event that cultural resources are discovered, the archaeologist would have the authority to divert or temporarily halt ground disturbance to allow evaluation of potentially significant cultural resources. The archaeologist would contact SDG&E's Cultural Resource Specialist and Environmental Project Manager at the time of discovery. If the resource was discovered on MCAS Miramar, the base archaeologist would also be contacted by SDG&E. The archaeologist, in consultation with SDG&E's Cultural Resource Specialist, would determine the significance of the discovered resources. SDG&E's Cultural Resource Specialist and Environmental Project Manager must concur with the evaluation procedures to be performed before construction activities are allowed to resume. For significant cultural resources, a Research Design and Data Recovery Program would be prepared and carried out to mitigate impacts.

**CUL-4:** All collected cultural remains would be cataloged, and permanently curated with an appropriate institution. All artifacts would be analyzed to identify function and chronology as they relate to the history of the area. Faunal material would be identified as to species.

**CUL-5:** An archaeological monitoring results report (with appropriate graphics), which describes the results, analyses, and conclusions of the monitoring program, would be prepared and submitted to SDG&E's Cultural Resource Specialist and Environmental Project Manager following termination of the program. Any new cultural sites or features encountered would be recorded with the SCIC.

**CUL-6:** Native American monitoring may be implemented if transmission line construction has the potential to impact identified and mapped traditional locations or places. The role of the Native American monitor shall be to represent tribal concerns and communicate with the tribal

council. Appropriate representatives will be identified based on the location of the identified traditional location or place.

**CUL-7:** A paleontological monitor would work under the direction of a qualified Project paleontologist and would be on site to observe excavation operations that involve the original cutting of previously undisturbed deposits for the eight poles located within paleontologically sensitive formations (i.e., Friars, Mission Valley, Scripps and the Ardath Shale Formations). A paleontological monitor is defined as an individual who has experience in the collection and salvage of fossil materials.

CUL-8: In the event that fossils are encountered, the paleontological monitor would 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 paleontologist would contact SDG&E's Cultural Resource Specialist and Environmental Project Manager at the time of discovery. The paleontologist, in consultation with SDG&E's Cultural Resource Specialist would determine the significance of the discovered resources. SDG&E's Cultural Resource Specialist and Environmental Project Manager must concur with the evaluation procedures to be performed before construction activities are allowed to resume. Because of the potential for recovery of small fossil remains, it may be necessary to set up a screen-washing operation on site. If fossils are discovered, the paleontologist (or paleontological monitor) would recover them along with pertinent stratigraphic data. In most cases, this fossil salvage can be completed in a short period of time. Because of the potential for recovery of small fossil remains, such as isolated mammal teeth, recovery of bulk-sedimentary-matrix samples for off-site wet screening from specific strata may be necessary, as determined in the field. Fossil remains collected during monitoring and salvage would be cleaned, repaired, sorted, cataloged, and deposited in a scientific institution with permanent paleontological collections, and a paleontological monitoring report would be written.

#### 4.5.7 Detailed Discussion of Significant Impacts

Based upon the preceding analysis, no significant impacts relating to cultural resources are anticipated from the Proposed Project.

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Would	the project:	Potentially Significant Impact	Potentially Significant Unless APMs Incorporated	Less than Significant Impact	No Impact
a.	Expose people or structures to 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? Refer to Division of Mines and Geology Special Publication 42.				Ŋ
ii.	Strong seismic ground shaking?			Ŋ	
iii.	Seismic-related ground failure, including liquefaction?			$\square$	
iv.	Landslides?			V	
b.	Result in substantial soil erosion or the loss of topsoil?			V	
с.	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?			V	
d.	Be located on expansive soil, as defined by article 1803.5 of the California Building Code, creating substantial risks to life or property?			Ŋ	
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?				V
f.	Result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state?				V
g.	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?				V

#### 4.6 GEOLOGY, SOILS AND MINERAL RESOURCES

#### 4.6.1 Introduction

This section of the PEA describes existing geologic, soil, and mineral resources within the Proposed Project area and potential impacts related to these resources that could result from construction, operation, and maintenance of the Proposed Project.

Proposed Project construction activities would comply with all relevant federal, state, and local regulatory requirements. With implementation of project design features, construction, operation, and maintenance of the Proposed Project facilities are expected to have less than significant impacts related to geologic, soil, and mineral resources.

#### 4.6.2 Methodology

Preparation of this section was primarily based on review of published and unpublished geologic maps and reports, evaluation of the Proposed Project route on USGS topographic maps, and analysis of 1:2,400 scale aerial photographs covering the Proposed Project area. Much of the Proposed Project alignment has been investigated by previous geotechnical studies, and reports of those studies were reviewed (Benton Engineering, Inc., 1972a and b; Geocon, Inc., 2012a and b). The Proposed Project description was reviewed and potential for impacts related to geologic resources and hazards was evaluated based on the existing geologic and soil conditions as determined by the data review.

#### 4.6.3 Existing Conditions

#### 4.6.3.1 <u>Regulatory Setting</u>

The key regulatory requirements relevant to the assessment of Proposed Project impacts related to geologic, soil, and mineral resources include the following:

- a) The Alquist-Priolo Special Studies Act of 1972 (Alquist-Priolo Act) which, in part, required the California Division of Mines and Geology (now the California Geological Survey) to compile maps of the surface traces of all known active faults in the State of California (State); and
- b) CPUC General Order 95, which designates rules and regulations for overhead electric line construction.

The Surface Mining and Reclamation Act of 1975 (SMARA), in part, encourages the production, conservation, and protection of the State's mineral resources.

While the Alquist-Priolo Act and SMARA do not impose any requirement on the Proposed Project, the active faults and mineral resources mapped by the State provide information for evaluating potential impacts on a project from surface fault displacement and loss of mineral resources in accordance with the CEQA Initial Study Checklist items 6(a)(i) and 6(f).

An additional relevant regulatory requirement is the RWQCB's General Construction Permit. The General Construction Permit requires that a SWPPP be prepared and implemented for projects disturbing over 1 acre of land. While the General Permit is a regulatory requirement for water quality protection (see further discussion in Section 4.8, Hydrology and Water Quality), its requirements for stormwater management BMPs include measures that limit impacts to soils.

The *City of San Diego General Plan* does not include goals or policies directly relevant to the Proposed Project related to geology, soils and mineral resources, but Goal VIII in the Poway Comprehensive Plan: General Plan, Public Safety Element is relevant to the portion of the Proposed Project located in the Poway City boundaries. Goal VIII states that it is the goal of the City of Poway to minimize injuries, loss of life, and property damage resulting from natural and

man-made hazards. Policy B and Policy C for achieving Goal VIII are relevant to the Proposed Project:

- Policy B Geologic Hazards:
  - Compare all development applications with the Geographic Information Management Systems (GIMS) mapping system to determine if significant geologic hazards exist.
  - Investigations performed by a qualified engineering geologist or soil engineer shall be required for all new development review applications.
  - Include, as a condition of approval, the recommendations of the engineering geologist for geologic hazard mitigation and the soils engineer for soils related issues.
- Policy C Seismic Safety:
  - Take all appropriate actions to identify and mitigate seismic hazards such as groundshaking, ground rupture, landslides, liquefaction and structural hazards.
  - The GIMS Mapping System and the Seismic Matrix shall be used to determine if the probability of a seismic hazard exists.
  - Where it has been determined that there is the probability of a seismic hazard, an investigation by a qualified engineering geologist shall be required.

The Proposed Project traverses the south-westernmost corner of the City of Poway. The City's GIMS map does not indicate any surface fault traces, landslides, liquefaction potential, or other geologic hazard conditions at the Proposed Project location that would be a hazard to the Proposed Project or could be exacerbated by the Proposed Project.

#### 4.6.3.2 <u>Topographic Setting</u>

The Proposed Project traverses variable terrain. The western portion of the Proposed Project is dominated by gently sloped marine terraces incised by canyons and valleys. These terraces transition to irregular foothills and valleys in the eastern portion of the Proposed Project area. In the western portion of the Proposed Project, elevations generally range from approximately 250 to 450 feet above mean sea level at structure locations to approximately 100 feet above mean sea level in the bottoms of the lowest canyons that would be spanned. In the eastern portion of the Proposed Project area, elevations generally range from 400 to 900 feet amsl.

#### 4.6.3.3 <u>Geologic Setting</u>

#### **Regional Setting**

The Proposed Project area is located within the southern Peninsular Ranges Physiographic Province, which is characterized by northwest-trending fault-bounded mountain ranges, broad intervening valleys, and low-lying coastal plains. The western portion of the Proposed Project area occurs in the coastal plain where near surface geologic materials are comprised of Tertiary Period and younger marine and non-marine sediments. The coastal plains begin to transition into more irregular foothills topography in the eastern portion of the Proposed Project area where much older Jurassic Period and Cretaceous Period crystalline and metamorphic bedrock are exposed in places, as well as overlying Tertiary Period and younger marine and non-marine sediments.

The Proposed Project occurs on a block of basement rock bounded by the Elsinore Fault Zone to the northeast and by the Newport-Inglewood-Rose Canyon fault zone to the west. Neither of these fault zones crosses the Proposed Project alignment.

#### **Proposed Project Geologic Setting**

Geologic units that occur along the Proposed Project alignment are summarized in Table 4.6-1, Geologic Units Along the Proposed Project Alignment. A geologic map is provided in Figure 4.6-1, Proposed Route Geologic Map.

The majority of the Proposed Project alignment occurs in the Quaternary Very Old Paralic Deposits (Qvop) and Eocene Epoch sedimentary units (i.e., Tmv, Tst, Tf and Tsc) listed in Table 4.6-1. The Young Alluvial Deposits (Qya) and the Ardath Shale (Ta) occur along the Proposed Project alignment and would be spanned by Proposed Project facilities but would not be impacted by Proposed Project construction since none of the Proposed Project ground features occur in these units.

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SDG&E is providing this map with the understanding that the map is not survey grade. Certain technology used under license from AT&T Intellectual Property I, L.P. Copyright ©1998 – 2007 AT&T Intellectual Property 1, L.P. All Rights Reserved.

Proposed Route

Sources: Kennedy, Michael P. and Siang, S. Tan. 2005. Geologic Map of the San Diego 30' X 60" Quadrangle, California. Californ

Sycamore to Peñasquitos 230 kV Transmission Line Project Proposed Route Geologic Map Figure 4.6-1a



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## **Geologic Units**





Sycamore to Peñasquitos 230 kV Transmission Line Project Proposed Route Geologic Map Figure 4.6-1b SDGF

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Section 4.6 – Geology, Soils, and Mineral Resources

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Symbol	Unit Name	Period	Description		
Sedimentary Units					
Af	Artificial Fill	Historic	Varies.		
Qya	Young Alluvial Deposits	Quaternary (Holocene Epoch)	Unconsolidated to slightly consolidated sand and gravel deposited in active washes and flood plains.		
Qvop	Very Old Paralic Deposits	Quaternary	Mostly poorly sorted reddish-brown interfingered strandline, beach, estuarine and colluvial deposits composed of siltstone, sandstone and conglomerate.		
Tmv	Mission Valley Formation	Tertiary (Middle Eocene Epoch)	Predominantly light olive-grey soft and friable fine- to medium-grained marine and nonmarine sandstone with cobble conglomerate tongues.		
Tst	Stadium Conglomerate	Tertiary (Middle Eocene Epoch)	Massive cobble conglomerate with a dark yellowish-brown course-grained sandstone matrix.		
Tf	Friars Formation	Tertiary (Middle Eocene Epoch)	Mostly yellowish-grey medium- grained, massive, poorly indurated nonmarine and lagoonal sandstone and claystone with tongues of cobble conglomerate.		
Tsc	Scripps Formation	Tertiary (Middle Eocene Epoch)	Mostly pale yellowish-brown, medium- grained sandstone containing occasional cobble-conglomerate interbeds.		
Та	Ardath Shale	Tertiary (Middle Eocene Epoch)	Mostly uniform olive-grey sandstone and concretionary beds.		
Igneous a	Igneous and Metamorphic Units				
Kd	Diorite (undivided)	Mid-Cretaceous	Mostly massive, medium- to course- grained, dark gray hornblend diorite and quartz-bearing diorite.		
Mzu	Metasementary and Metavolcanic Rocks (Undivided)	Jurassic and Cretaceous	Low grade (greenschist facies) metasedimentry rocks (conglomerate, sandstone and siltstone) interlayered and mixed with metavolcanic rocks.		
Source: Kennedy and Siang, 2005; Kennedy, 1975.					

 Table 4.6-1: Geologic Units Along the Proposed Project Alignment

#### Faulting and Seismicity

The Alquist-Priolo Act required the California Division of Mines and Geology (now the California Geological Survey) to compile maps of the surface traces of all known active faults in the State. By definition, an active fault is one that is "sufficiently active and well-defined," with evidence of surface displacement within the Holocene epoch time (within approximately about the last 11,000 years). Active fault zones are the locations in the State with the most potential for surface fault rupture. A potentially active fault is one that has evidence of displacement within the Quaternary Period (last 1.6 million years). Potentially active faults are considered to also represent possible surface rupture hazards, although to a lesser degree than active faults. In contrast to active or potentially active faults, faults considered inactive have not moved in the last 1.6 million years.

The Proposed Project occurs within the area of two USGS 7.5 minute quadrangle maps: (1) Del Mar Quadrangle; and (2) Poway Quadrangle. There are no known active or potentially active faults or Alquist-Priolo Act earthquake fault zones in these quadrangles. The closest known active and potentially active faults are those associated with the Rose Canyon Fault Zone. Both active and potentially active surface traces of the Rose Canyon Fault Zone are mapped to occur approximately four miles west of the Proposed Project. The Rose Canyon Fault is a southward extension of the Newport Inglewood Fault Zone and with an estimated slip rate of 1.5 to 2 millimeters per year (Southern California Edison, 2012). The closest active or potentially active faults to the north and east of the Proposed Project are those associated with the Elsinore Fault Zone. Active and potentially active surface traces of the Elsinore Fault Zone occur more than 25 miles to the northeast of the Proposed Project. The Elsinore Fault Zone is a major dextral strike-slip fault zone that is part of the overall San Andreas Fault System that accommodates up to 5 millimeters per year of Pacific-North American plate boundary slip. Other regional faults with the potential to cause strong ground shaking in the Proposed Project area include the offshore Coronado Bank Fault Zone and the Earthquake Valley Fault and the San Jacinto Fault Zone. Distance from the Proposed Project area and maximum earthquake magnitude (Mw) for each of these faults are provided in Table 4.6-2, Major Faults in the Region.

Fault Name	Distance and Direction	Maximum Earthquake Magnitude (Mw)	
Rose Canyon Fault Zone	4 miles W	7.2	
Coronado Bank Fault Zone	16 Miles W	7.6	
Elsinore (Julian Section)	>25 Miles NW	7.1	
Earthquake Valley	>30 Miles E	6.5	
San Jacinto (Coyote Creek Section)	>46 Miles E	6.8	
San Jacinto (Anza Section)	>48 Miles NE	7.2	
Sources: Distance and direction approximated from Jennings and Bryant, 2010; Maximum Earthquake magnitudes from Geocon, Inc., 2012.			

 Table 4.6-2: Major Faults in the Region

#### Fault Rupture

There are no known active or potentially active faults or Alquist-Priolo Act earthquake fault zones within the Proposed Project footprint. Therefore, there are no locations within the Proposed Project footprint area that are prone to surface fault rupture.

#### Strong Seismic Shaking

Intensity of seismic shaking during an earthquake is dependent on the distance from the epicenter of the earthquake, the magnitude of the earthquake, and the geologic conditions underlying and surrounding the area. All of southern California is considered to be a seismically active region. The San Diego County area is subject to strong seismic shaking from regional earthquakes that may occur on active faults that occur in the region including, but not limited to, those listed in Table 4.6-2.

#### 4.6.3.4 <u>Geologic Hazards</u>

#### Subsidence

The primary causes of most subsidence involve human activities, including groundwater or petroleum withdrawal from large alluvial basins with thick accumulations of unconsolidated sediments or drainage of organic soils. Regional lowering of land elevation occurs gradually over time. Subsidence is not a significant risk for the Proposed Project because the Proposed Project does not involve the withdrawal of fluid from geologic materials that could cause subsidence, and because Proposed Project facilities are not generally vulnerable to adverse effects from subsidence.

#### Landslides

Landslide potential can be high in steeply sloped areas. Human factors such as oversteepening/overloading of slopes or introduction of excessive water in soil pores or joints and fractures in rock can also lead to landslides. The principal natural factors contributing to landslides are topography, geology and precipitation. The Proposed Project alignment does not cross any landslide areas identified on published geologic maps reviewed (Kennedy and Siang, 2005; Kennedy, 1975). Additionally, much of the Proposed Project alignment has been investigated by three geotechnical reports prepared for previous SDG&E projects (Benton Engineering, Inc., 1972a and 1972b; Geocon, Inc., 2012). No landslides have been identified within the project area. Review of the terrain via aerial photographs in conjunction with this PEA evaluation also did not identify any landslides in proximity to Proposed Project structures. Nevertheless, in areas of locally steep terrain, there is potential for landslides and other mass wasting to occur. The Ardath Shale geologic unit and the Friars Formation geologic unit that occur in the project region, are identified in the San Diego County GIS geologic hazards database as being prone to landslides. As described in Section 4.6.3.3, the Ardath Shale would not be disturbed by the Proposed Project; it occurs in a few canyon bottoms near the west end of the Proposed Project and would only be spanned by conductors. Only one Proposed Project structure is expected to be located on Friars Formation (E5), in an area of gently sloping terrain with limited landslide potential. A geotechnical investigation would be completed for the Proposed Project that would consider geotechnical conditions at each proposed structure location. The Proposed Project facilities final designs will account for any substantive risks identified by the geotechnical study.

#### Liquefaction and Lateral Spreading

Liquefaction is a seismic phenomenon in which loose, saturated, cohesionless soils behave similar to a fluid when subjected to high-intensity ground shaking. An increase in pore pressure occurs as the soil attempts to compact in response to the shaking, resulting in less grain-to-grain soil contact and, therefore, loss of strength. Liquefaction occurs when three general conditions exist: shallow groundwater (40 feet below ground surface or less); low-density, fine-grained sandy soils; and high-intensity ground motion. Effects of liquefaction on level ground can include sand boils, settlement, and bearing capacity failures below structural foundations.

Lateral spreads involve lateral displacement of large, intact soil blocks down gentle slopes or in the direction of a steep free face such as a stream bank. Lateral spreading can occur in finegrained, sensitive soils such as quick clays, particularly if remolded or disturbed by construction and grading. Loose, granular soils present on gentle slopes and underlain by a shallow water table commonly produce lateral spreads through liquefaction. Conditions susceptible to lateral spreading can be found along stream banks, canals, or cut slopes in recent alluvial or deltaic deposits.

Much of the Proposed Project alignment has been investigated by geotechnical reports prepared for previous SDG&E projects (Benton Engineering, Inc., 1972a and b; Geocon, Inc., 2012a and b) and no locations susceptible to liquefaction or lateral spreading were identified. Review of the Proposed Project area terrain via aerial photographs in conjunction with this PEA evaluation also did not identify any structure locations in low-lying alluvial areas or other settings commonly susceptible to liquefaction. Some Proposed Project structures are in the vicinity of free-face terrain that might have a potential for lateral spreading; for example, where structure locations occur near the edge of a marine terrace. A geotechnical investigation would be completed for the Proposed Project that would consider geotechnical conditions at each proposed structure location. The Proposed Project facilities' final designs would account for any substantive risks identified by the geotechnical study.

#### Soil Collapse

Soil collapse occurs when added moisture causes bonds between soil particles to weaken, which allows the soil structure to collapse and the ground surface to subside. Collapsible soils are generally low-density, fine-grained combinations of clay and sand left by mudflows that have dried, resulting in the formation of small air pockets in the subsurface. The addition of moisture reduces the strength of the soil, resulting in collapse or subsidence. Geotechnical studies to be completed for the Proposed Project would evaluate Proposed Project facility locations for conditions susceptible to soil collapse. The Proposed Project facilities' final designs would account for any substantive risks identified by the geotechnical study.

#### 4.6.3.5 <u>Soils</u>

Table 4.6-3, Soils in the Proposed Project Footprint, identifies soils that could potentially be affected by the Proposed Project. Soils range from rocky sandy loam to clay. Soil symbols and names in Table 4.6-3 correspond to the USDA Soil Conservation Service mapping program.

Symbol	Name	Drainage Class	Typical Slope (%)	
AtF	Altamont Clay	Well Drained	30-50	
AtC	Altamont Clay	Well Drained	5-9	
AwD	Auld Clay	Well Drained	9-15	
DaC	Diablo Clay	Well Drained	2-9	
DaE	Diablo Clay	Well Drained	15-30	
DaD	Diablo Clay	Well Drained	9-15	
DoE	Diablo- Olivenhain Complex	Well Drained	9-30	
FxG	Friant Rocky Fine Sandy Loam	Well Drained	30-70	
GaF	Gaviota Fine Sandy Loam	Well Drained	30 - 50	
LEC2	Las Flores Loamy Fine Sand	Moderately Well Drained	5-9	
LeD2	Las Flores Loamy Fine Sand	Moderately Well Drained	9-15	
LeE	Las Flores Loamy Fine Sand	Moderately Well Drained	15-30	
LsE	Linne Clay Loam	Well Drained	9-30	
OhE	Olivenhain Cobbly Loam	Well Drained	9-30	
OhF	Olivenhain Cobbly Loam	Well Drained	30-50	
RdC	Redding Gravelly Loam	Well Drained	2-9	
ReE	Redding Cobbly Loam	Well Drained	9-30	
RfF	Redding Cobbly Loam	Well Drained	15-50	
SbC	Salinas Clay Loam	Well Drained	2-9	
SmE	San Miguel Rocky Silt	Well Drained	9-30	
SnG	San Miguel- Exchequer Rocky Silty Loams	Well Drained	9-70	
TeF	Terrace Escarpment	Not Specified	Not Specified	
Source: UC D	Source: UC Davis, 2013.			

Table 4 6-3.	Soils in	the Proposed	<b>Project Footprint</b>
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#### 4.6.3.6 <u>Mineral Resources</u>

Portions of the Proposed Project, including much of the route from near I-15 eastward, is classified by the State as Mineral Resource Zone 2 (MRZ-2) (Department of Conservation, 1982; City of San Diego, 2008). The MRZ-2 designation encompasses areas where the State has determined adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence. All new transmission and power line facilities would be located within existing SDG&E ROWs or within public roadways. No mineral rights would be affected.

#### 4.6.4 Potential Impacts

#### 4.6.4.1 <u>Significance Criteria</u>

Thresholds of impact significance were derived from Appendix G of the *CEQA Guidelines*. Under these guidelines, the Proposed Project could have a potentially significant impact to geology and soils if it would:

- a) Expose people or structures to 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 (refer to Division of Mines and Geology Special Publication 42);
  - ii. Strong seismic ground shaking;
  - iii. Seismic-related ground failure, including liquefaction; or
  - iv. Landslides;
- b) Result in substantial soil erosion or the loss of topsoil;
- c) Be located on a geologic unit that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landsliding, lateral spreading, subsidence, liquefaction, or collapse;
- d) Be located on expansive soil, as defined by article 1803.5 of the California Building Code (CBC), creating substantial risk to life or property; or
- 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.

Impacts to mineral resources may be considered significant if they:

- a) Result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state; or
- 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.

#### 4.6.4.2 Question 6a(i) – Expose people or structures to 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?

#### **Construction– No Impact**

No portion of the Proposed Project is located in an Alquist-Priolo Act earthquake fault zone. There are no active or potentially active faults crossing the Proposed Project route. The closest known active fault is the Rose Canyon Fault Zone located approximately 4 miles to the west of the Proposed Project. No recognized active faults underlie the Proposed Project area; therefore, no impacts from fault rupture are expected.

#### **Operation & Maintenance – No Impact**

As noted above, no portion of the Proposed Project is located in an Alquist-Priolo Act earthquake fault zone, there are no active or potentially active faults crossing the Proposed Project route, and the closest known active fault is the Rose Canyon Fault Zone located approximately 4 miles to the west of the Proposed Project. No recognized active faults underlie the Proposed Project area; therefore, no impacts from fault rupture are expected.

In addition, SDG&E currently maintains and operates electric transmission, power, distribution and substation facilities throughout the Proposed Project area. SDG&E's existing facilities and operations and maintenance activities constitute the baseline against which the impacts of the Proposed Project are evaluated. Operations and maintenance activities for the Proposed Project would be similar to baseline conditions. Therefore, the operations and maintenance of the Proposed Project would not result in any potential impacts relating to fault rupture.

#### 4.6.4.3 <u>Question 6a(ii) – Expose people or structures to potential substantial adverse</u> <u>effects, including the risk of loss, injury, or death involving strong seismic</u> <u>ground shaking?</u>

#### **Construction – Less than Significant Impact**

As noted above, no portion of the Proposed Project is located in an Alquist-Priolo Act earthquake fault zone, there are no active or potentially active faults crossing the Proposed Project route, the closest known active fault is the Rose Canyon Fault Zone located approximately 4 miles to the west of the Proposed Project. Nonetheless, all of southern California is considered to be a seismically active region, and the San Diego County area is subject to strong seismic shaking from regional earthquakes that may occur on active faults that occur outside of the Proposed Project area. However, because of the short (approximately one year construction period) and the low likelihood of a moderate to large earthquake to occur during this time, the potential for construction personnel to experience strong seismic ground shaking is less than significant.

#### **Operation & Maintenance – Less than Significant Impact**

Underground electric transmission facilities are generally not subject to direct effects of shaking because they are confined by surrounding soil. Design and construction of overhead facilities would conform to CPUC General Order 95, industry practice, and SDG&E internal structural design requirements. These transmission design requirements for wind loading combined with broken phase loading exceed those for seismic accelerations. With the application of engineering principles and compliance with design standards outlined in General Order 95 applied to minimize damage from seismic shaking, the risk of damage to the Proposed Project facilities is less than significant.

Additionally, SDG&E currently maintains and operates electric transmission, power, distribution and substation facilities throughout the Proposed Project area. SDG&E's existing facilities and operations and maintenance activities constitute the baseline against which the impacts of the Proposed Project are evaluated. Operations and maintenance activities for the Proposed Project would be similar to baseline conditions. Therefore, the operations and maintenance related seismic risk to people would not be materially different from existing conditions.

#### 4.6.4.4 <u>Question 6a(iii) – Expose people or structures to potential substantial adverse</u> <u>effects, including seismic-related ground failure, including Liquefaction?</u>

#### **Construction – Less Than Significant Impact**

Much of the Proposed Project alignment has been investigated by geotechnical reports prepared for previous SDG&E projects (Benton Engineering, Inc., 1972a and b; Geocon, Inc., 2012a and b) and no locations susceptible to liquefaction were identified. Review of the Proposed Project area terrain via aerial photographs in conjunction with this PEA evaluation also did not identify any structure locations in low-lying alluvial areas or other settings commonly susceptible to liquefaction. As described in Section 4.6.3.4, Geologic Hazards, a geotechnical investigation would be completed for the Proposed Project that would consider geotechnical conditions at each proposed structure location. The Proposed Project facilities' final designs would account for any substantive risks identified by the geotechnical study. Because the Proposed Project is not in terrain with a high susceptibility to liquefaction, and the low likelihood of a large earthquake occurring during the short construction period, the risk of construction personnel being exposed to earthquake-induced liquefaction is less than significant.

#### **Operation & Maintenance – Less Than Significant Impact**

As previously described, much of the Proposed Project alignment has been investigated by geotechnical reports prepared for previous SDG&E projects (Benton Engineering, Inc., 1972a and b; Geocon, Inc., 2012a and b) and no locations susceptible to liquefaction were identified. Review of the Proposed Project area terrain in conjunction with this PEA evaluation also did not identify any structure locations in low-lying alluvial areas or other settings commonly susceptible to liquefaction. A geotechnical investigation would be completed for the Proposed Project that would consider geotechnical conditions at each proposed structure location. The Proposed Project's final design in accordance with CPUC General Order 95, industry practice, and SDG&E internal requirements will account for any substantive risks identified by the geotechnical study so that the potential for damage to Proposed Project facilities from earthquake-induced liquefaction would be less than significant.

Additionally, SDG&E currently maintains and operates electric transmission, power, distribution and substation facilities throughout the Proposed Project area. SDG&E's existing facilities and operations and maintenance activities constitute the baseline against which the impacts of the Proposed Project are evaluated. Operations and maintenance activities for the Proposed Project would be similar to baseline conditions. Therefore, the operations and maintenance-related risk to people would not be materially different from existing conditions.

#### 4.6.4.5 <u>Question 6a(iv) – Expose people or structures to potential substantial adverse</u> <u>effects, including landslides?</u>

#### **Construction – Less than Significant Impact**

The Proposed Project alignment does not cross any landslide areas identified on published geologic maps reviewed (Kennedy and Siang, 2005; Kennedy, 1975). Additionally, much of the Proposed Project alignment has been investigated by three geotechnical reports prepared for previous SDG&E projects (Benton Engineering, Inc., 1972a and 1972b; Geocon, Inc., 2012a and 2012b) and no slope stability issues were identified. Review of the terrain via aerial photographs in conjunction with this PEA evaluation also did not identify any landslides in proximity to Proposed Project structures. Nevertheless, in areas of locally steep terrain, there is potential for landslides and other mass wasting to occur. Slope stability issues can be exacerbated by changes to grading, drainage or infiltration characteristics if proper precautions are not taken.

The Proposed Project would result in minimal change to surface grades, drainage or infiltration characteristics. The proposed transmission and power line facilities follow City streets and the existing SDG&E ROWs with associated access roads so nearly all access would be accomplished on existing access routes with smoothing and re-establishment of roads as needed. Minor grading for spur road construction could be required at a few structures. Stringing sites and laydown areas would be selected to utilize areas that would require little or no grading. Section B of the transmission line would be within a City street with the surface restored upon completion of construction. The primary graded features of the Proposed Project would be the permanent work pads at the locations where structure replacements are proposed on Sections A and D. Grading would be designed to retain existing drainage patterns. The volume of grading at most new structure sites would be less than 300 cubic yards of cut or fill per location, and the maximum cut or fill volume would be approximately 2,300 cubic yards. Construction disturbances would be stabilized when work is complete. The minimum grading needed for structure locations and prompt stabilization of construction disturbances would minimize the potential for the Proposed Project to adversely affect natural slope stability. A geotechnical investigation would be completed for the Proposed Project that would consider geotechnical conditions at each proposed structure location. The Proposed Project facilities final design in accordance with CPUC General Order 95, industry practice, and SDG&E internal requirements would account for any substantive risks identified by the geotechnical study so that the potential for landslide-related impacts to people and structures from Proposed Project construction would be less than significant.

#### **Operation & Maintenance – Less Than Significant Impact**

As previously described, the Proposed Project would result in minimal change to surface grades, drainage or infiltration characteristics and construction disturbances would be stabilized when

work is complete. The minimum grading and prompt stabilization of construction disturbances would minimize the potential for the Proposed Project to adversely affect natural slope stability. A geotechnical investigation would be completed for the Proposed Project that will consider geotechnical conditions at each proposed structure location. The Proposed Project facilities final design in accordance with CPUC General Order 95, industry practice, and SDG&E internal requirements will account for any substantive risks identified by the geotechnical study so that the potential for landslide-related impacts to people and structures from Proposed Project facilities would be less than significant.

Additionally, SDG&E currently maintains and operates electric transmission, power, distribution and substation facilities throughout the Proposed Project area. SDG&E's existing facilities and operations and maintenance activities constitute the baseline against which the impacts of the Proposed Project are evaluated. Operations and maintenance activities for the Proposed Project would be similar to baseline conditions.

#### 4.6.4.6 <u>Question 6b – Result in substantial soil erosion or the loss of topsoil?</u>

#### **Construction – Less Than Significant Impact**

Where construction would occur within public roads, parks or other developed areas there would be no loss of native soil. Where construction is outside of developed areas it would be along the existing ROW and transmission and power line corridor with associated access roads so that nearly all access would be accomplished on existing access routes. Minor grading for spur road construction could be required at a few structures. Stringing sites and laydown areas would be selected to utilize areas that would require little or no grading, thereby limiting impacts to soils. The primary soil disturbances would be the work pads at the locations where structure replacements are proposed on Sections A and D. Temporary soil disturbance during construction at these structure locations would typically be approximately one-half acre per site, with typically less than 0.2 acre of long-term disturbance per site. Soil erosion or loss of topsoil could result from excavation or grading activities during construction.

Soil erosion and topsoil loss would be controlled by implementing SDG&E's *BMP Manual* during design and construction of the Proposed Project. In addition, the Proposed Project would comply with the Construction General Permit which would include the preparation of a SWPPP (refer to Section 4.8 for additional information on the Construction General Permit). Surface disturbance would be minimized to the extent consistent with safe and efficient completion of the Proposed Project. Topsoil would be salvaged from areas where grading would otherwise result in a loss of topsoil, and the salvaged soil would be used to reclaim areas of temporary construction impact areas would be stabilized. Considering these measures, impacts to soil erosion and loss of topsoil would be less than significant.

#### **Operation & Maintenance – No Impact**

SDG&E currently maintains and operates electric transmission, distribution and substation facilities throughout the Proposed Project site. SDG&E's existing facilities and operations and maintenance activities constitute the baseline against which the impacts of the Proposed Project are evaluated. Operations and maintenance activities for the Proposed Project would be similar to baseline conditions. Soil erosion and topsoil loss would be controlled by implementing

SDG&E's *BMP Manual* for maintenance of Proposed Project facilities. Considering that operation and maintenance will be similar to existing conditions and that BMPs will be implemented, there will be no material effect on soil erosion or loss of topsoil.

#### 4.6.4.7 <u>Question 6c – Be located on a geologic unit that is unstable, or that would</u> become unstable as a result of the project, and potentially result in on-site or offsite landsliding, lateral spreading, subsidence, liquefaction, or collapse?

#### **Construction – Less than Significant Impact**

The potential for liquefaction and landslide related impacts are addressed in Sections 4.6.4.4 and 4.6.4.5, respectively.

Construction would have no subsidence impact because the Proposed Project does not involve the withdrawal of subsurface fluids that can cause subsidence.

As described in Section 4.6.3.4, Geologic Hazards, a geotechnical investigation would be completed for the Proposed Project that would consider geotechnical conditions at each proposed structure location. The finals design of the Proposed Project facilities would account for any substantive risks identified by the geotechnical study, including lateral spreading or collapsible soils. Considering this and the low likelihood of a large regional earthquake during the short period of construction, the risk of lateral spreading or issues related to collapsible soils during construction is less than significant.

#### **Operation & Maintenance – Less than Significant Impact**

The potential for liquefaction and landslide related impacts are addressed in Sections 4.6.4.4 and 4.6.4.5, respectively. Operation and maintenance of the Proposed Project would have no subsidence impact because the Proposed Project does not involve the withdrawal of subsurface fluids that can cause subsidence. SDG&E currently maintains and operates existing electric power, distribution and substation facilities throughout the Proposed Project site. SDG&E's existing facilities and operations and maintenance activities constitute the baseline against which the impacts of the Proposed Project are evaluated. There is nothing about the Proposed Project operations and maintenance that differs from the existing conditions in terms of collapsible soils or lateral spreading, and thus there are no potential impacts.

#### 4.6.4.8 <u>Question 6d – Be located on expansive soil, as defined by article 1803.5 of the</u> <u>California Building Code, creating substantial risk to life or property?</u>

#### **Construction – Less Than Significant Impact**

Expansive soils are clayey soils that have a high plasticity index. Typical shallow reinforced concrete spread footing foundations, such as those for buildings and other foundations covering a considerable area of ground, can be affected by expansive soils if such soils are present close to the ground surface. The Proposed Project does not include any spread footing foundations that could be adversely affected by expansive soils. The geotechnical study for the Proposed Project would include evaluation of soil conditions, and if expansive soils are identified at any proposed structure locations, the footings at these locations would be designed to accommodate the soil conditions identified. Considering that the Proposed Project does not include any foundations
susceptible to damage from expansive soils, the potential for expansive soils to occur in the Proposed Project area does not create a substantial risk to life or property and impacts would be less than significant.

### **Operation & Maintenance – No Impact**

SDG&E currently maintains and operates existing electric power, distribution and substation facilities throughout the Proposed Project site. SDG&E's existing facilities and operations and maintenance activities constitute the baseline against which the impacts of the Proposed Project are evaluated. There is nothing about the Proposed Project operations and maintenance that differs from the existing conditions in terms of high plasticity soils, and thus there are no potential operation and maintenance impacts. Any future potential maintenance-related construction projects would be evaluated under General Order 131-D and CEQA for purposes of assessing whether further CPUC approval is required.

### 4.6.4.9 <u>Question 6e – Have soils incapable of adequately supporting the use of septic</u> tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

### **Construction and Operation & Maintenance – No Impact**

The Proposed Project would not involve the installation of a septic tank or alternative wastewater disposal system; therefore, no impact would occur.

### 4.6.4.10 <u>Question 6f – Result in the loss of availability of a known mineral resource that</u> would be of value to the region and residents of the state?

### **Construction and Operation & Maintenance – No Impact**

Portions of the Proposed Project, including much of the route from near Interstate 15 eastward, is classified by the State as MRZ-2. The MRZ-2 designation encompasses areas where the State has determined adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence. The MRZ-2 lands in the Proposed Project area are classified as MRZ-2 for their potential to contain valuable aggregate resources (e.g., sand and gravel). All Proposed Project facilities would be located within existing public roadways or SDG&E ROWs. No mineral rights would be affected.

# 4.6.4.11 Question 6g – 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?

### **Construction and Operation & Maintenance – No Impact**

The *City of San Diego General Plan* does not identify any locally important mineral resources in the Proposed Project area.

The *Poway Comprehensive Plan* does not identify any valuable mineral resource other than the aggregate resources recognized by the State as described in Section 4.6.4.10.

All Proposed Project facilities would be located within existing public roadways and parks or SDG&E ROWs. No mineral rights would be affected.

### 4.6.5 Project Design Features and Ordinary Construction/Operating Restrictions

The Proposed Project has been designed and would be constructed consistent with SDG&E's policy to implement the SDG&E's *BMP Manual*. This manual includes design and construction BMPs to control soil erosion.

Proposed Project facilities would be designed and constructed to comply with the following standards and regulations:

- CPUC General Order 95, which designates rules and regulations for overhead electric line engineering;
- A geotechnical study would be conducted for the Proposed Project under the direction of a California-licensed Geotechnical Engineer or Certified Engineering Geologist, and recommendations identified in the geotechnical report will be carried out; and
- Construction General Permit, which will require the preparation and implementation of a SWPPP including BMP measures to control soil erosion (refer to Section 4.8, Hydrology and Water Quality for additional information on the Construction General Permit).

The Proposed Project is designed to minimize ground and soil disturbance through use of existing access routes.

Implementation of the engineering and regulatory standards, practices and guidelines, previously described in this section would ensure that impacts related to geologic hazards and resources would remain less than significant.

### 4.6.6 Applicant Proposed Measures

The Proposed Project would have no potentially significant impacts relating to geology, soils, and mineral resources; therefore, no APMs are proposed.

### 4.6.7 Detailed Discussion of Significant Impacts

Based upon the preceding analysis, no significant impacts relating to geology, soils, or mineral resources are anticipated from the Proposed Project.

### 4.6.8 References

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- City of San Diego. 2008. City of San Diego General Plan.
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Appendix 4.7-A EDR Database Search Results

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Would the project:		Potentially Significant Impact	Potentially Significant Unless APMs Incorporated	Less than Significant Impact	No Impact
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			Ø	
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?			Ø	
с.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			V	
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?				Z
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 for people residing or working in the project area?				Ŋ
f.	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				V
g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				
h.	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			Ø	

### 4.7.1 Introduction

This section of the PEA describes the existing conditions and potential Proposed Project-related impacts from hazards or hazardous materials associated with the construction, operation, and maintenance of the Proposed Project. Potential impacts relating to hazards and hazardous materials would be less than significant through implementation of project design features and ordinary construction and operating restrictions, as well as through adherence to applicable laws and regulations.

### 4.7.2 Methodology

### 4.7.2.1 <u>Hazardous Materials and Wastes Database Search</u>

An Environmental Data Resources, Inc. (EDR) database search was obtained for the Proposed Project alignment and surrounding area. The EDR data search included more than 60 different federal and state environmental data tracking sites that provide listings of sites with records of hazardous material handling or releases to the environment. The EDR data search report for the Proposed Project area was reviewed to determine whether there are known sites with past or ongoing hazardous materials releases that could affect or be affected by the Proposed Project. The EDR report has been included as Appendix 4.7-A.

### 4.7.2.2 <u>Emergency Preparedness, Response and Evacuation Plans</u>

Emergency planning and response documents from the City of San Diego, City of Poway, and County of San Diego were reviewed to determine if they could affect or be affected by the Proposed Project. These included the San Diego County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) and high fire hazard severity zone maps published by the City of Poway Fire Department and City of San Diego Fire-Rescue Department.

The *City of San Diego General Plan* and *Poway Comprehensive Plan* were reviewed for goals, objectives, and policies relevant to hazards and hazardous materials considerations for the Proposed Project.

### 4.7.3 Existing Conditions

### 4.7.3.1 <u>Regulatory Setting</u>

The following section provides an overview of pertinent federal, state and local hazardous materials and safety regulations applicable to the Proposed Project.

### Federal

### Resource Conservation and Recovery Act

The federal Resource Conservation and Recovery Act (RCRA) established a program administered by the EPA for the regulation of the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA was amended in 1984 by the Hazardous and Solid Waste Act (HSWA), which affirmed and extended the "cradle to grave" system of regulating hazardous wastes. The use of certain techniques for the disposal of some hazardous wastes was specifically prohibited by HSWA. Individual states may implement hazardous waste programs under RCRA with USEPA approval.

### Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), which is commonly referred to as Superfund, is a federal statute that was enacted in 1980 to address abandoned sites with hazardous waste disposal and/or contamination (42 U.S.C. 9601, et seq.). CERCLA was amended in 1986 by the Superfund Amendments and Reauthorization Act

(SARA) and by the Small Business Liability Relief and Brownfields Revitalization Act of 2002. CERCLA establishes prohibitions and requirements concerning closed and abandoned hazardous waste sites; establishes liability of persons responsible for releases of hazardous waste at these sites; and establishes a trust fund to provide for cleanup when no responsible party can be identified. The trust fund is funded largely by a tax on the chemical and petroleum industries. CERCLA also provides federal jurisdiction to respond directly to releases or impending releases of hazardous substances that may endanger public health or the environment.

### Occupational Safety and Health Administration

The OSHA regulations are intended to create a safe workplace and are found at 29 CFR, Part 1910, Subpart H. They include procedures and standards for safe handling, storage, operation, remediation, and emergency response activities involving hazardous materials and waste. Section 1910.1200 (Hazard Communication) contains requirements for training and communicating hazards to workers engaging in the handling of hazardous materials. Section 1910.1000 (Air Contaminants) contains standards for safe worker exposure to toxic and hazardous air contaminants. Section 1910.120 (Hazardous Waste Operations and Emergency Response) contains requirements for worker training programs, medical surveillance for workers engaging in handling hazardous materials or wastes and hazardous material, and waste site emergency and remediation planning, for those who are engaged in one of the following operations as specified by Sections 1910.120(a)(1)(i-v) and 1926.65(a)(1)(i-v):

- Clean-up operations required by a governmental body, whether federal, state, local, or other, involving hazardous substances, that are conducted at uncontrolled hazardous waste sites;
- Corrective actions involving clean-up operations at sites covered by RCRA, as amended (42 U.S.C. 6901, *et seq.*);
- Voluntary clean-up operations at sites recognized by a federal, state, local, or other governmental body as uncontrolled hazardous waste sites;
- Operations involving hazardous wastes that are conducted at treatment, storage, and disposal facilities regulated by Title 40 CFR Parts 264 and 265 pursuant to RCRA, or by agencies authorized under agreement with EPA to implement RCRA regulations; or
- Emergency response operations for releases of, or substantial threats of releases of, hazardous substances regardless of the location of the hazard.

The Occupational Safety and Health Act of 1970 contain specific regulations that ensure worker safety in the presence of certain hazardous substances, such as lead and asbestos.

### State

### California Health and Safety Code, Section 25501

Section 25501(p) of the California Health and Safety Code provides the following definition:

Hazardous material means any material that, because of its quantity, concentration, or physical or chemical characteristics, may either pose a significant present or potential hazard to human health and safety or to the

environment if released into the workplace or the environment. Hazardous materials include, but are not limited to, hazardous substances, hazardous wastes, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

### California Hazardous Waste Control Law

The California HWCL is codified at California Health and Safety Code Chapter 6.5 and administered by the CalEPA to regulate hazardous wastes within the State of California. Both the HWCL and the federal hazardous waste regulations under RCRA apply in California and the HWCL is equally or more stringent than hazardous waste regulations under the RCRA. For the purposes of these laws, a material is a "waste" when it is first generated and determined to no longer have a practical use. It is a hazardous waste if it is a "waste" with hazardous properties. The DTSC is the primary agency in charge of enforcing both the federal and state hazardous waste laws in California. The DTSC regulates hazardous waste and pursues avenues of reducing hazardous waste generation in California.

### California Code of Regulations, Title 22, Division 4.5

The CCR, Title 22, Division 4.5 regulates the management of hazardous waste in California pursuant to the HWCL. According to CCR Title 22 Division 4.5 (Chapter 11 Article 3), wastes having a characteristic of toxicity, ignitability, corrosivity or reactivity must be managed as hazardous waste in accordance with CCR Title 22 Division 4.5 unless they are otherwise exempted. CCR Title 22 Division 4.5 Chapter 11, Appendix X, lists 791 chemicals and about 300 common materials that are hazardous waste when disposed of. CCR Title 22 Division 4.5 Chapter 12 identifies detailed requirements for generators of hazardous waste including specific criteria for storing the waste to prevent release to the environment, labeling of waste containers, packaging and placarding for transportation, safety and training for workers managing hazardous waste, and generator recordkeeping. CCR Title 22 Division 4.5 Chapter 13 identifies detailed requirements for transporters of hazardous waste and other chapters identify specific requirements for transporters of hazardous waste and other chapters identify specific requirements for transporters of hazardous waste and other chapters identify specific requirements for transporters of hazardous waste and other chapters identify specific requirements for transporters of hazardous waste and other chapters identify specific requirements for transporters of hazardous waste and other chapters identify specific requirements for transporters of hazardous waste and other chapters provide a "cradle-to-grave" system for safe management of hazardous waste.

If soil affected by a hazardous material is excavated from a construction site it must be managed as a hazardous waste in accordance with CCR Title 22 Division 4.5 if the toxic, ignitable, corrosive or reactive thresholds parameters in Title 22 Division 4.5 are met. Remediation (cleanup and safe removal/disposal) of hazardous wastes found at a site is required if excavation of these materials is performed; it may also be required if certain other activities are proposed. If soil or groundwater at an impacted site exceeds health- and safety-based regulatory thresholds, then remediation of the site may be required by jurisdictional agencies. Cleanup requirements are determined on a case-by-case basis by jurisdictional agencies in accordance with regulations, procedures and policies within their jurisdiction.

### California Occupational Safety and Health Administration

The California Occupational Safety and Health Administration (Cal/OSHA) is the primary agency responsible for worker safety in the handling and use of chemical products in the

workplace. Cal/OSHA standards are generally more stringent than federal OSHA regulations, although Cal/OSHA has adopted and implements all of the federal standards within the state of California. The employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 CCR Sections 337-340). The regulations specify requirements for employee training, availability of safety equipment, accident prevention programs, and hazardous substance exposure warnings. Cal/OSHA regulations also regulate safe exposure to hazardous materials in hazardous material remediation and hazardous waste operations (8 CCR 5192) and require employers to communicate hazards to workers (8 CCR 5194). Similar to the federal OSHA, Cal/OSHA contains requirements to prevent worker exposure to certain types of hazardous substances in the work place, such as asbestos and lead.

### Hazardous Materials Disclosure Programs

The Unified Program administered by the State of California consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities for the state's environmental and emergency management programs, which include Hazardous Materials Release Response Plans and Inventories (business plans), the California Accidental Release Prevention Program, and the Underground Storage Tank Program. The Unified Program is implemented at the local government level by Certified Unified Program Agencies (CUPAs).

### California Public Utilities Commission

CPUC originally adopted General Order 95 in 1941. General Order 95 governs the design, construction, and maintenance of overhead electrical lines. Rule 31.1 of General Order 95 generally requires that overhead electrical lines be designed, constructed, and maintained in accordance with accepted good practices for the given conditions known at the time. Rule 35 of General Order 95 establishes requirements for tree trimming.

On January 18, 2012, after a three-year rulemaking to review measures to reduce fire hazards associated with overhead power lines and communication facilities, the CPUC issued D.12-01-032 which adopted significant revisions to General Orders 95, Overhead Electric Line Construction, and 165 Inspection Requirements for Electric Distribution and Transmission Facilities. Phase I and Phase II revisions to the General Orders addressed vegetation management practices, inspection cycles, corrective maintenance timeframes and other fire reduction measures in fire threat zones.

### Local

### County of San Diego

The County of San Diego Hazardous Materials Division is the certified local CUPA for the Proposed Project region, regulating hazardous material business plans, hazardous waste and tiered permitting, underground storage tanks, above ground petroleum tanks and risk management.

### City of San Diego

The City of San Diego Fire-Rescue Department is responsible for the preparation, maintenance and execution of fire preparedness and management plans for the City, and is a participating jurisdiction in disaster preparedness under the San Diego County MJHMP described in Section 4.7.3.2, Emergency Response and Evacuation Plans.

The *City of San Diego General Plan*, Public Facilities, Services and Safety Element includes a strategic framework, goals, objectives and actions for disaster preparedness and hazard mitigation. The General Plan does not include any goals or objectives requiring specific actions or thresholds for the Proposed Project, and the Proposed Project does not conflict with any aspect of the General Plan related to hazards or hazardous materials or disaster preparedness. The Proposed Project would be complementary to General Plan Public Facilities, Services and Safety Element Goals 3, 4 and 5 related to reducing the possibility of damage and losses to existing assets from fires and natural disasters by replacement of wood structures with steel structures and by adherence to current design standards for all proposed facilities.

### City of Poway

Emergency preparedness and response in the City of Poway is provided by the Department of Safety Services which is comprised of the Fire Department and the Law Enforcement Department. The City of Poway Fire Department's mission is to reduce the loss of life and property from fire, medical, and environmental emergencies through education, hazard reduction, and response. The Fire Department is comprised of three divisions: Fire Prevention and Administration; Fire Suppression, also known as the Operations Division; and Emergency Medical Services Division. The Fire Prevention and Administration Division provides plan review and inspections to ensure compliance with state and local fire and life safety regulations. This division is also responsible for adoption of fire and life safety codes, public outreach, fire investigations, and collaboration on defensible space. The Fire Suppression Division is responsible for fire suppression, rescue, emergency medical services, hazardous materials mitigation, and special assistance. The City implements a comprehensive Emergency Operations Plan and is a participating jurisdiction in disaster preparedness under the San Diego County MJHMP described in Section 4.7.3.2, Emergency Response and Evacuation Plans.

The *Poway Comprehensive Plan* Hazard Management Element includes goals, policies and strategies for disaster preparedness and hazard mitigation. The Comprehensive Plan does not include any goals or objectives requiring specific actions or thresholds for the Proposed Project, and the Proposed Project does not conflict with any aspect of the Comprehensive Plan related to hazards or hazardous materials or disaster preparedness. The Proposed Project would be complementary to Comprehensive Plan Hazard Management Element Goal VII Fire Protection Policy by reducing the possibility of damage and losses to existing assets from fires and natural disasters by replacement of wood structures with steel structures and by adherence to current design standards for all proposed facilities.

### SDG&E Standards, Plans and Procedures

### SDG&E's Electric Standard Practice 113.1 (Wildland Fire Prevention and Fire Safety)

SDG&E's *Electric Standard Practice 113.1* constitutes SDG&E's wildland fire prevention and fire safety standards for all activities, including construction activities such as those included as part of the Proposed Project. The purpose of *Electric Standard Practice 113.1* is to formalize standard operating procedures that would, among other things: improve SDG&E's ability to prevent the ignition of any fire; set standards for tools and equipment to assist with rapid response to small fires; incorporate federal, state and local requirements into standard business practices; establish "Red Flag Warning" restrictions; set criteria for when a formal fire plan is required; and establish a template and requirements for formal fire plans.

### SDG&E Fire Prevention Plan

The SDG&E Fire Prevention Plan was prepared in compliance with CPUC Commission Decision 12-01-032 (Fire Safety Order) and provides "a comprehensive inventory of the organizational and operational activities that SDG&E undertakes in order to address the risk of fire in the SDG&E service territory."

SDG&E undertakes and implements numerous fire prevention and safety programs, procedures, and protocols and the *SDG&E Fire Prevention Plan* includes descriptions of SDG&E fire prevention and safety procedures and programs including, but not limited to, the following:

- Fire threat and risk area mapping;
- Operational practices to reduce the risk of fires;
- Fire prevention outreach and training programs;
- Field practice guidelines;
- Advanced vegetation management;
- Fire Potential Index; and
- Fire-hardening practices, including:
  - Design standards
  - o Construction standards
  - Facility inspection
  - Oversight of activities in rural areas
  - Wood-to-Steel Projects

As part of SDG&E's fire threat and risk mapping program, SDG&E utilizes a network of approximately 145 weather stations to monitor for high risk weather conditions, such as extreme winds.

### **Project Fire Plan**

As described in Section 3.8, a project-specific fire prevention plan has been developed for the Proposed Project consistent with *Electric Standard Practice 113.1* and the *SDG&E Fire Prevention Plan*. The project-specific fire plan identifies project-specific risk-related activities as well as measures (including tools and procedures) to address said risks.

### 4.7.3.2 <u>Emergency Response and Evacuation Plans</u>

### State

The State Emergency Plan outlines the emergency management system for use during all emergencies within the State of California. The State Emergency Plan is developed, maintained, and implemented by the California Office of Emergency Services (OES). 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.

### San Diego County

The San Diego County OES coordinates the County-wide response effort in the event of a disaster situation. San Diego County OES is responsible for notifying appropriate agencies in the event of a disaster, as well as coordinating all responding agencies. The Unified Disaster Council is the governing body of San Diego County OES, and is chaired by the Chair of the San Diego County Board of Supervisors, and includes representatives from the 18 incorporated cities of the County. OES serves as staff to the Unified Disaster Council and acts as a liaison between the incorporated cities, the State Office of Emergency Services and Federal Emergency Management Agency (FEMA), as well as non-governmental agencies such as the American Red Cross.

The San Diego County OES implements the San Diego County 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. The MJHMP was prepared in accordance with the Federal Disaster Mitigation Act of 2000. The preparation of the MJHMP qualifies the County for post-disaster funds from the Hazard Mitigation Grant Program.

### Local

Within most of the Proposed Project area, the City of San Diego Fire-Rescue Department oversees emergency management. The Department is tasked with:

- Coordination of major emergency (disaster) mitigation
- Preparedness
- Response
- Disaster recovery processes through cooperative efforts

The City of San Diego Fire-Rescue Department 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.

A limited portion of the Proposed Project is in the City of Poway where emergency management is the responsibility of the Department of Safety Services. The City of Poway Department of Safety Services implements a comprehensive Emergency Operations Plan and is a participating jurisdiction in disaster preparedness under the San Diego County MJHMP described in this Section 4.7.3.2, Emergency Response and Evacuation Plans.

### 4.7.3.3 <u>Hazardous Materials Setting</u>

Hazardous materials would be used and stored during construction, operation, and maintenance of the Proposed Project. The following subsections describe the typical hazardous materials utilized during construction, operation, and maintenance and the hazardous materials potentially present along the Proposed Project alignment including existing wastes and materials (hazardous materials sites).

### Hazardous Materials Utilized during Construction

Construction activities would involve the periodic and routine transport and use of several common hazardous materials such as hydrocarbon fuels, lubricating oils, internal combustion engine oils, transmission fluid, hydraulic fluid, and cartridges containing primer for ignition and nitrocellulose propellant for gas production in the event that blasting is necessary.

### Hazardous Materials Utilized During Operation and Maintenance

Operation and maintenance of the Proposed Project would not be substantially different from existing operation and maintenance practices and activities that SDG&E currently performs along the existing ROW. Operation and maintenance of the Proposed Project would be subject to the same laws and regulations governing the handling and disposal of hazardous materials. All relevant local, state and federal regulations would be followed.

### Hazardous Materials Sites near the Proposed Project

There are no sites with known hazardous materials releases on the Proposed Project site. Table 4.7-1, Hazardous Materials Sites Adjacent to the Proposed Project, lists the closest known hazardous materials release sites in the Proposed Project area. These sites were determined from an EDR database search of the area surrounding the Proposed Project alignment (see Appendix 4.7-A). The EDR data search included more than 60 different federal and state environmental data tracking sites that provide listings of sites with records of hazardous material handling or releases to the environment. Many of the lists that are included in the database search are not indicative of hazardous materials releases, but several of the lists specifically identify known past or present hazardous materials release sites and known waste disposal sites. As shown in Table 4.7-1, several sites occur in proximity to the Proposed Project with listings on databases indicative of a past or present hazardous materials release. As shown in the descriptions in Table 4.7-1, the CHMIRS database sites are isolated release incidents with immediate cleanup and the occurrence on this list is not equivalent to being on the CORTESE list. The LUST and HIST CORTESE sites are equivalent to being on the CORTESE list.

HIST CORTESE (i.e., historic Cortese) list means the site was formerly on the CORTESE list before that list was discontinued and integrated into lists maintained by individual agencies. The LUST designation indicates a leaking underground storage tank (or LUST) site and is equivalent to being on the CORTESE list. Table 4.7-1 shows that one site with an open file occurs near the Proposed Project; the Shell Service Station at 12929 Rancho Peñasquitos Blvd.

Site Name/Address	Separation Distance/ Closest Project Structure	Hazardous Materials Release List	Description
Carmel Valley Road and Collins Ranch Road San Diego, CA	Underground transmission facilities are proposed at this location	CHMIRS	Sewage spill reported in 2001. Contained and cleaned up.
Mobil Service Station 12849 Rancho Peñasquitos Blvd San Diego, CA	400+ feet southwest of Structure No. P26	LUST, HIST CORTESE	Gasoline leak identified in 1989 was remediated by soil excavation and disposal in 1990. Case closed in 1995.
12849 Rancho Peñasquitos Blvd San Diego, CA	400+ feet south- southwest of Structure No. P26	CHMIRS	Spill of one ounce of gasoline reported in 2010 was cleaned up by Responsible Party.
Unocal Service Station 12860 Rancho Peñasquitos Blvd San Diego, CA	400+ feet southwest of Structure No. P26	LUST, HIST CORTESE, SAM	Gasoline leak discovered in 1994 impacted groundwater primarily onsite. Plume determined to be degrading. Case closed in 2013.
Shell Service Station 12929 Rancho Peñasquitos Blvd San Diego, CA	Approximately 200 feet west of Structure No. P26	LUST, HIST CORTESE	Gasoline overfill spill identified in 1988 affected shallow groundwater. Interim remedial action taken. LUST Site Assessment status: Open. Nearest proposed structure is on a hill and upgradient from this site.
ExxonMobile Oil Corp 10555 Scripps Poway Parkway San Diego, CA	Approximately 400 feet southwest of Structure No. P21	CHMIRS	Spill of one ounce of gasoline reported in 2011 was cleaned up by Responsible Party.

Table 4.7-1: Hazardous Materials Sites Adjacent to the Proposed Project

### 4.7.3.4 Hazards Setting

### **Existing Electric Substations and Transmission and Power Line Facilities**

The Proposed Project includes the replacement and relocation of existing above ground electric transmission and power line facilities, and the addition of one new transmission line. The Proposed Project above ground facilities would be located entirely within existing SDG&E ROWs where similar facilities already exist. These existing facilities constitute the baseline from which potential hazard and hazardous materials impacts are evaluated. There currently are no electric transmission lines in Carmel Valley Road where the Proposed Project would install underground transmission lines.

### Fire Hazards

Portions of the Proposed Project alignment are located within or adjacent to undeveloped land with potential for wildland fires. SDG&E has designated areas within its service territory as a Fire Threat Zone based on Cal Fires Wildland Fire Threat mapping assessment and local factors such as humidity, air temperature, prevalence of strong winds, and existing fuel type (see Figure 4.7-1, Proposed Route Fire Threat Zone Map). These areas are designated as such due to the wildland fire threat relative to the fuel, weather, and topography. The City of San Diego has mapped most of the Proposed Project area as having Very High Fire Hazard Severity (City of San Diego, 2013). The portion of the Proposed Project within the City of Poway is also mapped to be within a Very High Fire Hazard Zone (City of Poway, 2010). However, fire hazard designations are based in part on extreme weather conditions (which do not occur all the time) and the status of the fire threat would vary based on the local, site specific conditions. Therefore, even though the Proposed Project may be located within the geographic boundaries of areas designated as fire threat areas, the actual fire threat does not exist if the required local atmospheric conditions are not present.

SDG&E has developed operating protocols and safety standards that minimize the risk of wildland fires during SDG&E construction activities. Specifically, wildland fire prevention during construction would be governed internally within SDG&E through implementation of a project-specific fire plan as previously discussed in Section 4.7.3.1.

### 4.7.3.5 <u>Schools</u>

Several schools are located within a 0.25 mile of the Proposed Project including: Mount Carmel High School approximately 150 feet distant; Scripps Ranch Innovations Academy approximately 350 feet distant; Dingeman Elementary School approximately 650 feet distant; The Cambridge School approximately 550 feet distant; Ellen Browning Scripps Elementary School approximately 950 feet distant; Torrey Hills School approximately 950 feet distant; and the Kids Bay Learning Center approximately 100 feet distant.

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## 4.7.3.6 <u>Airports</u>

There are no airports, public or private, within the immediate vicinity of the Proposed Project. The closest airport to the Proposed Project is located more than four miles to the south on MCAS Miramar. The Proposed Project falls within the MCAS Miramar Airport Influence Area (AIA) and transects 12 communities that are subject to the Miramar Airport Land Use Compatibility Plan (ALUCP). Specifically, the ALUCP safety zone factor is applicable to the Los Peñasquitos Canyon Preserve and Torrey Hills communities which fall within the Accident Potential Zone II and Transition Zone, respectively. Proposed development is required to be reviewed for compatibility with the Safety Compatibility Criteria Table 132-15D. Additionally, six of the communities within the AIA and transected by the Proposed Project are subject to the ALUCP Airspace Protection Factor, which requires FAA notification for any new development. The FAA notice requirements [40 CFR 77.9(b)] include notification to FAA for any construction or alteration that exceeds an imaginary surface of specified slopes up to 20,000 feet from some airports. With the site more than four miles from the airport, it is beyond any such airspace. FAA notice is also required for any construction or alteration that exceeds 200 feet above the ground surface [40 CFR 77.9(a)] and no Proposed Project structure would exceed this height. If any spans exceed this height, aerial marking (marker balls) would be utilized pursuant to FAA regulations.

### 4.7.4 Potential Impacts

### 4.7.4.1 Significance Criteria

Thresholds of impact significance were derived from Appendix G of the *CEQA Guidelines*. Under these guidelines, the Proposed Project could have a potentially significant impact regarding hazards and hazardous materials if it would:

- a) Create a significant hazard to public health 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 one-quarter 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 for people residing or working in the project area;
- f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area;
- g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or

h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

# 4.7.4.2 <u>Question 7a - Create a significant hazard to public health or the environment</u> through the routine transport, use, or disposal of hazardous materials?

### **Construction – Less Than Significant Impact**

Vehicles and equipment necessary for construction could contain or require the temporary, shortterm use of potentially hazardous substances, such as fuels, lubricating oils, and hydraulic fluids. The potential exists for an accidental release of hazardous materials during construction and refueling activities. The release of these materials has the potential to impact construction workers, the public and the environment if they are not properly contained and removed. Blasting agents, if needed, also could present a hazard of injury or property damage if improperly handled.

SDG&E's ordinary construction restrictions and Project Design features minimize the risk of a significant hazard. For example, hazardous materials accident prevention would be through adherence to relevant state and federal hazardous materials laws and regulations and BMPs. SDG&E, and all contractors involved in the construction of the Proposed Project, would implement standard operational procedures to ensure that potential impacts resulting from hazardous material transport, use, storage and disposal remain less than significant.

Typical BMPs could include, but would not be limited to, construction practices such as the use of absorbent pads for spill containment, specified locations for construction vehicle refueling, and a daily vehicle inspection schedule designed to identify leaking fuels and/or oils as early as possible.

The construction contractors would also implement (in addition to regulatory and SDG&E requirements) their own compliance management programs to ensure that regulatory requirements are adhered to and that worker and public safety are secured.

### **Operation & Maintenance – No Impact**

SDG&E currently maintains and operates existing electric transmission, power, distribution and substation facilities throughout the Proposed Project area. SDG&E's existing facilities and operations and maintenance activities constitute the baseline against which the impacts of the Proposed Project are evaluated. Operations and maintenance activities for the Proposed Project would be similar to baseline conditions. Operation and maintenance of the underground transmission lines would not generally require the use of hazardous materials that could pose a material risk to the public or the environment. All herbicides utilized during maintenance around transmission and power line structures would follow SDG&E's existing procedures for application of herbicides and would not be substantially different from current herbicide utilization within the Proposed Project area. Considering these factors, there would be no operation and maintenance impacts.

# 4.7.4.3 Question 7b - 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?

### **Construction – Less than Significant Impact**

As discussed under Section 4.7.4.2, construction of the Proposed Project would include the handling and use of common hazardous materials such as fuels and lubricants. While the potential for upset conditions to cause a release of these materials does exist, the chances of an upset or accident condition resulting in a substantial hazard to the public or the environment due to a hazardous material release is considered low. The use of hazardous materials during construction would not require transportation of hazardous materials in unusual quantities or with unusual risks compared to typical construction projects. In addition, SDG&E's standard operational procedures would further minimize the potential risk of upset and/or accidental release of hazardous substances creating a significant adverse environmental effect. Therefore, impacts are anticipated to be less than significant.

### **Operation & Maintenance – No Impact**

SDG&E currently maintains and operates existing electric transmission, power, distribution and substation facilities throughout the Proposed Project area. SDG&E's existing facilities and operations and maintenance activities constitute the baseline against which the impacts of the Proposed Project are evaluated. Operations and maintenance activities for the Proposed Project would be similar to baseline conditions. Operation and maintenance of the underground transmission lines would not generally require the use of hazardous materials that could pose a reasonably foreseeable hazardous material upset risk to the public or the environment. Considering these factors, there would be no operation and maintenance impacts.

# 4.7.4.4 Question 7c - Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

### **Construction – Less Than Significant Impact**

As described in Section 4.7.3.5, several schools exist within a 0.25 mile of the Proposed Project and most are located approximately 0.1 to 0.2 miles distant. The closest school to the Proposed Project alignment is the Kids Bay Learning Center located approximately 100 feet from the Proposed Project adjacent to SR-56 near I-15 in the Rancho Peñasquitos community. With the implementation of standard operational procedures as well as BMPs, construction of the Proposed Project is not expected to result in the release of hazardous emissions, or hazardous materials in the vicinity of any sensitive receptors including schools. Construction of the Proposed Project would include the handling and use of hazardous substances (refer to Section 4.7.3.3), however, the utilization and transport of these materials does not represent a significant risk to any existing schools. Therefore, the impact is anticipated to be less than significant.

### **Operation & Maintenance – No Impact**

SDG&E currently maintains and operates existing electric transmission, power, distribution and substation facilities throughout the Proposed Project site. SDG&E's existing facilities and

operations and maintenance activities constitute the baseline against which the impacts of the Proposed Project are evaluated. Operations and maintenance activities for the Proposed Project would be similar to baseline conditions. Considering these factors, there would be no operation and maintenance impacts.

# 4.7.4.5 Question 7d - 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?

### **Construction, Operation, and Maintenance – No Impact**

A review of standard and supplemental environmental databases indicate that the Proposed Project is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, or any superseding agency list. All except one of the sites identified in Table 4.7-1 are cases that have been closed or small incidents that have been remedied. The exception is one open case where overfilling at a gasoline station impacted groundwater down-gradient and approximately 200 feet west of proposed Structure No. P26. This site would not impact the Proposed Project footprint due to distance and gradient direction. Therefore, no impacts are anticipated.

### 4.7.4.6 Question 7e - For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

### **Construction, Operation, and Maintenance – No Impact**

The Proposed Project is not located within an existing airport land use plan, however, portions of the Proposed Project are located within the AIA for the MCAS Miramar airport. While the MCAS Miramar airport is the closest airport to the Proposed Project, it is located more than four miles south of the Proposed Project. Therefore, construction, operation, and maintenance of the Proposed Project would result in no related safety hazards for people residing or working in the Proposed Project area and no impacts are anticipated.

# 4.7.4.7 Question 7f - For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

### **Construction – No Impact**

The Proposed Project is not located within the vicinity of a private airstrip. There are no airstrips closer than MCAS Miramar, which is located more than four miles to the south. Therefore, construction, operation, and maintenance of the Proposed Project would result in no related safety hazards for people residing or working in the Proposed Project area and no impacts are anticipated.

### 4.7.4.8 <u>Question 7g - Impair implementation of or physically interfere with an adopted</u> <u>emergency response plan or emergency evacuation plan?</u>

### **Construction – Less Than Significant Impact**

The Proposed Project would occur within SDG&Es existing ROWs and underground in an existing franchise position through Carmel Valley Road. Temporary construction with appropriate traffic controls would occur as needed for installation of Proposed Project facilities. Emergency response planning would not be impacted during construction as streets would remain open to emergency vehicles throughout construction. Temporary lane closures would be needed for underground transmission line construction in Carmel Valley Road. Although this could impact traffic flow during an emergency, construction within public roadways would be conducted pursuant to approved traffic control plans that would ensure emergency access is preserved during construction activities. In addition, SDG&E would coordinate as-needed with local emergency response agencies during construction within roadways, as outlined within Section 4.14, Transportation and Traffic. With traffic management practiced in accordance with City requirements and no expected complete road closures, impacts on emergency response or emergency evacuation routes would be less than significant.

### **Operation & Maintenance – Less than Significant Impact**

SDG&E currently maintains and operates existing electric transmission, power, distribution and substation facilities throughout the Proposed Project site. SDG&E's existing facilities and operations and maintenance activities constitute the baseline against which the impacts of the Proposed Project are evaluated. Operations and maintenance activities for the Proposed Project would be similar to existing conditions. An exception would be operation and maintenance of the underground transmission lines that would require occasional access to ten splice vaults typically in the median of Carmel Valley Road and within the entrance to Black Mountain Ranch Community Park. Access to these splice vaults could impact traffic flow during an emergency. Due to their location, access to the splice vaults may require encroachment permits from the City of San Diego. As part of the encroachment permit process, appropriate traffic control measures (as approved by the City) would be required to be implemented during access of the splice vaults whenever traffic flow could be affected. Finally, maintenance activities at the splice vault locations would only occur at very infrequent intervals (approximately once every three years). Therefore, any impacts to emergency traffic flow that could occur as a result of operation and maintenance of the Proposed Project would be less than significant.

### 4.7.4.9 <u>Question 7h - Expose people or structures to a significant risk of loss, injury, or</u> <u>death involving wildland fires, including where wildlands are adjacent to</u> <u>urbanized areas or where residences are intermixed with wildlands?</u>

### **Construction – Less than Significant Impact**

As previously described in Section 4.7.3.4, portions of the Proposed Project alignment are located within or adjacent to undeveloped land with a threat of wildland fires. Fire hazard designations are based in part on extreme weather conditions (which do not occur all the time) and the status of the fire threat would vary based on the local, site specific conditions. Therefore, even though the Proposed Project is partially located within the geographic boundaries of areas

designated as fire threat areas, the actual fire threat does not exist if the required local atmospheric conditions are not present.

In dry conditions, construction activities do have the potential to start a fire due to the increased presence of vehicles, equipment, and human activity in areas of high fire risk. In particular, heat or sparks from construction vehicles or equipment have the potential to ignite dry vegetation. Construction of the Proposed Project, however, would not expose people or structures to significant risk of loss, injury or death involving wildland fires with implementation of SDG&E's comprehensive construction fire prevention program. Consistent with current SDG&E standard practices, SDG&E would implement fire prevention and protection BMPs, which typically include requirements for carrying emergency fire suppression equipment, conducting "tailgate meetings" that cover fire safety discussions, restrictions on smoking and idling vehicles, and construction restrictions during red flag warnings. As part of the Proposed Project, SDG&E would also implement a project-specific fire prevention plan to assist in safe practices to prevent fires with the Proposed Project area. The project-specific fire prevention plan would include procedures and tools that are designed to minimize the risk of starting fires during construction and increase the ability to suppress a fire in the unlikely event that one is ignited. The project specific fire plan includes (but is not limited to) the following procedures:

- Minimum requirements for firefighting equipment (including size and response time requirements),
- Work limitations for "high" to "extreme" fire danger days, and
- Assignment of specific "Fire Patrol" to perform monitoring and first response onsite.

During construction activities within the Fire Threat Zone, workers would follow the *SDG&E Fire Prevention Plan, Electric Standard Practice 113.1*, and the project-specific fire prevention plan, to ensure that the risk of a fire event during construction of the Proposed Project is minimized. The relevant portions of these documents are incorporated into the design of the Proposed Project, and would be used to ensure that potential impacts relating to wildland fires remain less than significant.

### **Operation & Maintenance – No Impact**

Operation and maintenance of the Proposed Project would not differ substantially from that of the existing facilities, except that there would be a reduction in fire hazard from transmission and power lines due to the old facilities being replaced by new facilities designed to current standards and the replacement of wood structures with steel structures. The Proposed Project would involve the removal of many wood poles and is therefore consistent with SDG&E's long-term plan to improve service reliability in fire-prone areas through fire hardening or other enhancements. The new steel pole structures and new wire would improve system reliability during extreme weather conditions, thereby reducing the potential wildland fire risk compared to existing conditions. Thus, the Proposed Project would not result in any adverse impacts in this regard.

In addition, operation and maintenance of the Proposed Project would not require any additional workers compared to current operation and maintenance conditions. Therefore, there would be

no increase in the number of people exposed to potential wildland fires within the Proposed Project vicinity.

### 4.7.5 **Project Design Features and Ordinary Construction/Operating Restrictions**

### 4.7.5.1 <u>Hazardous Materials</u>

Potential impacts relating to the handling and use of hazardous materials are addressed through compliance with numerous state and federal regulations, including, but not limited to:

- Federal OSHA regulations for worker safety in hazardous material remediation and hazardous waste operations (29 CFR Section 1910.120);
- Federal OSHA regulations hazard communication for workers (29 CFR Section 1910.1200);
- Federal OSHA regulations for toxic air contaminants for workers (29 CFR Section 1910.1000);
- CalOSHA regulations for worker safety in hazardous material remediation and hazardous waste operations (8 CCR 5192);
- CalOSHA regulations for hazard communication for workers (8 CCR 5194); and
- DTSC regulations implementing RCRA and the California HWCL (22 CCR Division 4.5).

In addition to compliance with the above listed regulations, SDG&E and all contractors involved in the construction of the Proposed Project would implement standard operational procedures to ensure that potential impacts resulting from hazardous material transport, use, storage and disposal remain less than significant. Typical BMPs could include, but would not be limited to, construction practices such as the use of absorbent pads for spill containment, specified locations for construction vehicle refueling, and a daily vehicle inspection schedule designed to identify leaking fuels and/or oils as early as possible.

### 4.7.5.2 Fire Threat and Hazards

Potential impacts relating to wildland fires during construction of the Proposed Project would be addressed through implementation of a project specific fire plan as described in Section 4.7.3.1 and Section 3.8.

### 4.7.6 Applicant Proposed Measures

The Proposed Project would have no potentially significant impacts relating to hazards or hazardous materials; therefore, no APMs are proposed.

### 4.7.7 Detailed Discussion of Significant Impacts

Based on the preceding analysis, no significant impacts relating to hazards or hazardous materials are anticipated from the Proposed Project.

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### 4.8 HYDROLOGY AND WATER QUALITY

Would the project:		Potentially Significant Impact	Potentially Significant Unless APMs Incorporated	Less than Significant Impact	No Impact
a.	Violate any other water quality standards or waste discharge requirements?				
b.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				Ŋ
с.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on-or off-site?			Ŋ	
d.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or off- site?			Ŋ	
e.	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?			Ŋ	
f.	Otherwise substantially degrade water quality?			V	
g.	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				V
h.	Place within a 100-year flood hazard area, structures that would impede or redirect flood flows?				
i.	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				
j.	Expose people or structures to inundation by seiche, tsunami or mud flow?			Ø	

### 4.8.1 Introduction

This section of the PEA presents information about surface water and groundwater and an analysis of potential impacts to hydrology and water quality from construction, operation, and

maintenance of the Proposed Project. The Proposed Project would result in less than significant impacts to hydrology and water quality with implementation of the Proposed Project's SWPPP, which is required by law, as well as implementation of SDG&E's *BMP Manual and SDG&E Subregional NCCP*.

### 4.8.2 Methodology

The hydrology and water quality in the Proposed Project area were evaluated by reviewing aerial photographs, FEMA maps for flood zones, *San Diego County Multi-Jurisdiction Hazard Plan* maps, and City and County General Plans. The San Diego RWQCB *Water Quality Control Plan for the San Diego Basin (9)* was reviewed to ensure compliance with state and local regulations. Information on groundwater location and quality within the Proposed Project area was obtained from Department of Water Resources *Bulletin No. 106-2*. The California 2010 Integrated Report (303(d) List) for the San Diego Region (9), and the Los Peñasquitos Lagoon Total Maximum Daily Load (TMDL) – Watershed Phase I Sediment Source Identification Study prepared for the City of San Diego were reviewed for information on impaired water bodies and pollution sources. Wetland resources were identified during wetland delineation field studies conducted in Appendix 4.4-A).

### 4.8.3 Existing Conditions

In California, the regulation, protection and administration of water quality are carried out by the SWRCB and nine California RWQCBs. The Proposed Project is located within the San Diego Region governed by the San Diego RWQCB. The San Diego RWQCB, under the SWRCB, implements policies and programs that protect the quality of the regional water bodies. These programs include preserving the existing water quality, enhancing water quality, and protecting the beneficial uses of regional water bodies, as defined in the *Water Quality Control Plan for the San Diego Basin (9)*.

The San Diego Region includes most of San Diego County, parts of southwestern Riverside County and southwestern Orange County and is divided into 11 major hydrologic units. The Proposed Project is located in the Coastal Plain primarily within the Peñasquitos Hydrologic Unit (HU). The Peñasquitos HU is approximately 170 square miles extending from Poway west to La Jolla and is drained by several creeks. The portion of the Proposed Project area that occurs in the Peñasquitos HU drains to Peñasquitos Creek which is tributary to the Los Peñasquitos Lagoon. Limited portions of the alignment in Carmel Valley Road lie outside of the Peñasquitos HU within the San Dieguito HU that drains to San Dieguito River and Lagoon.

The Proposed Project is mostly within or alongside developed residential areas for approximately two-thirds of its length west from the Sycamore Substation through Carmel Valley Road where the drainages are largely modified and runoff is captured by storm water conveyance facilities. The alignment spans several natural drainage features between Carmel Valley Road and Peñasquitos Substation where the landscape has more open space. The elevation range along the alignment ranges from approximately 100 to 900 feet above mean sea level.

The drainages in the Proposed Project area are fed by direct precipitation, stormwater runoff, groundwater percolation, and anthropogenic and other dry season flows. The stream flow in the area of the Proposed Project is mostly ephemeral where the streams tend to become active after

rainfall. Weather in the Proposed Project area is characterized by mild, wet winters and mild, dry summers. The topography of the Proposed Project area consists of relatively flat or gently sloping ancient marine terraces that have been incised by canyons and valleys. Topography can be relatively steep in valleys and at the incised edges of the marine terraces. The existing transmission line structures are placed on terraces, ridgelines or hilltops such that the drainages are spanned. Some existing access roads may cross drainages over bridges or culverted crossings.

The groundwater within the Peñasquitos and San Dieguito HUs in the vicinity of the Proposed Project site is generally characterized by high dissolved solids and is rated as marginal to inferior for domestic and irrigation purposes.

### 4.8.3.1 <u>Regulatory Setting</u>

Based on a review of aerial imagery and the results of the Jurisdictional Waters and Wetlands Delineation Report prepared for the Proposed Project, structures are located on tops of terraces, hilltops and ridgelines and would not be within drainages that are subject to state or federal jurisdiction. Similarly, existing access roads follow mostly along the tops of terraces or ridgelines. To the extent that existing access roads or new spur roads cross drainages that require work within jurisdictional limits, then those areas would be assessed and appropriate state and federal permits would be obtained.

The following sections describe applicable federal, state, and local water quality requirements.

## Federal

### Clean Water Act

The CWA (33 USC Section 1251 *et seq.*), formerly the Federal Water Pollution Control Act of 1972, was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and certain non-point sources discharges into surface water. Those discharges are regulated by the NPDES permit process (CWA Section 402). The Proposed Project is under the jurisdiction of the San Diego RWQCB.

### Section 401 of the Clean Water Act

Section 401 of the CWA requires that any applicant for a federal permit for an activity that may result in a discharge of pollutants into waters of the United States must obtain a certification that the activity complies with all applicable water quality standards, limitations, and restrictions. A federal agency cannot issue a license or permit for this activity without a Section 401 certification. For the Proposed Project area, the San Diego RWQCB issues Section 401 certifications. Section 4.4, Biological Resources, discusses specific impacts to jurisdictional waters of the United States. In addition, a Jurisdictional Waters and Wetlands Delineation Report was prepared for the Proposed Project and has been included in Appendix 4.4-A.

### Section 404 of the Clean Water Act

Under Section 404 of the CWA, USACE regulates the discharge of dredged and/or fill material into waters of the United States. Waters of the United States include navigable waterways and wetlands adjacent to navigable waterways, and non-navigable waterways and wetlands adjacent to non-navigable waters that are contiguous with navigable waterways. The term "waters of the United States" is defined by 33 CFR Part 328 and currently includes (1) all navigable waters (including all waters subject to the ebb and flow of the tide), (2) all interstate waters and wetlands, (3) all other waters (e.g., lakes, rivers, intermittent streams) that could affect interstate or foreign commerce, (4) all impoundments of waters mentioned above, (5) all tributaries to waters mentioned above. Refer to the Jurisdictional Waters and Wetlands Delineation Report in Appendix 4.4-A for a complete description of the USACE jurisdictional limits.

### Nationwide Permits

Nationwide Permits are general Section 404 permits issued by USACE for categories of activities that have minimal impact on aquatic resources and meet certain conditions. Nationwide Permit 12, Utility Line Activities, authorizes activities required for the construction, maintenance, repair and removal of utility lines and associated facilities in waters of the United States, provided the activities do not result in the loss of greater than one-half acre of waters of the United States. Nationwide Permit 12 requires a preconstruction notification to the USACE district engineer before beginning the activity if the proposed activity results in discharges that result in the loss of greater than one-tenth acre of waters of the United States. If any activity associated with the Proposed Project affects waters of the United States, the activity would be carried out under Nationwide Permit 12 because the discharges from the Proposed Project would not result in the loss of greater than one-half acre of waters of the United States. The Jurisdictional Waters and Wetlands Delineation Report (Appendix 4.4-A) identifies USACE jurisdictional areas that occur within the Proposed Project area.

### National Flood Insurance Program

FEMA is responsible for determining flood elevations and floodplain boundaries based on USACE studies. FEMA is also responsible for distributing the Flood Insurance Rate Maps (FIRM) used in the National Flood Insurance Program (NFIP). These maps identify the locations of special flood hazard areas, including the 100-year floodplain. FEMA allows non-residential development in floodplains, but construction activities are restricted within flood hazard areas depending on the potential for flooding within each area. Federal regulations governing development in a floodplain are set forth in Title 44, Part 60 of the CFR and enable FEMA to require municipalities that participate in the NFIP to adopt certain flood hazard reduction standards for construction and development in 100-year floodplains.

### State

### Streambed Alteration Agreements

California Fish and Game Code Sections 1600–1616 require any person, state or local government agency, or public utility to notify the CDFW before beginning any activity that will

substantially modify a river, stream or lake. Notification to CDFW through the Section 1602 Streambed Alteration Agreement process is required for a project that will:

- Substantially divert or obstruct the natural flow of any river stream or lake;
- Substantially change or use any material from the bed, channel, or bank of, any river, stream or lake; or
- Deposit or dispose of debris, waste, or other material containing crumbled, flake, or ground pavement where it may pass into any river, stream or lake.

The Jurisdictional Waters and Wetlands Delineation Report (Appendix 4.4-A) identifies CDFW jurisdictional areas that occur within the Proposed Project area. If any activity associated with the Proposed Project could substantially affect CDFW jurisdiction as described above, a Streambed Alteration Agreement notification will be submitted.

### California Porter Cologne Water Quality Control Act

The Porter Cologne Water Quality Control Act of 1967, Water Code Section 13000 et seq., requires the SWRCB and the nine RWQCBs to adopt water quality criteria to protect state waters. These criteria include the identification of beneficial uses, narrative and numerical water quality standards, and implementation procedures. The criteria for the Proposed Project area are contained in the *Water Quality Control Plan for the San Diego Basin (9)*. Applicable constraints in the water quality control plans relate primarily to the avoidance of altering the sediment discharge rate of surface waters, and the avoidance of introducing toxic pollutants to the water resource. A primary focus of water quality control plans is to protect designated beneficial uses of waters, which range from drinking water quality to recreation and wildlife habitat. In addition, any party proposing to discharge waste that could affect the quality of the waters of the state must make a Report of the Waste Discharge (RoWD) to the RWQCB or SWRCB as appropriate, in compliance with Porter-Cologne.

The San Diego RWQCB has the authority to waive the requirements that a person file a RoWD and/or be issued WDRs prior to initiating a discharge to surface waters not subject to federal NPDES regulations. Specifically, Section 13269 of the Porter-Cologne Water Quality Control Act (Water Code) gives the San Diego RWQCB the authority to waive the requirements of Water Code Sections 13260(a) and (c), 13263(a), and 13264(a) for specific discharges or specific types of discharge, provided the waiver is consistent with the *Water Quality Control Plan for the San Diego Basin (9)* and is in the public interest. A waiver is available for a discharge if it can comply with the conditions of the waiver. Discharges that comply with the conditions of a waiver are expected to pose a low threat to the quality of waters of the state.

### *RWQCB Conditional Waiver No.* 2 – "Low Threat" Discharges to Land

RWQCB Conditional Waiver No. 2 is for "low threat" discharges to land, which are contained on-site and allowed to percolate to groundwater. "Low threat" discharges include liquid wastes containing pollutant concentrations that are not expected to adversely impact the quality of waters of the state under ambient conditions. "Low threat" discharges may include potable water or uncontaminated groundwater. Potable water and uncontaminated groundwater are not considered waste when initially discharged. However, when it comes into contact with pollutants and transports those pollutants in surface runoff or leaches those pollutants into the soil and groundwater, it becomes a waste. "Low threat" discharges to land are not expected to contain significant concentrations of pollutants that can adversely affect the quality of underlying groundwater.

Discharges from low-volume and short-term construction dewatering operations to land are one type of discharge that may be eligible for Conditional Waiver No. 2.

### National Pollutant Discharge Elimination System (NPDES) – Construction General Permit

The NPDES permit program was authorized by the CWA and is administered in California by the SWRCB through the nine RWQCBs. The purpose of NPDES permit program is to control the discharge of pollutants from point sources into waters of the United States. The SWRCB has issued a General Permit for Storm Water Discharges Associated with Construction and Land Disturbance (Construction General Permit, Order No. 2009-0009) under the NPDES permit program. The Construction General Permit applies to construction activities in California that disturb one acre or greater of soil, or less than one acre but part of a larger common plan of development or sale. To obtain coverage under the Construction General Permit, the project applicant must submit Permit Registration Documents, including a Notice of Intent, to the SWRCB and develop a SWPPP that complies with the Construction General Permit requirements. The project applicant must also receive a SWRCB-issued Waste Discharger Identification number before starting construction activities. The project applicant must implement the SWPPP during construction, including requirements for inspections and monitoring, BMPs, and must revise the SWPPP and implement revisions as needed to protect storm water quality.

The SWPPP describes:

- The project location, site features, area of disturbance, dates of construction, and the identification of materials and activities that may result in pollutant discharges;
- BMPs to implement during construction. The BMPs are selected to control erosion, discharge of sediments, and other potential impacts associated with construction activities;
- An inspection and maintenance program for BMPs; and
- A sampling and analysis plan for monitoring pollutant discharges to water bodies, if required.

The project applicant must submit a Notice of Termination (NOT) to the SWRCB after completing a project subject to the Construction General Permit in order to be relieved of the permit requirements. Final soil stabilization throughout the project area must be achieved before the SWRCB will approve the NOT.

### Water Quality Control Plan for the San Diego Basin (9)

The Proposed Project is within the San Diego Basin, where the San Diego RWQCB regulates water quality on behalf of the SWRCB. The San Diego RWQCB implements policies and programs that protect regional water quality, including preserving existing water quality, enhancing water quality, and protecting the beneficial uses of regional water.

The Water Quality Control Plan for the San Diego Basin (9) (Basin Plan) designates beneficial uses for surface and groundwater and sets narrative and numerical objectives for protection of the beneficial uses. The Basin Plan was prepared in accordance with the criteria in Porter-Cologne and other pertinent state and federal rules and regulations. Beneficial use designations in the Proposed Project area include: Municipal and Domestic Supply (MUN), Agricultural Supply (AGR), Industrial Service Supply (IND), Contact Water Recreation (REC-1), Non-contact Water Recreation (REC-2), Warm Freshwater Habitat (WARM), and Wildlife Habitat (WILD).

The Basin Plan includes a general antidegradation water quality objective to maintain water quality that is better than stated objectives. The Basin Plan has specific inland water quality objectives for water temperature, agricultural supply beneficial use, ammonia, bacteria, biostimulatory substances (e.g., nitrogen and phosphorus), boron, chlorides, color, dissolved oxygen, floating material, fluoride, pH, inorganic chemicals, iron, manganese, methylene blue active substances (e.g. surfactants), nitrate, oil and grease, organic chemicals, sodium, pesticides, phenolic compounds, radioactivity, drinking water, sediment, suspended solids, sulfate, taste and odor, total dissolved solids, toxicity, toxic pollutants, trihalomethanes, and turbidity. There are also specific groundwater objectives listed by groundwater basin.

Wildlife habitat, municipal, industrial, and agricultural supplies, and recreation are among the beneficial uses that the objectives seek to protect. The quality of surface water is affected by stormwater runoff and discharges from industrial, commercial, agricultural, and residential activities in the region. The San Diego RWQCB uses permits and other programs to regulate and reduce pollution of surface waters.

### Local

### City of San Diego Municipal Codes for Stormwater Management and Discharge Control and Storm Water Runoff and Drainage Regulations

The City of San Diego Municipal Code contains all ordinances for the City of San Diego. The *Stormwater Management and Discharge Control Ordinance* is found in Division 3 of Article 3 of Chapter 4 and was originally adopted in September 1993 with amendments in 2001 and 2008. The stated intent of the ordinance is to protect and enhance the water quality of watercourses, water bodies, and wetlands in a manner pursuant to and consistent with the Federal Water Pollution Control Act [CWA, 33 U.S.C. section 1251 et seq.] and NPDES Permit No. CA0108758, as amended.

The ordinance contains discharge prohibitions and exemptions from those provisions. The ordinance sets out requirements to comply with the ordinance, including BMPs, plan and permit compliance requirements, and responsibilities for the protection of storm water conveyance systems. The ordinance defines the requirements that are legally enforceable by the City.

Division 2 of Article 2 of Chapter 14, *Storm Water Runoff and Drainage Regulations*, states that all storm water runoff control, drainage, and flood control facilities shall be constructed in accordance with standards established in the *Land Development Manual*, and shall comply with Municipal Code Chapter 4, Article 3, Division 3 (*Stormwater Management and Discharge Control*). The following is required by the regulation:
All development shall be conducted to prevent erosion and stop sediment and pollutants from leaving the property to the maximum extent practicable. The property owner is responsible to implement and maintain temporary and permanent erosion, sedimentation, and water pollution control measures to the satisfaction of the City Manager, whether or not such measures are a part of approved plans. The property owner shall install, monitor, maintain, and revise these measures, as appropriate, to ensure their effectiveness.

### City of San Diego Land Development Manual

The *Land Development Manual* provides information to assist in the processing and review of applications. Appendix O of the *Land Development Manual* includes the storm water standards for the City of San Diego. The storm water standards provide information to applicants that are processed through the City's Development Services Department. It provides guidance on the selection, design, and incorporation of BMPs into project design.

### City of San Diego General Plan

The *City of San Diego General Plan* provides direction for future growth within the city limits, and provides policies related to various elements including land use, urban design, public facilities, and conservation.

The City of San Diego General Plan contains the following relevant policies:

**CE-B.4.** Limit and control runoff, sedimentation, and erosion both during and after construction activity.

**CE-D.2.** Protect drinking water resources by implementing guidelines for future development that may affect water supply watersheds, reservoirs and groundwater aquifers. The guidelines should address site design, BMPs and storm water treatment measures.

a) Collaborate with other jurisdictions to reduce the potential for polluted runoff to water supply reservoirs.

**CE-E.7.** Manage floodplains to address their multi-purpose use, including natural drainage, habitat preservation, and open space and passive recreation, while also protecting public health and safety.

City of Poway Stormwater Management and Discharge Control, Excavation and Grading, and Standard Urban Stormwater Mitigation Plan Ordinances

Ordinances related to urban runoff include the Stormwater Management and Discharge Control Ordinance, the Excavation and Grading Ordinance, and the Standard Urban Stormwater Mitigation Plan Ordinance. The ordinances contain specific enforcement provisions or are enforceable under generally applicable enforcement provisions. The Stormwater Management and Discharge Control Ordinance is the principal City ordinance addressing urban runoff. It contains discharge prohibitions and BMP requirements. This ordinance is regulatory, and applies to all development projects. The Excavation and Grading Ordinance includes provisions to, among other things, establish a set of standards regulating the design and construction of building sites by grading; protect adjacent properties from damage caused by blockage, diversion, or channeling of natural runoff waters; and to provide for erosion control and proper drainage. Objectives of the Standard Urban Stormwater Mitigation Plan Ordinance include ensuring that dischargers do not cause or contribute to a violation of water quality standards; prohibiting non-storm water discharges in urban runoff; and reducing the discharge of pollutants from urban runoff conveyance systems to the maximum extent practicable. The regulations apply to the development plan approval process for discretionary development applications.

### City of Poway Jurisdictional Urban Runoff Management Program

In 2002, the City of Poway adopted a Jurisdictional Urban Runoff Management Program (JURMP) as required by San Diego Regional Water Quality Control Board Order No. 2001- 01. The purpose of the JURMP is to present a strategy to reduce the discharge of pollutants from the municipal separate storm sewer system (MS4) to the maximum extent practicable. This involves improving existing programs and developing new programs intended to minimize or eliminate the effects of urban runoff from the City on receiving water bodies. The goal is to improve the quality of the discharge from the MS4 which will have beneficial effects on the local receiving water bodies. The JURMP includes management measures for a variety of different sectors and activity types such as municipal, industrial, commercial, construction, and significant development and re-development activities.

## San Diego County Multi-Jurisdiction Hazard Mitigation Plan

The *San Diego County* MJHMP is a countywide plan that identifies risks and ways to minimize damage by natural and manmade disasters, consistent with the Federal Disaster Mitigation Act of 2000. The Disaster Mitigation Act establishes a pre-disaster hazard mitigation program and new requirements for the national post-disaster Hazard Mitigation Grant Program. Section 322 of Disaster Mitigation Act of 2000 specifically addresses mitigation planning at the state and local levels.

The MJHMP is intended to serve many purposes; including helping County residents better understand the natural and manmade hazards that threaten public health, safety, and welfare; economic vitality. The Plan also highlights the operational capability of important institutions. The MJHMP includes relevant hazard profiles for tsunamis, dam failure, flooding, and raininduced landslides.

## 4.8.3.2 <u>Hydrology and Water Quality Setting</u>

## Surface Water and Groundwater Resources

San Diego County's watersheds are characterized by lagoons, lakes, reservoirs, rivers, and creeks. These water bodies capture the region's surface water runoff and become a blend of natural runoff and imported water. In addition to supporting natural habitat and supplying residents with potable water, these water bodies supply water for fire suppression and serve as popular recreation areas. Watersheds support lakes and reservoirs, which offer a variety of recreational activities, including fishing, boating, sailing, bike and horseback riding, and picnicking.

Los Peñasquitos Creek, Deer Creek, and McGonigle Canyon Creek are the primary east-west drainage channels that pass within the Proposed Project area. McGonigle Canyon and Deer

Canyon Creeks merge downstream of the Proposed Project area and form Carmel Creek. Based on a review of aerial imagery and the Jurisdictional Waters and Wetlands Delineation Report, USACE, RWQCB, and CDFW jurisdictional areas can be found within valleys that are spanned by the proposed transmission lines. Within the 500-foot wide survey area, the Jurisdictional Waters and Wetlands Delineation Report for the Proposed Project identified 9.21 acres of USACE jurisdictional waters, of which 5.15 acres was wetland; 9.34 acres of RWQCB jurisdictional waters, of which 5.15 acres was wetland; and 14.92 acres of CDFW jurisdictional waters, of which 2.88 acres was unvegetated streambed and 12.04 acres was vegetated with riparian species (see Appendix 4.4-A).

CWA Section 303(d) requires states to develop a list of water bodies with impaired water quality. The waters on the list are those that do not meet water quality standards even after known point sources of pollution have installed the minimum required levels of pollution control technology. A 12-mile segment of Los Peñasquitos Creek through the Proposed Project area is on the State's Section 303(d) list of impaired waters for Enterococcus, Fecal Coliform, Selenium, Total Dissolved Solids, Total Nitrogen, and Toxicity (see Figure 4.8-1, Watershed and Impaired Waters Map). The sources for these pollutants are listed as unknown. Section 303(d) of the FCAA requires states to develop TMDLs for impaired water bodies. TMDLs for Los Peñasquitos Creek are expected by 2021. No other water bodies within the Proposed Project area are listed as impaired.

Alluvial and sedimentary aquifers are the primary source of groundwater in the Proposed Project area. These aquifers are usually found in river and stream valleys, near the coast line, around lagoons and in the intermountain valleys. Groundwater within the Proposed Project area generally occurs at less than 50 feet and wells are typically less than 400 feet deep. Most structures that would be installed for the Proposed Project would be on topographical high points (terraces and ridges) where the depth to ground water would be greater than 50 feet.

### Watersheds

The majority of the Proposed Project is located within the Los Peñasquitos Watershed and is drained by Peñasquitos and Carmel Creeks that flow to the Pacific Ocean through Peñasquitos Lagoon. Only a small portion of the Proposed Project (mainly associated with Segment B - Carmel Valley Road) is within the San Dieguito River watershed (refer to Figure 4.8-1).

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BACK OF FIGURE 4.8-1

### Precipitation

Rainfall across San Diego County is variable, with most rain falling from November to April. Generally, the average rainfall is highest in the mountains and least along the coast and in the desert. Most of the county experiences light rainfall, although some of the central mountain areas receive more than 30 inches per year. The average seasonal precipitation along the coast is 10 inches or less. The annual precipitation in the Los Peñasquitos Watershed HU ranges from approximately 8 inches near the coast to 18 inches inland.

### Floodplains

The Proposed Project spans Los Peñasquitos Creek, Carmel Creek, and one tributary to each of these drainages that are shown to have a one percent chance to annually flood (i.e., within the 100-year flood zone). No structures would be located within the 100-year flood zone. Flood zone information is provided by FEMA on FIRM and is shown for the Proposed Project on Figure 4.8-2, FEMA Flood Zones Map.

### **Dam Failure Inundation Areas**

Dam owners submit inundation maps to the California OES for review and approval in accordance with guidance issued by OES. The OES is responsible for the identification of inundation areas for dam failures in California and provides city and county emergency services coordinators with approved maps of dam failure inundation areas. The Proposed Project is not located within an identified inundation area for dam failure.

### 4.8.4 Potential Impacts

This section describes potential impacts to hydrology and water resources as a result of the Proposed Project. Potential impacts would be less than significant through compliance with regulatory requirements for protection of surface water quality, and implementation of the SWPPP and BMPs, all of which are design features of the Proposed Project.

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BACK OF FIGURE 4.8-2 (SHEET 3 OF 3)

### 4.8.4.1 <u>Significance Criteria</u>

Standards of impact significance were derived from Appendix G of the *CEQA Guidelines*. Under these guidelines, the Proposed Project could have a potentially significant impact to hydrology and water quality if it would:

- a) Violate any water quality standards or waste discharge requirements;
- b) Substantially deplete groundwater supplies or interferes substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);
- c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site;
- d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site;
- e) Create or contribute to runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;
- f) Otherwise substantially degrade water quality;
- g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;
- h) Place structures within a 100-year flood hazard area which would impede or redirect flood flows;
- i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam; or
- j) Expose people or structures to inundation by seiche, tsunami, or mudflow.

## 4.8.4.2 <u>Question 8a - Violate any water quality standards or waste discharge</u> requirements?

### **Construction – Less than Significant Impact**

As detailed below, the Proposed Project would not violate any water quality standards or waste discharge requirements. No new sources of point discharge water pollution would result from the Proposed Project construction.

Los Peñasquitos Creek is listed as a Section 303(d) impaired water body that does not currently meet water quality standards. Thus, any substantial contribution of listed pollutants to Los Peñasquitos Creek would be considered a significant impact.

Construction of the Proposed Project has the potential to affect surface water quality. Construction would use mechanized equipment requiring fuels and lubricants and involve fabrication of structures that require hazardous materials such as coatings, adhesives, and solvents. Construction also generates trash and debris. Saw cutting of pavement for the underground segment along Carmel Valley Road could result in potential pollutant discharge to stormwater conveyance facilities along the road. Construction materials such as concrete and drilling mud could impact water quality if released. Dewatering of trenches along the underground segment could be required if water accumulates during construction. In addition, construction would disturb soil surfaces and would locally modify soil grades. This would create a temporary potential for erosion and sediment transport. To protect water quality and address all these factors, BMPs would be implemented to address any potential impacts created by the Proposed Project.

The Proposed Project would disturb more than one acre and therefore requires coverage under the statewide Construction General Permit. SDG&E would obtain coverage under the Construction General Permit and comply with its relevant requirements, including development and implementation of a SWPPP and BMP plan for water quality protection.

The Linear Underground/Overhead Project (LUP) requirements of the Construction General Permit would apply to the Proposed Project. LUP activities covered under the Construction General Permit include, but are not limited to, those activities necessary for the installation of underground and overhead linear facilities (e.g., conduits, substructures, poles, cables, wires, connectors, switching equipment, regulating equipment, transforming equipment, and associated ancillary facilities). These activities include, but are not limited to, underground utility mark-out, potholing, concrete and asphalt cutting and removal, trenching, excavation, boring and drilling, access roads, pole/tower pads, cable/wire pull stations, substation construction, substructure installation, construction of tower footings and/or foundations, pole and tower installations, welding, concrete and/or pavement repair or replacement, and stockpile borrow locations.

The Construction General Permit requires prevention of unauthorized discharges and implementation of a SWPPP with BMP guidance to prevent discharges from construction activities that would otherwise violate water quality standards. The Construction General Permit further requires inspections, monitoring, and reporting to ensure that BMPs are implemented and effective and modified if needed to ensure protection of water quality. SDG&E would implement BMPs consistent with the Construction General Permit requirements and its *BMP Manual*. Specific requirements for LUPs are provided in the Order and Attachment A of the Construction General Permit (Order No. 2009-0009). The *SDG&E Subregional NCCP* also contains protocols for avoiding and minimizing potential erosion and water quality issues.

Other than the Construction General Permit, no waste discharge requirements apply to construction of the Proposed Project because no discharges other than stormwater are anticipated. Whereas some dewatering may be required from structural foundation excavations or trenches excavated for the underground segment along Carmel Valley Road, this activity would be considered a low threat discharge and eligible for Conditional Waiver No. 2 from the San Diego RWQCB if the water is discharged.

The Proposed Project would not violate any water quality standard or waste discharge requirement because SDG&E will comply with the regulatory requirements for protection of water quality, including implementation of the SWPPP and BMPs in accordance with SDG&E's *BMP Manual* and the *SDG&E Subregional NCCP*. Therefore, potential impacts would be less than significant.

### **Operation & Maintenance – Less than Significant Impact**

SDG&E currently maintains and operates existing electric transmission, power, distribution, and substation facilities throughout the Proposed Project site. SDG&E's existing facilities and operations and maintenance activities are included in the baseline for evaluating the impacts of the Proposed Project. The Proposed Project's transmission and power lines would be installed along an existing transmission and power line corridor, where regular operations and maintenance activities already occur. The new underground 230 kV transmission line proposed within Carmel Valley Road would marginally add to SDG&E's annual inspection requirements. The Proposed Project would include new maintenance pads and spur roads that would require regular maintenance, but these new maintenance pads and spur roads would only marginally increase current requirements.

Throughout the operation and maintenance of the Proposed Project, SDG&E would continue to implement BMPs consistent with its *BMP Manual* and the *SDG&E Subregional NCCP* and any future revisions to those documents. SDG&E already does this under the existing conditions.

At both the Sycamore Canyon and Peñasquitos Substations, one CVT would be installed to be used for synch potential. Hazardous materials are already present at both existing substations, and its presence would be the same after the substations are modified. SDG&E would maintain the current conditions of containing the oils in equipment with secondary containment. SDG&E would also prepare and implement a Spill Prevention, Control, and Countermeasures (SPCC) Plan and follow ordinary operating restrictions to control containment of hazardous materials at substations, as is currently the case. No violation of any water quality standard would be anticipated from use of hazardous materials during operation and maintenance of the Proposed Project.

No waste discharge requirements apply to operation and maintenance of the Proposed Project because no discharges are anticipated to occur. The Proposed Project would not violate any water quality standard or waste discharge requirements during operation and maintenance because SDG&E will comply with the regulatory requirements for protection of water quality, including implementation of the SWPPP and BMPs, and implement BMPs in the *BMP Manual* and *SDG&E Subregional NCCP*. Therefore, potential impacts would be less than significant.

### 4.8.4.3 Question 8b - Substantially deplete groundwater supplies or interferes substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

### **Construction – No Impact**

The estimated water demand from construction of approximately 25 million gallons over 12 months would be minor and short-term, would be met through existing municipal sources, and would not result in new ground water pumping. Surface disturbance would be limited and negligible compared to the affected watershed areas, so there would be no impact on ground water recharge.

Dewatering may be required during construction where localized shallow groundwater is encountered in structure foundation excavations or other project excavations. Dewatering may have localized effects on groundwater levels, but the effects would be isolated to a small area due to the short duration of pumping. Dewatering is not expected to affect area wells, which rely on deeper water-bearing zones. For these reasons, there would be no net deficit in aquifer volume or lowering of the groundwater table and no impact on ground water supplies or recharge. Therefore, no impacts related to groundwater supplies would occur.

### **Operation & Maintenance – No Impact**

SDG&E currently maintains and operates existing electric transmission, power, distribution, and substation facilities throughout the Proposed Project site. SDG&E's existing facilities and operations and maintenance activities are included in the baseline for evaluating the impacts of the Proposed Project. The Proposed Project's transmission and power lines would be installed along an existing transmission and power line corridor, where regular operations and maintenance activities already occur. The new underground 230 kV transmission line proposed within Carmel Valley Road would marginally add to SDG&E's annual inspection requirements but would not be expected to require dewatering. Operations and maintenance activities for the Proposed Project would therefore not materially increase in frequency or intensity compared to baseline conditions. Any future construction activities related to potential maintenance would be evaluated under General Order 131-D and CEQA to assess whether further CPUC approval is required. There would be no net deficit in aquifer volume or lowering of the groundwater table and no impact on ground water supplies or recharge. Therefore, no impacts related to groundwater supplies would occur.

# 4.8.4.4 <u>Question 8c - Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?</u>

### **Construction – Less than Significant Impact**

The underground portion of the Proposed Project would be within Carmel Valley Road and would result in no change to existing drainage patterns. BMPs would be implemented during construction to contain sediment and pollutants from saw cutting/trenching activities, and protect

overall water quality. The Proposed Project would cross two drainages along Carmel Valley Road. The Proposed Project's underground transmission lines would be attached to an existing bridge in one case and would be installed over the top of a box culvert in another, thereby avoiding any work within these drainages.

The above ground portion of the Proposed Project would result in grading that would not substantially alter any existing drainage patterns or alter the course of any stream or river. Most work locations would be accessible with minor grading and smoothing of existing access roads. The Proposed Project would require approximately one new spur road (i.e., road from access roads to structure sites), and installation of approximately 62 new structures that would require grading for new and/or restoration of existing pads to accommodate construction and maintenance work. Work to develop the pole foundations would result in approximately 4,500 cubic yards of excavation and approximately 7.758 acres of grading disturbance. Any excess soil would be spread on site to match existing contours or hauled away. Grading would disturb the soil surface, resulting in a possible change in the infiltration and absorption capacity of the affected areas. Graded areas would be stabilized to promote infiltration and reduce runoff potential. None of the Proposed Project's structures are located in drainages, on flood plains, or at any location that could alter the course of a stream or river or modify flood condition water levels.

SDG&E does not propose any grading in creeks or drainages that could alter the flow. The Construction General Permit would require BMPs to prevent excessive erosion and sediment transport and would also require that disturbed areas be stabilized. The RWQCB would accept the Notice of Termination of the Construction General Permit only after demonstration of stabilization.

Construction of the Proposed Project would not substantially alter existing drainage patterns of the site or area because: (1) the Proposed Project does not include grading in creeks or drainages that would affect flow of water; (2) grading would be designed to return runoff to existing drainage patterns without increasing runoff; and (3) erosion protection and sediment control BMPs would be implemented in compliance with the Construction General Permit, SWPPP, *BMP Manual*, and *SDG&E Subregional NCCP*. Therefore, the impact on existing drainage patterns would be less than significant.

## **Operation & Maintenance – No Impact**

SDG&E currently maintains and operates existing electric transmission, power, distribution and substation facilities throughout the Proposed Project site. SDG&E's existing operations and maintenance activities are the baseline against which the impacts of the Proposed Project are evaluated. The Proposed Project's transmission and power lines would be installed along an existing transmission and power line corridor, where regular operations and maintenance activities already occur. The new underground 230 kV transmission line proposed within Carmel Valley Road would marginally add to SDG&E's annual inspection requirements but would not alter drainage patterns. Operations and maintenance activities for the Proposed Project would therefore not materially increase in frequency or intensity compared to baseline conditions. Any future construction activities related to potential maintenance would be evaluated under General Order 131-D and CEQA to assess whether further CPUC approval is required.

SDG&E would continue to implement BMPs during grading work associated with operations and maintenance, including returning runoff to existing drainage patterns and stabilizing surface disturbances. This would prevent any substantial alteration of the existing drainage pattern of the site in a manner that would result in substantial erosion or siltation on or off-site. For these reasons, there would be no impacts from substantial erosion or siltation off- or on-site due to substantial alteration of existing drainage patterns of the site or area.

### 4.8.4.5 <u>Question 8d - Substantially alter the existing drainage pattern of the site or area,</u> including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?

### **Construction – Less than Significant Impact**

See discussion under Question 8c above.

### **Operation & Maintenance – No Impact**

See discussion under Question 8c above.

### 4.8.4.6 <u>Question 8e - Create or contribute to runoff water which would exceed the</u> capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

### **Construction – Less than Significant Impact**

Surface conditions would be restored as part of construction for the underground portion of the transmission line in Carmel Valley Road so there would be no change to infiltration or runoff. Where Proposed Project facilities require alteration of surface conditions (e.g., grading), graded areas would be stabilized to promote infiltration and reduce runoff potential. With the grading that would occur and implementation of BMPs including surface stabilization, material/sediment increase in runoff from the Proposed Project's footprint is not anticipated. The Proposed Project would not adversely impact the capacity of existing or planned storm water drainage systems because no substantive increase in runoff is expected, and grading would be designed to return runoff to existing drainages.

SDG&E would comply with the Construction General Permit and would develop and implement a SWPPP outlining BMPs for water quality protection. The Construction General Permit requires prevention of unauthorized discharges and implementation of BMPs needed to prevent discharges of polluted runoff to the maximum extent practicable. The Construction General Permit also requires inspections, monitoring, and reporting to ensure that polluted runoff is not discharging from the construction site.

SDG&E would implement BMPs in accordance with the Construction General Permit and its *BMP Manual*. Construction of the Proposed Project would not be a substantial source of polluted runoff considering the regulatory requirements for protection of water quality, including implementation of the SWPPP and BMPs. Therefore, potential impacts would be less than significant.

### **Operation & Maintenance – No Impact**

SDG&E currently maintains and operates existing electric transmission, power, distribution and substation facilities throughout the Proposed Project site. SDG&E's existing operations and maintenance activities are the baseline against which the impacts of the Proposed Project are evaluated. The Proposed Project's transmission and power lines would be installed along an existing transmission and power line corridor, so regular operations and maintenance activities already occur. The foundations required for the Proposed Project's new structures would not constitute substantial areas of new impermeable surfaces. No material increase in runoff from the Proposed Project's footprint is anticipated. Surface conditions would be restored as part of construction for the underground portion of the transmission line in Carmel Valley Road so there would be no change to infiltration or runoff. Operations and maintenance activities for the Proposed Project would therefore not materially increase in frequency or intensity compared to baseline conditions. Any future maintenance-related construction projects would be evaluated under General Order 131-D and CEQA for purposes of assessing whether further CPUC approval is required. SDG&E would continue to implement BMPs during maintenance work. Therefore, operations and maintenance of the Proposed Project would not affect drainage capacity of existing or planned stormwater drainage systems or cause a substantial additional source of polluted runoff.

### 4.8.4.7 <u>Question 8f - Otherwise substantially degrades water quality?</u>

### **Construction – Less than Significant Impact**

Construction of the Proposed Project would comply with the Construction General Permit, which includes implementation of a SWPPP with BMPs to prevent degradation of water quality from storm water runoff and other permitted discharges. No other discharges to surface or ground water are anticipated during construction. Implementation of project design features and ordinary construction restrictions, including BMPs, would ensure that potential impacts to water quality remain less than significant.

### **Operation & Maintenance – No Impact**

SDG&E currently maintains and operates existing electric transmission, power, distribution and substation facilities throughout the Proposed Project site. SDG&E's existing operations and maintenance activities are the baseline against which the impacts of the Proposed Project are evaluated. The Proposed Project's transmission and power lines would be installed along an existing transmission and power line corridor, where regular operations and maintenance activities already occur. The new underground 230 kV lines proposed within Carmel Valley Road would marginally add to SDG&E's annual inspection requirements but the inspection and maintenance activities would not be expected to lead to a degradation of water quality. Operations and maintenance activities for the Proposed Project would therefore not materially increase in frequency or intensity compared to baseline conditions. Any future construction activities related to potential maintenance would be evaluated under General Order 131-D and CEQA to assess whether further CPUC approval is required. SDG&E would continue to implement BMPs during maintenance work. Therefore, operations and maintenance of the Proposed Project would not otherwise substantially degrade water quality.

# 4.8.4.8 <u>Question 8g - Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary, Flood Insurance Rate Map or other flood hazard delineation map?</u>

### **Construction, Operation and Maintenance – No Impact**

The Proposed Project does not involve the construction of housing. Therefore, no impacts related to placement of housing in a 100-year floodplain would occur.

## 4.8.4.9 <u>Question 8h – Place structures within a 100-year flood hazard area which would impede or redirect flood flows?</u>

### **Construction, Operation and Maintenance – No Impact**

The Proposed Project would not place structures within in an area with the potential for 100-year floods. No new structures would be constructed that would impede or redirect flood flow within a 100-year flood hazard area. As a result, the Proposed Project would not impact flood flows. Therefore, no impacts to 100-year floodplains would occur.

# 4.8.4.10 <u>Question 8i - Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?</u>

### **Construction, Operation and Maintenance – No Impact**

The Proposed Project is not located within an identified inundation area for dam failure. No levees are located within the Proposed Project area. Therefore, impacts related to loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or a dam, are not anticipated.

### 4.8.4.11 <u>Question 8j – Expose people or structures to inundation by seiche, tsunami, or</u> <u>mudflow?</u>

### **Construction – Less than Significant Impact**

The MJHMP identifies areas that would be subject to tsunami, coastal erosion, and landslide. According to the MJHMP, wave heights and run-up elevations from tsunami along the San Diego Coast have historically fallen within the normal range of the tides with the highest risk zones located along the immediate coast and lagoons west of I-5. The Proposed Project is approximately 2.5 miles inland of the coast and 1.6 miles east of the furthest point that a tsunami is projected to run-up through the Los Peñasquitos Lagoon. There are no dams or large bodies of water nearby or upstream of the Proposed Project area. Therefore, no impacts related to seiche or tsunami would occur.

According to the County of San Diego Guidelines for Determining Significance of Hydrology impacts, mudflows are the most common disaster in San Diego County. They are most commonly associated with steep slopes in mountainous areas underlain by geologic formations that produce sandy soils or weathered gabbroic soils that have large amounts of clay. Mudflows can be exacerbated by activities that result in large areas of vegetation removal such as fires and can also be caused by the incorrect diversion of runoff concentrated from developed areas. Some of the slopes adjacent to Los Peñasquitos Creek and other locations are shown in the MJHMP to be prone to landslides. BMPs would include measures to minimize disturbance to soils and stabilizing of disturbed areas, which would minimize the likelihood of construction contributing to the potential for mudflows. With the implementation of BMPs, the risk that the Proposed Project would contribute to the occurrence of mudflows or be affected by a mudflow is less than significant.

### **Operation & Maintenance – No Impact**

As noted above, the MJHMP identifies areas that would be subject to tsunamis, coastal erosion, and landslides. The Proposed Project is well inland of the coast and there are no large bodies of water nearby. Therefore, no impacts related to seiche or tsunamis would occur.

Some of the slopes adjacent to Los Peñasquitos Creek and other locations are shown in the MJHMP to be landslide prone. However, aerial photo analysis indicates that Proposed Project structures would be situated on hill tops and ridge lines in these areas rather than on steep slopes, and are therefore not located in areas prone to mudflows. Operation and maintenance of the Proposed Project would not be expected to contribute to the occurrence of mudflows or be affected by a mudflow.

## 4.8.5 Project Design Features and Ordinary Construction/Operating Restrictions

With implementation of the ordinary construction restrictions (as outlined within Section 3.8), potential impacts relating to hydrology and water quality will remain less than significant.

## 4.8.6 Applicant Proposed Measures

The Proposed Project has no potentially significant impacts relating to hydrology and water quality. Therefore, no APMs are proposed.

## 4.8.7 Detailed Discussion of Significant Impacts

Based upon the preceding analysis, no significant impacts relating to hydrology and water quality are anticipated from the Proposed Project.

## 4.8.8 References

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Would the project:		Potentially Significant Impact	Potentially Significant Unless APMs Incorporated	Less than Significant Impact	No Impact
a.	Physically divide an established community?				$\checkmark$
b.	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				
c.	Conflict with any applicable habitat conservation plan or natural community conservation plan?				Ŋ

## 4.9 LAND USE AND PLANNING

### 4.9.1 Introduction

This section of the PEA describes the existing land use and land use and zoning designations within the Proposed Project vicinity and the potential impacts to land use from construction, operation, and maintenance of the Proposed Project.

While the Proposed Project is not subject to local zoning regulations or discretionary land use approval, the Proposed Project is consistent with existing land uses (which include electric power and distribution facilities and substations), designated land uses, as well as general plan and zoning designations. The Proposed Project would be constructed within existing SDG&E ROW, in SDG&E franchise area and within existing substation property boundaries. The Proposed Project would not physically alter or divide an established community. No impacts to land use and planning were identified.

### 4.9.2 Methodology

The land use analysis included a review of various land use plans, policies, and regulations for the City of San Diego, the City of Poway, and MCAS Miramar, and the CCC. The planning and natural resources management documents that were reviewed include the following: *City of San Diego General Plan, City of Poway General Plan, Black Mountain Ranch Subarea Plan, Carmel Valley Community Plan, Carmel Valley Precise Plan – Design Element, Del Mar Mesa Specific Plan, Miramar Ranch North Community Plan, Pacific Highlands Ranch Subarea Plan, Rancho Encantada Precise Plan, Rancho Peñasquitos Community Plan, Sabre Springs Community Plan, Scripps Miramar Ranch Community Plan, Torrey Highlands Subarea Plan, Torrey Hills Community Plan, SDG&E Subregional NCCP, City of San Diego MSCP, City of San Diego MSCP Subarea Plan, MCAS Miramar ALUCP and the MCAS Miramar INRMP. Also, the analysis included a review of other relevant planning documents such as the City of San Diego and City of Poway Zoning maps and ordinances, aerial imagery (including the use of Google Earth), and review of other related information that was available on the Internet.* 

### 4.9.3 Existing Conditions

### 4.9.3.1 <u>Regulatory Setting</u>

### State

### California Public Utilities Commission

Pursuant to Article XII, Section 8, of the California Constitution and the California Public Utilities Code, the CPUC has exclusive jurisdiction in relation to local government to regulate the design, siting, installation, operation, maintenance, and repair of electric facilities. SDG&E must receive a CPCN from the CPUC in order to gain regulatory approval for the Proposed Project.

Other state agencies have concurrent jurisdiction with the CPUC, as further described in the subsections that follow. Although local governments do not have the power to regulate activities related to electric power line and substation facilities, the CPUC encourages, and SDG&E participates in, cooperative discussions with affected local governments to address their concerns where feasible. As part of the environmental review process, SDG&E has considered relevant city and county land use plans and policies, specific plans, community plans, subarea plans, and HCPs adopted by local jurisdictions crossed by the Proposed Project, and prepared this evaluation of the Proposed Project's potential impacts to land use and planning. Further, SDG&E would obtain ministerial permits from local agencies as applicable for the Proposed Project.

## Local

## City of San Diego

The *City of San Diego General Plan* provides guidance for development within the City of San Diego. It is comprised of ten elements and was comprehensively updated by the City Council in 2008. The City Council also certified the General Plan Program Environmental Impact Report and adopted associated amendments to the Land Development Code. The General Plan update did not include land use designation or zoning changes, which is the purview of the City's community plans.

Community plans work together with the General Plan to provide location-based policies and recommendations in the more than 50 community planning areas within the City. Community plans are written to refine the General Plan's citywide policies, designate land uses and housing densities, and include additional site-specific recommendations as needed. The relevant community plans, precise plans, and specific plans for individual community planning areas that the Proposed Project crosses are discussed below. The location of each community planning area that is within the vicinity of the Proposed Project is shown in Figure 4.9-1, Proposed Route Land Use Map.

The *City of San Diego General Plan* contains the following potentially applicable goals and policies:



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**PF-M.4** Cooperatively plan for and design new or expanded public utilities and associated facilities (e.g., telecommunications infrastructure, planned energy generation facilities, gas compressor stations, gas transmission lines, electrical substations and other large scale gas and electrical facilities) to maximize environmental and community benefits.

Use transmission corridors to enhance and complement wildlife movement areas and preserved open space habitat as identified in the City's MSCP.

- a. Provide adequate buffering and maintained landscaping between utility facilities and residential and non-residential uses, including the use of non-building areas and/or rear setbacks.
- b. Maximize land use and community benefit by locating compatible/appropriate uses within utility easements/right-of-ways (e.g., passive parkland, natural open space, wildlife movement, urban gardens, plant nurseries, parking, access roads, and trails). Trails can be allowed in the easement/ right-of-ways, provided proper indemnification, funding and maintenance is set forth in a written agreement between the public utility, the City, and project developer (Public Facilities, Services, and Safety Element, page PF-50).

#### Rancho Encantada Precise Plan

The *Rancho Encantada Precise Plan* (2001) provides guidance for the community of Rancho Encantada and the surrounding area. The goals and policies were officially adopted by the Rancho Encantada Community Planning Group and by the San Diego City Council (City of San Diego, 2001).

The *Rancho Encantada Precise Plan* contains the following potentially applicable goals and policies:

- Retain utilities within the existing SDG&E utility easements.
- Respect the rugged topography of the site by developing on existing ridgelines, minimizing cut and fill, and utilizing contour grading techniques.
- All utilities should be designed to avoid or minimize intrusion into the MHPA.
- Telephone, cable and electrical service lines will be located underground with the exception of existing and future overhead transmission lines that will be located above ground. These utilities will be in compliance with local utility design guideline criteria or as otherwise provided in this Precise Plan.

#### Scripps Miramar Ranch Community Plan

The *Scripps Miramar Ranch Community Plan* (1978) contains specific proposals for future land uses and public improvements within the Scripps Miramar Ranch Community Planning Area. It provides tailored policies and long-range physical development guide for elected officials and citizens engaged in community development. Scripps Miramar Ranch is one of two communities that make up the Scripps Ranch Community. The goals and policies of this

community plan were officially adopted by the Scripps Miramar Ranch Community Planning Group and by the San Diego City Council.

The *Scripps Miramar Ranch Community Plan* contains the following potentially applicable policies and goals:

- Preserve and enhance the valued natural resources of the Scripps Miramar Ranch community: hills, trees, water resources, Miramar Reservoir, Carroll Canyon and subsidiary canyons; maximize public benefit through public ownership and/or access, both visual and physical, to these resources.
- The 200-foot SDG&E easement which traverses the northeastern portion of the Scripps Ranch should serve as an open space connector and passive park. Although there are strict limits on the types of construction and vegetation allowed in the easement, this plan advocates the following treatments:
  - Where the easement traverses natural areas slated for preservation, those areas should remain unchanged.
  - Where grading or roads occur in the easement, the graded area should be revegetated with low-lying groundcover which will not impede access to transmission lines. At the edge of the easement, transitional plantings such as native chaparral species, shrubs and eucalyptus species shall be provided in order to buffer the open space connector from adjacent development while still providing view into the open space.
  - The proposed improved open space shown in the northeastern portion of the Community Plan Area under the easement should be treated in such a manner as to meet SDG&E requirements, and yet still provide a grassy-type area for passive recreation uses.

#### Miramar Ranch North Community Plan

The *Miramar Ranch North Community Plan* (1980) provides guidance for the community of Miramar Ranch North and the surrounding area. The goals and policies were officially adopted by the Miramar Ranch North Community Planning Group and by the San Diego City Council. Miramar Ranch North is the second of two communities that make up the Scripps Ranch Community.

The *Miramar Ranch North Community Plan* contains the following potentially applicable policies and goals:

• Several special open space preserves are designated. The preserves are designed to protect existing high-interest biological species and/or transplanted species. Special care should be taken to preserve not only the natural habitat itself, but the conditions such as drainage and sunlight creating the habitat. No landscaping should be undertaken in special open space preserves. Preservation of the existing conditions is especially important for the riparian area next to I-15.

#### Sabre Springs Community Plan

The *Sabre Springs Community Plan* (1982) provides guidance for the community of Sabre Springs and the surrounding area. The goals, objectives, and policies were officially adopted by the Sabre Springs Community Planning Group and by the San Diego City Council.

The *Sabre Springs Community Plan* contains the following potentially applicable policies and goals:

- Resources Management: Encourage careful management of community environmental resources through preservation of the creeks and a natural open space network, and support of environmentally sensitive development.
- Preserve or mitigate the significant impacts to cultural resources in the planning area.
- Provision of access corridors to the creeks for fauna including the power easement corridor and the neighborhood park in Sabre Springs North and the neighborhood park and an extensive area in open space along Peñasquitos Creek in Sabre Springs South.

#### Rancho Peñasquitos Community Plan

The *Rancho Peñasquitos Community Plan* (1993) provides guidance for the community of Rancho Peñasquitos and the surrounding area. The goals and policies were officially adopted by the Rancho Peñasquitos Community Planning Group and by the San Diego City Council.

The Rancho Peñasquitos Community Plan contains the following relevant policies and goals:

- Protect environmental resources that are typically associated with hillsides, preserve significant public views of and from hillsides, and maintain a clear sense of natural hillside topography throughout the Rancho Peñasquitos Community.
- Black Mountain Special Development Area Black Mountain Transition Zone. Wildlife corridors connecting Black Mountain Park to other open space in the community must be maintained. Wildlife must be able to safely move through a continuous, natural habitat system to ensure their survival.
- Overall Landform. Site planning should maintain the topographic relief of the existing terrain, minimize cut and fill slopes and preserve significant views from and of development areas. The ridge-canyon relationship should be maintained and not obliterated. While hilltops and valleys may be graded to permit development, the sense of distinctive landform should remain. Special care should be taken to preserve the landform of the ridgetop in the Black Mountain area and the Camino Del Sur open space corridor in Peñasquitos Canyon.

#### Torrey Highlands Subarea Plan

The *Torrey Highlands Subarea Plan* (1996) provides guidance for the community of Torrey Highlands and the surrounding area. The goals and policies were officially adopted by the Torrey Highlands Community Planning Group and by the San Diego City Council.

The Torrey Highlands Subarea Plan contains the following relevant policies and goals:

- Preserve biodiversity, significant resources, landforms and habitat.
- Conserve biological resources consistent with the MSCP Preserve through the development of interconnected and viable habitat reserves, habitat restoration and enhancement.
- Provide a critical corridor for the regional MSCP open space system that serves as a wildlife linkage between regional parks and preserves, as well as a multi-resource habitat preservation area.

#### Pacific Highlands Ranch Subarea Plan

The *Pacific Highlands Ranch Subarea Plan* (1998) provides guidance for the community of Pacific Highlands Ranch and the surrounding area. The goals and policies were officially adopted by the Carmel Valley Community Planning Group and by the San Diego City Council.

The *Pacific Highlands Ranch Subarea Plan* contains the following potentially applicable policies and goals:

- Conservation of the MHPA. Plan is the foundation for the overall planning of Pacific Highlands Ranch. The community is characterized by the concentration of residential development in specific areas to preserve valuable open spaces and encourage wildlife movement.
- Provide a series of interconnected and viable habitat reserves that protect and preserve biological resources while providing a linkage between the San Dieguito River Valley, Los Peñasquitos Canyon Preserves and Black Mountain Park.

#### Del Mar Mesa Specific Plan

The *Del Mar Mesa Specific Plan* (2000) provides guidance for the community of Del Mar Mesa and the surrounding area. The goals and policies were officially adopted by the Del Mar Mesa Community Planning Group and by the San Diego City Council.

A potentially applicable policy/goal of the *Del Mar Mesa Specific Plan* is as follows:

• Develop the Community of Del Mar Mesa as a rural community that emphasizes open spaces, dark skies, hiking and equestrian trails and sensitively designed developments which complement the existing topography.

#### Carmel Valley Community Plan

The *Carmel Valley Community Plan* (1975) provides guidance for the community of Carmel Valley and the surrounding area. The goals and policies were officially adopted by the Carmel Valley Community Planning Group and by the San Diego City Council. A potentially applicable goal of the plan is to preserve the natural environment.

#### Torrey Hills Community Plan

The *Torrey Hills Community Plan* (1996) provides guidance for the community of Torrey Hills and the surrounding area. The goals and policies were officially adopted by the Torrey Hills Community Planning Group and by the San Diego City Council.

The *Torrey Hills Community Plan* contains the following potentially applicable policies and goals:

- Encourage more efficient use of land compatible with and sensitive to existing natural ecological, scenic and open space resources through innovative grading techniques and design standards.
- Preserve and, if necessary, enhance or restore open space areas identified within the community.
- Protect open space areas from development pressures through dedication, acquisition or open space easements.

#### City of Poway

The *City of Poway General Plan* (1991) provides a broad framework of policies, objectives, and land use designations to guide the future of development in the City of Poway. The *City of Poway General Plan* is divided into six master elements: Community Development, Public Facilities, Transportation, Resources, Public Safety, and Housing. Some of these master elements are further divided: Community Development includes Land Use and Community Design; Transportation includes Roadways, Public Transit, Bikeways, and Pedestrian Facilities; Resources includes Natural Resources and Prehistoric and Historic Resources; and Public Safety includes Emergency Services and Hazard Management.

The City of Poway General Plan contains the following potentially applicable goals and policies:

- Biological corridors shall be preserved in order to provide linkages for vegetative and wildlife communities between non-connective open space areas.
- Development should not disrupt habitats considered to be sensitive or the habitat of sensitive declining threatened rare or endangered species.
- Land uses should be distributed so as to encourage in fill development within the built up parts of the City protect the integrity of existing land uses and densities and preserve the open space and rural nature of Poway.
- Large contiguous areas of open space shall be encouraged throughout the City and shall not be fenced or otherwise constricted.

#### **Coastal Zone**

The CCA requires all jurisdictions within the Coastal Zone to prepare a LCP. The LCP includes issue identification, a land use plan and implementation ordinances. LCPs are basic planning tools used by local governments to guide development in the coastal zone, in partnership with the CCC. LCPs contain the ground rules for future development and protection of coastal resources

in the 76 coastal cities and counties of California. The LCPs specify appropriate location, type, and scale of new or changed uses of land and water. Each LCP includes a land use plan and measures to implement the plan (such as zoning ordinances). Prepared by local government, these programs govern decisions that determine the short- and long-term conservation and use of coastal resources. While each LCP reflects unique characteristics of individual local coastal communities, regional and statewide interests and concerns must also be addressed in conformity with CCA goals and policies. Following adoption by a city council or county board of supervisors, an LCP is submitted to the Coastal Commission for review for consistency with CCA requirements.

Within the vicinity of the Proposed Project, approximately 1.6 miles of Segment D is located within the Coastal Zone. Within this area where Segment D is within the Coastal Zone, the area is within the Del Mar Mesa Community. The *Del Mar Mesa Specific Plan* states the following in its Coastal Element:

Some areas within the Del Mar Mesa community are located within the Coastal Zone and are subject to the North City LCP, which was adopted by the San Diego City Council and certified by the CCC. These include areas that are designated Estate Residential and Resource Based Open Space within the northwest corner of the Del Mar Mesa and open space areas that are primarily in public ownership in the southern part of the subarea (refer to Figure 4.9-1).

The Del Mar Mesa Specific Plan, in addition to the North City Future Urbanizing Area [NCFUA] Framework Plan, constitutes the land use plan for Del Mar Mesa within the City's LCP. The Del Mar Mesa Specific Plan is intended to implement the Framework Plan and the North City LCP. The Del Mar Mesa Specific Plan and related plan amendments and ordinances necessary to implement the plan require certification by the CCC to become effective within the Coastal Zone areas. The CCC certified the Del Mar Mesa Specific Plan on August 13, 1997. With this certification, the City of San Diego assumed coastal permit authority for all areas located in the Coastal Zone within the Del Mar Mesa community. In general, development in the Coastal Zone requires a coastal development permit, either from the CCC or a local agency that has been delegated authority to issue coastal development permits. Some development activities do not require coastal development permits, either because they are excluded from permit requirements or because the permit requirement is waived. SDG&E anticipates that a coastal development permit could be required to construct a segment of the Proposed Project within the City of San Diego North City LCP. In the event a coastal development permit is required, the City of San Diego would review the activities proposed within the Coastal Zone for compliance with the North City LCP.

#### Habitat Conservation Plans

#### SDG&E Subregional Natural Community Conservation Plan

The Proposed Project falls within the area in which SDG&E's utility operations are governed by SDG&E's *Subregional NCCP*. As a part of the *SDG&E Subregional NCCP*, SDG&E has been issued incidental take permits (Permit PRT-809637) by the USFWS and the CDFW for 110 Covered Species. The *SDG&E Subregional NCCP* includes measures and operational protocols designed to avoid and minimize potential impacts to sensitive species. Refer to Section 4.4, Biological Resources and Section 3.8, Project Design Features and Ordinary

Construction/Operations Restrictions for more information about the SDG&E Subregional NCCP.

The *SDG&E's Subregional NCCP* supersedes any other multiple-species conservation plans or HCPs. The purpose of this provision in the *SDG&E's Subregional NCCP* is to harmonize areas of overlap such that there is no conflict with other plans.

#### City of San Diego Multiple Species Conservation Program

The *MSCP* was developed to preserve a network of habitat and open space, protecting biodiversity and enhancing the region's quality of life. The City of San Diego is one of several jurisdictions participating in the *MSCP*. The *MSCP* covers 85 species and the core biological resource areas are identified within the City's MHPA. Refer to Section 4.4, Biological Resources for more information about the *MSCP*.

#### MCAS Miramar - Integrated Natural Resources Management Plan

The *INRMP* for MCAS Miramar integrates the land use needs of the air station in support of its military mission with the management and conservation of natural resources. The *INRMP* establishes MCAS Miramar's approach and guidelines relative to natural resources to accomplish this end. The *INRMP* does not dictate land use decisions, rather it provides important resource and regulatory information to support sound land use decisions and natural resource management.

The *INRMP* summarizes baseline resource information to ensure compliance with regulatory and planning processes, such as those required by the NEPA, Federal ESA, and CWA. It fulfills other responsibilities with regard to Department of Defense and Marine Corps policies, and legal requirements regarding natural resource planning. The *INRMP* is annually reviewed with the USFWS and CDFW and is updated and approved every five years.

Within the *INRMP*, Chapter 2.0 – MCAS Miramar Land-Use provides guidance regarding land uses within the boundaries of the MCAS Miramar. The *INRMP* land use chapter recognizes military land uses at MCAS Miramar that are operational (e.g. aircraft operations) and non-operational (e.g. community support) uses and functions. Land uses not directly related to or supportive of the military mission also occur within MCAS Miramar. These non-military uses primarily include outleases and easements for public highways, roadways, utilities, and landfills occurring on the base. The *INRMP* Land Use chapter recognizes that SDG&E Facilities and Maintenance Activities are located on the base, and recognizes the needs for construction activities, regular access, reconstruction, repair, replacement, maintenance, and emergency maintenance activities (*INRMP* Chapter 2.0 – Land Use, page 2-12).

#### Federal

#### MCAS Miramar – Airport Land Use Compatibility Plan

The purpose of the *MCAS Miramar ALUCP* is to promote compatibility between MCAS Miramar and the surrounding land uses, to the extent that those areas are not already devoted to incompatible uses. With limited exception, California law requires preparation of a compatibility plan for each public use and military airport in the state. Most counties have

established an Airport Land Use Commission (ALUC), as provided by law, to prepare compatibility plans for the airports in that county and to review land use plans and development proposals, as well as certain airport development plans, for consistency with the compatibility plans. In San Diego County, the ALUC function rests with the San Diego County Regional Airport Authority (SDCRAA), as provided in section 21670.3 of the California Public Utilities Code.

The MCAS Miramar ALUCP is the fundamental tool used by the SDCRAA, acting in its capacity as the San Diego County ALUC, in fulfilling its purpose of promoting airport land use compatibility. Specifically, the MCAS Miramar ALUCP: 1) provides for the orderly growth of the area surrounding the MCAS Miramar in a manner that is compatible and consistent with the Airport's operations; and 2) safeguards the general welfare of the inhabitants within the Airport's vicinity and public in general. The MCAS Miramar ALUCP serves as a tool for use by the ALUC in fulfilling its duty to review land use development proposals within the AIA at MCAS Miramar. In addition, the MCAS Miramar ALUCP provides compatibility policies and criteria applicable to local agencies in their preparation of amendment of land use plans and ordinances and to land owners in their design of new development. The AIA's geographic coverage is established by the four factors/layers of land use planning related to aeronautical activities: 1) noise; 2) safety; 3) airspace protection; and 4) overflight. The ALUCP's compatibility criteria identify whether a particular land use is compatible, conditionally compatible, or incompatible with the Airport's operations based on the proximity of the land uses to the Airport and four factors/layers. These criteria are then used by the ALUCP to determine whether development projects and local plans located within the AIA for MCAS Miramar are consistent with the ALUCP.

The following communities transected by the Proposed Project area are subject to these criteria: Torrey Hills, Carmel Valley, Los Peñasquitos Canyon Preserve, Del Mar Mesa, Pacific Highlands Ranch, Torrey Highlands, Black Mountain Ranch, Rancho Peñasquitos, Sabre Springs, Miramar Ranch North, Scripps Miramar Ranch and Rancho Encantada. For applicable communities identified in the *ALUCP*, proposed development would require a review for compatibility pertaining to the noise and safety factors (*MCAS Miramar ALUCP*, Table 132-15C and Table 132-15D). Specifically, Los Peñasquitos Canyon Preserve and Torrey Hills are applicable to this identified safety zone factor as they are located within the Accident Potential Zone II and Transition Zone, respectively. Additionally, under the airspace protection factor, proposed development within applicable communities identified in the *ALUCP* are required to notify the FAA by submitting FAA form 7460-1. If the issuance of a construction permit is required, SDG&E shall provide evidence to the City of a final FAA determination of "No Hazard to Air Navigation".

### 4.9.3.2 Land Use Setting

The Proposed Project is located almost entirely within the City of San Diego, with the exception of a very small portion of the southeastern portion of Segment A (near the intersection of Scripps Poway Parkway and Pomerado Road), which is within the City of Poway (refer to Figure 4.9-1). Also, the eastern-most portion of the Proposed Project alignment is on the MCAS Miramar, where it connects to the existing Sycamore Canyon Substation. MCAS Miramar controls land use within its boundaries and also has specific requirements for land use compatibility in the surrounding communities that fall within the AIA. The Proposed Project area has *City of San Diego General Plan* land use designations of Semi-Rural Residential, Rural Lands, and Public Agency Lands (see Table 4.9-1, Designated and Existing Land Uses in the Proposed Project Area). The Proposed Project would be constructed within existing SDG&E ROW, SDG&E franchise area, and existing substation property boundaries.

#### Segment A – Sycamore Canyon Substation to Carmel Valley Road

Extending in a generally north-south direction from the Sycamore Canyon Substation on the MCAS Miramar to Carmel Valley Road, Proposed Project Segment A includes existing electric transmission, power and distribution facilities within an existing 200-foot SDG&E ROW for a length of approximately 8.31 miles. The Proposed Project would include construction of approximately 36 new double-circuit 230 kV tubular steel poles and two 138 kV tubular steel poles between the existing Sycamore Canyon Substation and Carmel Valley Road and two new 230 kV tubular steel poles for the TL 23041 connection at the Sycamore Canyon Substation. All new poles to be installed are located within existing SDG&E ROW. It would also install new 230 kV conductor on new double-circuit 230 kV tubular steel poles and remove approximately 42 wood H-frame structures, two tubular steel poles, one double-circuit cable pole, and two single-circuit wood mono poles. The Proposed Project would relocate existing TL 13820 and TL 13825<sup>1</sup> to second position on the new double-circuit 230 kV tubular steel poles. The existing TL 13820 would be installed in an underground position as it enters the Sycamore Canyon Substation, allowing for the removal of two additional existing 138 kV structures.

Along the Segment A ROW, the Proposed Project begins in an area of open/vacant space land on the MCAS Miramar, passing through the Rancho Encantada, Scripps Miramar North and Miramar Ranch North, and Sabre Springs communities, and also a very small area within the City of Poway (for about 1,500 feet of the alignment) before intersecting with I-15. The land use within and adjacent to the Segment A ROW is characterized primarily by open space/vacant land and single-family residential homes. Many of the open space/vacant parcels along this corridor are canyon areas, and have been designated by the City of San Diego as part of the MHPA. Within the Miramar Ranch North Community, in the vicinity of Scripps Poway Parkway, the Segment A ROW is within 0.25 mile of three schools and several parks. In all, five schools are within 0.25 mile of the Segment A ROW including Ellen Browning Scripps Elementary School, Dingeman Elementary School, the Innovations Academy, the Cambridge School, and Mount Carmel High School. The parks that are within 0.25 mile of the Segment A ROW include Spring Canyon Neighborhood Park, Rancho Peñasquitos Skate Park, Black Mountain Open Space, Park, Hilltop Community Park, Butterfly Gardens Mini-Park, Cypress Canyon Neighborhood Park and Black Mountain Ranch Community Park. Near Scripps Poway Parkway and as Segment A

<sup>&</sup>lt;sup>1</sup> TL 13825 was recently renumbered to 13811 independent of the Proposed Project. All references to TL 13825 refer to TL 13811.

approaches I-15, land use in the area is more urban, and is characterized by a mix of commercial shopping centers, high density residential, and light industrial/office park land uses. Immediately south of the Poway Road/I-15 interchange, Segment A crosses over Cypress Canyon, which consists of vacant/open space land (with hike and bike trails) and is designated as MHPA land.

In the area where Segment A extends from I-15 to SR-56, land uses are generally urban, with commercial/shopping center, single-family residential, apartments, and some limited open space areas as the prevailing land uses. The existing SDG&E Chicarita Substation is located on the east side of the ROW and immediately south of SR-56. The Cambridge School (a private Christian school) is located approximately 1093 feet to the east of the Proposed Project.

North of SR-56, within the community of Rancho Peñasquitos, the Segment A ROW passes over a commercial shopping center (between SR-56 and Carmel Mountain Road). In this area, the Proposed Project line is approximately 259 feet west of the Rancho Peñasquitos Skate Park (owned and operated by the City of San Diego). Between Carmel Mountain Road (to the south) and Sundevil Way (to the north), the Segment A ROW passes through narrow open space/vacant parcels in close proximity to many single-family residential homes. North of Sundevil Way, the Segment A ROW is located within (western portion of) Black Mountain Open Space Park. In this same area, the Proposed Project would be varied in its distance from the Mount Carmel High School property boundary from approximately 143 feet (at its closest point) to approximately 1,616 feet.

At these areas where the Proposed Project Segment A 230 kV transmission line would be near to the Mount Carmel High School property, it is nearest to the football stadium (about 143 feet away). The Proposed Project comes within about 0.20 mile from the closest classroom at the school.

Approximately 507 feet north of Mount Carmel High School, the Segment A ROW passes directly adjacent (to the east) to the Hilltop Community Park (a park with picnic areas and recreational fields). North of the Hilltop Community Park, the prevailing land use within and adjacent to the Segment A ROW, is the Black Mountain Open Space Park. The Black Mountain Open Space Park includes many hiking trails. In this same area, the Segment A ROW passes within close proximity to a few single-family residential neighborhoods. At the northern most portion of the Segment A ROW, north of Carmel Valley Road, the ROW passes within the eastern portion of the Black Mountain Ranch Community Park.

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Pole(s) and other Components	Jurisdiction/Community	General Plan Land Use Designation <sup>1</sup>	Zoning Designation <sup>2</sup>	
Segment No. A – Sycamore Canyon Su	bstation to Carmel Valley Road			
Pole Nos. P1 – P29 and P32 – P40	MCAS Miramar, City of San Diego & City of Poway	Military Use, Park/Open Space/ Recreation, Residential, Industrial Employment, Commercial Employment/Retail/Services	Residential, Open Space, Agriculture, Commercial	Military Base, Open Neighborhood Park, Commercial/Shoppir
Pole Nos. P30 & P31, R31, R32, & R33	City of San Diego	Commercial Employment/Retail/Services	Agriculture & Residential	Apartment Parking L
Pole Nos. R1 – R30 & R34 – R47	MCAS Miramar, City of San Diego & City of Poway	Park/Open Space/Recreation, Residential, Industrial Employment, Commercial Employment/Retail/Services	Residential, Open Space, Agriculture, Commercial	Open Space, Vacant Park, Commercial/Ot
Segment No. B – Carmel Valley Road				
Pole No. P41	City of San Diego	Park/Open Space/Recreation	Agriculture, Open Space, and Residential	P41: Black Mountain
Pole No. P42	City of San Diego	Park/Open Space/Recreation, and Residential	Agriculture, Open Space, and Residential	P42: Vacant/open spa
230 kV underground package	City of San Diego	Roads/Freeways/Transportation, Residential, Institutional/Public/Semi-Public Facilities, Commercial/Employment/Retail/ Services	Agriculture, Open Space, residential, and commercial	Roadway/City ROW Apartments, Comme
230 kV splice vaults	City of San Diego	Roads/Freeways/Transportation, Residential, Institutional/Public/Semi-Public Facilities, Commercial/Employment/Retail/ Services	Agriculture, Open Space, residential, and commercial	Roadway/City ROW Apartments, Comme
Segment No. C – Carmel Valley Road	to Peñasquitos Junction			•
Pole No. P43	City of San Diego	Park/Open Space/Recreation, Residential	Agriculture, Residential	Open Space/Vacant/I
Pole No. R49	City of San Diego	Park/Open Space/Recreation, Residential	Agriculture, Residential	Open Space/Vacant/I
New 230 kV conductor installed	City of San Diego	Park/Open Space/Recreation, Residential	Commercial, Agriculture, Open Space, and Residential	Open Space/Vacant/I Residential
Reconductored & bundled existing 230 kV conductor	City of San Diego	Park/Open Space/Recreation, Residential	Commercial, Agriculture, Open Space, and Residential	Open Space/Vacant/I Residential
Segment No. D - Peñasquitos Junction	to Peñasquitos Substation			
Pole Nos. P45 – P59	City of San Diego	Park/Open Space/Recreation, Residential, Commercial Employment/Retail/Services, & Institutional/Public/Semi- Public Facilities	Agriculture, Open Space, Commercial, Residential, Industrial	Open Space/Vacant/I Commercial/Shoppin
Pole Nos. R50 – R69	City of San Diego	Park/Open Space/Recreation, Residential, Commercial Employment/Retail/Services, & Institutional/Public/Semi- Public Facilities	Agriculture, Open Space, Commercial, Residential, Industrial	Open Space/Vacant/I Commercial/Shoppin
Pole Nos. P60, P61, & P62	City of San Diego	Park/Open Space/Recreation, Institutional/Public/Semi-Public Facilities, Commercial Employment/Retail/Services	Industrial, Commercial	Open Space/Vacant
Pole Nos. R70, R71, & R72	City of San Diego	Park/Open Space/Recreation, Institutional/Public/Semi-Public Facilities, Commercial Employment/Retail/Services	Industrial, Commercial	Open Space/Vacant
New 230 kV conductor	City of San Diego	Park/Open Space/Recreation, Residential, Commercial Employment/Retail/Services, & Institutional/Public/Semi- Public Facilities	Agriculture, Open Space, Residential, Commercial, & Industrial	Open Space/ Vacant/
Notes:				

#### Table 4.9-1: Designated and Existing Land Uses in the Proposed Project Area

<sup>1</sup>Designated land use is taken from the City of San Diego General Plan Land Use Map and generally reflects designated land uses within and adjacent to the Proposed Project ROW.

<sup>2</sup> Zoning designations were taken from City of San Diego Zoning Maps. Zoning signifies the general nature of the pre-approved land uses within a given area.

<sup>3</sup> Existing land use generally reflects the current land use within and adjacent to the Proposed Project ROW.

#### Existing Land Use<sup>3</sup>

Space, Vacant Land, Single-Family Residential, Light Industrial/Business Park, Commercial/Office, g Center Parking Lot, Open Space Park ot, Neighborhood Recreation

Land, Neighborhood Park, Light Industrial/Business fice, Apartment Parking Lot, Open Space Park

Ranch Community Park

ace land, SR-56 and single-family residential homes.

, Open Space/Vacant, Single-Family Residential, rcial, Church, School, Park

, Open Space/Vacant, Single-Family Residential, rcial, Church, School, Park

Preserve, Single-Family Residential Preserve, Single-Family Residential Preserve, Single-Family Residential, and Multi-Family

Preserve, Single-Family Residential, and Multi-Family

Preserve, Park, Single-Family Residential, g Center, Industrial/Energy Facility

Preserve, Park, Single-Family Residential, g Center, Industrial/Energy Facility

Preserve, and Industrial/Energy Facility

Section 4.9 – Land Use and Planning

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#### Segment B – Carmel Valley Road

Segment B of the Proposed Project includes construction of underground transmission line, including trenching and trenchless techniques, within Carmel Valley Road (in the existing franchise position) and construction of 230 kV tubular steel cable pole structures at two locations. The Segment B alignment, within Carmel Valley Road, runs in a north-east to southwest direction between Black Mountain Parkway (on the northeast end) to a point approximately 200 feet east of Via Abertura, for a distance of approximately 2.84 miles.

Along this alignment, Segment B is located within the communities of Rancho Peñasquitos and Torrey Highlands, and the alignment is also immediately south of the community of Black Mountain Ranch. Within the northeastern portion of Segment B, land use is dominated by the Black Mountain Open Space Park (mostly to the north) and single-family residential neighborhoods (mostly to the south). The Church of Jesus Christ of Latter Day Saints is located at the southeastern corner of Carmel Valley Road and Camino Del Sur (14191 Camino Del Sur), while the Poway Unified School District owns large parcels of vacant land at the northeastern corner of this same intersection.

Along Carmel Valley Road/Segment B, between Camino Del Sur and its end point near Via Abertura, adjacent land uses (on both sides of the road) consist of large tracts of vacant/open space land (MHPA lands, including McGonigle Canyon), single-family residential neighborhoods, one small (neighborhood) commercial shopping center, some multi-family housing, and a landscape nursery (near the western end point). Also, the Kids Bay Learning Center, a private pre-school (13770 Carmel Valley Road), is located immediately north of Carmel Valley Road. The Torrey Del Mar Neighborhood Park is located south of Carmel Valley Road, at the corner of Kerry Lane and Torrey Del Mar Drive.

#### Segment C – Carmel Valley Road to Peñasquitos Junction

Extending in a generally north-south direction from Carmel Valley Road (on the north), for approximately 2.19 miles, to the Peñasquitos Junction to the south, Segment C includes installation of new 230 kV conductor on a vacated position on existing double-circuit 230 kV steel structures (10 steel lattice towers) and on one new tubular steel pole that would replace an existing steel lattice tower at the Peñasquitos Junction. All structures are located within existing SDG&E ROW. Existing TL 23001 and TL 23004 would be reconductored and bundled on the east side of the existing structures.

The Segment C ROW passes through the communities of Pacific Highlands Ranch, Torrey Highlands, and Del Mar Mesa. The Segment C ROW traverses an area that is primarily characterized by open/vacant space land, and land that is designated as either MHPA or the Del Mar Mesa Preserve. Between Carmel Valley Road and SR-56, land uses within and adjacent to the Segment C ROW include vacant land which has an open space zoning designation, but that is also part of the MHPA. Also, near this portion of the Segment C ROW are single-family residential homes, the closest of which are approximately 450 feet to the east. Within the SR-56 ROW, on the south side of the freeway, is the SR-56 Bicycle Path, which is a continuous Class I bicycle path along the entire length of SR-56 between I-5 and I-15. The Segment C ROW crosses directly over this bicycle path.

South of SR-56, the Segment C ROW traverses an area that is characterized predominately by open/vacant space land that is either designated as MHPA land or is within the Del Mar Mesa Preserve. This area includes many dirt trails used by mountain bikers and hikers. Within this area, approximately 650 feet of the Proposed Project route near Preserve Way in Del Mar Mesa passes through a 19 acre portion of the San Diego Wildlife Refuge (refer to Section 4.1.3.5). There are also clusters of single-family residential neighborhoods that are located within close proximity to the Segment C ROW. Some of the homes that are closest to the Segment C ROW (to the east side of the ROW) are approximately 0.25 mile south of SR-56 (neighborhood along Torrey Santa Fe Road), with the closest homes roughly 25 feet from the ROW. There are two other clusters of residential neighborhoods within relatively close proximity to the southern portion of the Segment C ROW, with the closest homes within approximately 200 feet from the edge of the ROW. The southern portion of the Segment C ROW, covering a distance of roughly 1 mile, crosses through the Del Mar Mesa Preserve, an area that receives a high level of natural protection, and contains many sensitive vernal pools, and other natural features. Many of the hiking/mountain biking trails within the Del Mar Mesa Preserve are currently closed to protect the natural features that are contained there. There is an extensive network of trails within the Del Mar Mesa Preserve, and these trails cross the ROW in numerous places.

#### Segment D – Peñasquitos Junction to Peñasquitos Substation

Extending in a generally north-east to south-west direction from the Peñasquitos Junction, for approximately 3.34 miles, to the Peñasquitos Substation, Segment D includes installation of new 230 kV conductor on vacated position on existing double-circuit 230 kV steel structures (15 steel lattice towers and one tubular steel pole) located between the Peñasquitos Junction and the Peñasquitos Substation. Also, existing 69 kV power lines (TL 675 and TL 6906) would be consolidated onto approximately 17 new 69 kV, double-circuit tubular steel poles that would replace 15 existing 69 kV wood H-frame structures and five wood monopole structures that currently support TL 675 and TL 6906. Finally, two new 69 kV tubular steel cable poles that would replace existing wood 69 kV cable poles located immediately outside of the Peñasquitos Substation would be installed. All improvements would be made within the existing 300 feet wide SDG&E ROW.

The Segment D ROW passes through the communities of Del Mar Mesa and Torrey Hills, and the ROW forms the southern boundary of the Carmel Valley community. A majority of the land use within and near the Segment D ROW is primarily vacant/open space, and all of this land is either within the Del Mar Mesa Preserve or is designated as MHPA. Within the far southwestern portion of the alignment (near the Peñasquitos Substation), land uses include residential, commercial, industrial, recreational, and open space land uses. Within areas that are north of the central portion of the alignment (in the communities of Del Mar Mesa and Carmel Valley), land use is primarily residential.

Approximately 1.39 miles of the northeastern portion of the Segment D ROW crosses through the center of the Del Mar Mesa Preserve. Further to the southwest, there is a portion of the Segment D ROW which is located within the MHPA and which forms the northern border of the Los Peñasquitos Canyon Preserve. Within this area, the Segment D ROW is located on the hillsides to the north of the Los Peñasquitos Canyon. Within the vicinity of the Segment D ROW there are numerous hiking/mountain biking trails which lead into the Los Peñasquitos Canyon Preserve, the Del Mar Mesa Preserve and other nearby areas within the MHPA lands. To the north of this portion of the Segment D ROW, there are several single-family residential neighborhoods (Del Mar Mesa and Carmel Valley neighborhoods) with residential streets and homes coming within relatively close proximity to the ROW. There are three different areas (within this central/southwestern portion of the Segment D alignment) where residential properties are as close as approximately 75 feet from the ROW.

Within the southwestern portion of the Segment D ROW (within the Torrey Hills Community), the land use within and adjacent to the alignment is more semi-urban in nature. While the ROW itself is primarily located within vacant land, the alignment traverses within close proximity to single-family residential homes, a commercial shopping center (Torrey Hills Center), and ties into the SDG&E Peñasquitos Substation (an industrial/energy land use). Also, within this area, the ROW crosses over the Torrey Hills Dog Park, which is owned and operated by the Torrey Hills Center. Additionally within the Torrey Hills Community, in the vicinity of Carmel Mountain Road and West Ocean Air Drive, the Segment D ROW and specifically the Peñasquitos Substation is within 0.25 mile of one school and one park. This consists of Torrey Hills Elementary School and Torrey Hills Neighborhood Park.

#### **Temporary Construction Staging Areas**

The Proposed Project includes approximately five proposed temporary construction staging yards (refer to Appendix 3-B for locations), resulting in a total area of approximately 25 acres. Staging Yard Nos. 1, 3, 4 and 5 are located in the City of San Diego, while Staging Yard No. 2 is located in the City of Poway (refer to Section 3.4.6.1 for a more detailed description). Staging Yard No. 1 (Stonebridge) is located immediately north of the Sycamore substation and is within an Agricultural-Residential zoning designation (AR-1-1). Staging Yard No. 2 (Stowe) is listed by the City of Poway as zoned as Planned Community 7 – South Poway Business Park and the land use is designated as Light Industrial Zone. Staging Yard No. 3 (Torrey Santa Fe) is within an Industrial-Park Zone (IP-2-1) on the south side of SR-56. Staging Yards Nos. 4 and 5 (Carmel Valley Road and Carmel Mountain Road) are zoned as Agricultural-Residential (AR-1-1). Staging Yards Nos. 1, 2, 3 and 4 have been utilized on recent past projects for similar uses and all of the sites have been previously graded.

#### 4.9.4 Potential Impacts

#### 4.9.4.1 <u>Significance Criteria</u>

Standards of impact significance were derived from Appendix G of the *CEQA Guidelines*. Under these guidelines, the Proposed Project could have a potentially significant impact to land use and planning if it would:

- a) Physically divide an established community;
- b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or
- c) Conflict with any applicable habitat conservation plan or natural community conservation plan.

#### 4.9.4.2 <u>Question 9a – Physically divide an established community?</u>

#### **Construction - No Impact**

The Proposed Project would replace and relocate existing electric transmission and power line facilities and add one new transmission line within existing electric transmission and power line corridors and through franchise position within a City street. Temporary use of some limited areas outside of the existing ROW during construction (e.g. staging yards) would not divide an established community. The Proposed Project construction would occur in areas that are within close proximity (in several places) of residential neighborhoods, within close proximity to a few schools, parks, preserves, open space areas, and either crossing or near areas that include bicycle paths or hiking/mountain biking trails. However, in none of these areas would the Proposed Project introduce transmission or power lines into an area within an established community where transmission or power line facilities are not already located. The only exception to this is Segment B, which would include construction of an electrical transmission line facility that would be buried underground within the Carmel Valley Road ROW within existing franchise position<sup>2</sup>.

Impacts relating to access to parks and other recreational facilities are discussed in Section 4.12, Public Services. Impacts associated with construction within public roadways (and associated lane closures) are discussed in Section 4.14, Transportation and Traffic.

#### **Operation & Maintenance - No Impact**

SDG&E currently maintains and operates existing electric transmission, power, distribution and substation facilities throughout the Proposed Project site. SDG&E's existing facilities and operations and maintenance activities are included in the baseline for evaluating the impacts of the Proposed Project. Any future potential maintenance-related construction projects would be evaluated under General Order 131-D and CEQA for purposes of assessing whether further CPUC approval is required. Operation and maintenance activities within the Proposed Project ROW would not modify, eliminate access to, or divide any community facilities when compared to existing conditions. Therefore, the operations and maintenance of the Proposed Project would not result in significant impacts relating to the physical division of an established community.

#### 4.9.4.3 <u>Question 9b – Conflict with any applicable land use plan, policy, or regulation of</u> <u>an agency with jurisdiction over the project (including, but not limited to the</u> <u>general plan, specific plan, local coastal program, or zoning ordinance) adopted</u> <u>for the purpose of avoiding or mitigating an environmental effect?</u>

#### **Construction– No Impact**

#### MCAS Miramar

As discussed in Section 4.9.3.1, MCAS Miramar has adopted its *INRMP* which guides management and conservation of natural resources on the MCAS Miramar. As stated previously, the *INRMP* provides important resource and regulatory information to support sound

 $<sup>^{2}</sup>$  SDG&E has an existing franchise agreement with the City of San Diego to place utilities underground within City streets.

land use decisions and natural resource management. Also, (as discussed in Section 4.9.3.1) MCAS Miramar and the SDCRAA have adopted the *MCAS Miramar ALUCP*, which is used as a tool for promoting airport land use compatibility. Construction activities for the Proposed Project, within its roughly 0.2 mile ROW alignment on the MCAS Miramar, would remain essentially the same as with existing conditions, and would not conflict with either the *MCAS Miramar INRMP* or the *MCAS Miramar ALUCP*. Additionally, the majority of the Proposed Project falls within the MCAS Miramar AIA and is subject to the *ALUCP* Compatibility Criteria. This requires that any proposed development within applicable communities would be reviewed for compatibility with the Safety and Noise Compatibility Criteria Tables, respectively, and where applicable to Airspace Protection Zones, to notify the FAA to receive a final FAA determination of "No Hazard to Air Navigation". As a result, the Proposed Project would also not conflict with the *MCAS Miramar ALUCP* appertaining to the communities within the AIA.

#### Local Plans and Policies

As discussed in Section 4.9.3.1, the Proposed Project traverses through areas within the *City of* San Diego MSCP, and would not conflict with either the *City of* San Diego MSCP or the *City of* San Diego MSCP Subarea Plan through compliance with the SDG&E Subregional NCCP. As noted above, local land use plans, policies and regulations do not apply to the Proposed Project as a matter of law. As such, the Proposed Project does not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Proposed Project.

The Proposed Project involves the construction of one new 230 kV transmission line within existing SDG&E ROW where similar facilities already exist (existing utility corridors), and within an existing franchise position (city street). The Proposed Project includes the replacement of existing electric facility structures as well as the re-location and consolidation of existing power and transmission lines, also within existing SDG&E ROW and utility corridors. The Proposed Project does not include the construction of any new or relocated electric facilities in areas where similar facilities do not already exist with the exception of the new transmission line located underground through Carmel Valley Road. No changes in land use or zoning are required with the Proposed Project activities. All new structures would be replaced or installed within SDG&E ROW or franchise position, and construction activities would take place within SDG&E property and ROW, with the minor exception of temporary staging areas and stringing sites located outside SDG&E ROW and/or easements that would be used during construction of the Proposed Project. SDG&E communicates with local agencies (i.e., the City of San Diego) about the use of these temporary staging areas to ensure the avoidance of any temporary land use impacts. The use of these staging areas and stringing sites would be temporary and compatible with existing land uses or designation. Therefore, Proposed Project activities would not conflict with any applicable land use plan, policy, or regulation; and no impacts would occur.

Refer to Section 4.12, Public Services, for impacts to recreational facilities during construction of the Proposed Project and Section 4.14, Transportation and Traffic, for impacts to traffic as a result of construction related traffic and construction activities within roadways.

#### **Operation & Maintenance - No Impact**

#### MCAS Miramar

As discussed in Section 4.9.3.1, MCAS Miramar has adopted its *INRMP* which guides management and conservation of natural resources on the MCAS Miramar. The *INRMP* provides important resource and regulatory information to support sound land use decisions and natural resource management. Also, (as discussed in Section 4.9.3.1) MCAS Miramar and the SDCRAA have adopted the *MCAS Miramar ALUCP*, which is used as a tool for promoting airport land use compatibility. Operations and maintenance activities for the Proposed Project, within its roughly 0.2 mile ROW alignment on the MCAS Miramar, would remain essentially the same as with existing conditions, and would not conflict with either the *MCAS Miramar INRMP* or the *MCAS Miramar ALUCP*.

#### Local Plans and Policies

As noted previously, local land use plans, policies and regulations do not apply to the Proposed Project as a matter of law. As such, the underlying general plans and zoning ordinances are not "applicable" and the Proposed Project does not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Proposed Project.

SDG&E currently maintains and operates existing electric transmission, power, distribution and substation facilities throughout the Proposed Project ROW. The Proposed Project would replace and relocate existing electric transmission and power line facilities and add one new transmission line within existing transmission and power line corridors and franchise position within a city street. SDG&E's existing facilities and operations and maintenance activities are included in the baseline for evaluating the impacts of the Proposed Project. Operations and maintenance activities for the Proposed Project would remain essentially the same as compared to baseline conditions due to the increased reliability of the new power line components, the installation of fewer poles along the alignment (replacing existing wood H-frame structures with a single steel pole structure), and the relocation of poles outside of jurisdictional features. Any future potential maintenance-related construction projects would be evaluated under General Order 131-D and CEQA for purposes of assessing whether further CPUC approval is required. Therefore, no impacts to applicable land use plan, policy, or regulation are anticipated.

## 4.9.4.4 <u>Question 9c – Conflict with any applicable habitat conservation plan or natural community conservation plan?</u>

#### **Construction, Operation, and Maintenance – No Impact**

Proposed Project construction activities would fully comply with the SDG&E Subregional NCCP, which supersedes the City of San Diego MSCP and the City of San Diego MSCP Subarea Plan. Proposed Project construction activities would also fully comply with the MCAS Miramar INRMP (refer to Section 4.9.4.3 above). Therefore, through compliance with the SDG&E Subregional NCCP and the MCAS Miramar INRMP, construction, operation, and maintenance of the Proposed Project would not conflict with any relevant planning documents, and no impacts would result.

#### 4.9.5 **Project Design Features and Ordinary Construction/Operating Restrictions**

SDG&E will construct, operate, and maintain the Proposed Project pursuant to the project design features and ordinary construction and operating restrictions (refer to Section 3.8), including the SDG&E *Subregional NCCP*.

#### 4.9.6 Applicant Proposed Measures

The Proposed Project has no potentially significant impacts relating to land use and planning; therefore, no APMs are proposed.

#### 4.9.7 Detailed Discussion of Significant Impacts

Based upon the preceding analysis, no significant impacts relating to land use and planning are anticipated from the Proposed Project.

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#### 4.10 NOISE

Would the project:		Potentially Significant Impact	Potentially Significant Unless APMs Incorporated	Less than Significant Impact	No Impact
a.	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			Ø	
b.	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			V	
с.	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			V	
d.	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			V	
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 expose people residing or working in the project area to excessive noise levels?				V
f.	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				V

#### 4.10.1 Introduction

This section of the PEA describes existing conditions and the potential effects of the Proposed Project in relation to noise and vibration. It includes a study of the noise impacts resulting from the construction, operation, and maintenance of the Proposed Project. The study identifies the location of any sensitive receptors and describes the ordinary construction restrictions that would be implemented to minimize noise during construction, operation, and maintenance of the Proposed Project.

Construction noise-related impacts from the Proposed Project would be short-term at any given location and therefore minimal. Construction noise, while varying according to the equipment in use, would be minimized by the attenuating effect of distance; the intermittent and short duration of the noise; and the use of functional mufflers on all construction equipment. Further, the nature of construction to be performed for the Proposed Project dictates that construction activities and associated noise levels would move along the corridor and that no one residence would be exposed to significant noise levels for more than a few days. The new 230 kV transmission line is being added to areas with existing transmission and power lines and therefore would not substantially change operations and maintenance activities compared to existing baseline conditions. When operational, the transmission line would not generate significant levels of noise.

#### 4.10.2 Methodology

Information regarding the potentially applicable noise standards was obtained from federal, state, regional, and local literature reviews. Evaluation of potential noise impacts from the Proposed Project included examining typical noise levels associated with the proposed construction equipment and resulting construction, operation, and maintenance activities. Data for construction equipment emissions and operational noise emissions were obtained from the literature (see Tables 4-10.6 and 4-10.8).

#### 4.10.3 Existing Conditions

#### 4.10.3.1 <u>Regulatory Setting</u>

#### Federal

There are no federal noise standards that directly regulate the noise from operation of electrical power lines or substation facilities. However, in 1974 the EPA established guidelines for noise levels in order to protect the general population from any identified effects of noise. These guidelines are summarized in the Table 4.10-1, EPA Guidelines.

Sound Level Evaluation	Limit	Purpose of Guideline	
L <sub>eq</sub> (24)	70 dBA	Protect against hearing loss	
L <sub>dn</sub>	55 dBA	Protect against activity interference and annoyance in residential areas, farms, and other outdoors areas where quiet is a basis for use	
L <sub>eq</sub> (24)	55 dBA	Protect against outdoor activity interference where limited time is spent (e.g. school yards, playgrounds)	
L <sub>dn</sub>	45 dBA	Protect against indoor activity interference and annoyance in residences	
Leq (24)45 dBAProtect against indefinite interference in sche		Protect against indoor activity interference in school yards	
Source: EPA, 1978			

Table 4.10-1: EPA Guidelines

These levels are not enforceable standards or regulations. They are provided in order to protect the public health and welfare, and to provide guidelines for the creation and implementation of local noise standards.

Common noise terms used are defined below.

 $L_{eq}$  — The equivalent noise level over a specified period of time (i.e., 1-hour). It is a single value of sound that includes all of the varying sound energy in a given duration.

 $L_{dn}$  — The day-night noise level is the A-weighted sound level over a 24-hour period with an additional 10 db penalty imposed on sounds that occur between 10 p.m. and 7 a.m.

*Statistical Sound Levels* —The A-weighted sound level exceeded a certain percentage of the time. The  $L_{90}$  is the sound level exceeded 90 percent of the time and is often considered the background or residual noise level. The  $L_{10}$  is the sound level exceeded 10 percent of the time and is a measurement of intrusive sounds, such as aircraft overflight.

The following federal laws have been passed in order to regulate and limit noise levels.

#### Noise Pollution and Abatement Act of 1970

The Noise Pollution and Abatement Act of 1970 was passed in order to establish the Office of Noise Abatement and Control (ONAC) within the EPA. ONAC is authorized to conduct investigations of noise, as well as its effect on public health and welfare. These investigations include the identification of noise sources, projected future noise levels, and the effects of the noise on people, property, and animals.

It was concluded in 1981 that noise issues were best handled at the state or local government level. ONAC's funding was phased out in 1982 as the primary responsibility for regulating noise was passed from the federal government to the state and local governments. Despite being defunded, the Noise Control Act of 1972 and the Quiet Communities Act of 1978 have not been rescinded by Congress and remain in effect. These Acts are described below.

#### Noise Control Act of 1972

The Noise Control Act of 1972 is a statute that initiated a federal program of regulating noise pollution, in order to protect human health and minimize the annoyance of noise to the general public. It set emission standards for virtually every source of noise, and informed local governments of their responsibilities in land use planning in order to address noise.

#### Quiet Communities Act of 1978

The Quiet Communities Act of 1978 amended the Noise Control Act. It promoted the development of effective state and local noise control programs, and provided funds for research. It also produced educational materials on the harmful effects of noise, and mitigation measures. The FAA, Federal Railroad Administration, DOT, and Department of Labor have since developed their own noise control programs. Each agency has set its own criteria for unacceptable noise.

#### Federal Transit Administration

The Federal Transit Administration, under the DOT, created a noise and vibration impact assessment manual. It provides guidance for evaluating construction, roadway, and railway noise sources. The manual also presents techniques for predicting and assessing potential noise and vibration impacts, primarily based on the receptor land use.

#### Federal Aviation Administration

The FAA has established 65 decibels (dB) Community Noise Equivalent Level (CNEL) as the noise standard associated with aircraft noise. The CNEL is a time-weighted descriptor that applies penalties of 5 A-weighted sound level (dBA) to the evening hours and 10 dBA to the nighttime hours to account for the increased sensitivity to noise during the periods. The penalty values are added to the hourly equivalent sound levels ( $L_{eq}$ ) prior to computing the weighted 24-hour CNEL level.

#### State

#### California Noise Control Act

The California Noise Control Act states that excessive noise is a serious hazard to public health and welfare. It declares that exposure to certain levels of noise can result in damage, whether it be psychological, physiological, or even economic. This act declares that the State of California is responsible for protecting the health and welfare of its citizens, and must control, prevent, and abate hazardous noise.

#### California Department of Transportation- and Construction-Induced Vibration Guidance

This guidance provides practical methodologies on addressing vibration issues associated with the construction, operation, and maintenance of California DOT projects. Continuous/frequent intermittent vibration sources are significant when their peak particle velocity (PPV) exceeds 0.1 inch per second. Table 4.10-2, Human Response to Transient Vibration outlines some more specific criteria for human annoyance due to vibration. Though the guidance is non-enforceable, it provides the basis for evaluating potential vibration from the Proposed Project.

Human Response	PPV (inches/second)			
Severe	2.0			
Strongly Perceptible	0.9			
Distinctly Perceptible	0.24			
Barely Perceptible	0.035			
Source: Caltrans, 2004				

 Table 4.10-2: Human Response to Transient Vibration

#### Local

#### City of San Diego

The City of San Diego Noise ordinance contains sound level limits and other noise regulations. Normal operation of the power lines and any associated equipment is limited to the noise limits summarized in Table 4.10-3, City of San Diego Sound Level Limits.

Location	Time	One-Hour Average Sound Level Limits (dBA)
	7 a.m. to 7 p.m.	50
Single Family Residential	7 p.m. to 10 p.m.	45
	10 p.m. to 7 a.m.	40
	7 a.m. to 7 p.m.	55
Multi-Family Residential	7 p.m. to 10 p.m.	50
	10 p.m. to 7 a.m.	45
	7 a.m. to 7 p.m.	60
All Other Residential	7 p.m. to 10 p.m.	55
	10 p.m. to 7 a.m.	50
	7 a.m. to 7 p.m.	65
Commercial	7 p.m. to 10 p.m.	60
	10 p.m. to 7 a.m.	60
Industrial Zones	Anytime	70
Source: City of San Diego Municipal Code		

 Table 4.10-3: City of San Diego Sound Level Limits

The San Diego Municipal Code provides separate limitations on construction noise, which is not subject to the limits in Table 4.10-3. Construction noise is prohibited outside the hours of 7 a.m. to 7 p.m., and is prohibited on Sundays and holidays. Construction noise is further limited to an average of 75 dBA over an eight-hour period, 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.

In the event certain projects cannot conform to the requirements of the noise ordinance, the San Diego Municipal Code expressly authorizes the City to grant a permit to allow temporary deviations from those requirements. The permit process is outlined in Section 59.5.0404(a) of the Municipal Code. An application for a permit may be made to the city noise abatement and control administrator, who evaluates the request and determines if a permit will be issued. The evaluation includes review of 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.

#### City of Poway

Chapter 8.08 of the City of Poway Municipal Code addresses noise abatement and control, and is very similar to the City of San Diego Municipal Code. Normal operation of the new transmission line and any associated equipment is limited to the noise limits summarized in Table 4.10-4, City of Poway Sound Level Limits.

Location	Time	One-Hour Average Sound Level Limits (dBA)
Residential, Agriculture, and Semi-Rural Zones with a Conoral Plan Land Use Designation density of lass	7 a.m. to 10 p.m.	50
than 11 dwelling units per acre	10 p.m. to 7 a.m.	40
Posidential Agriculture and Sami Pural Zones with	7 a.m. to 7 p.m.	55
a General Plan Land Use Designation density of 11 or	7 p.m. to 10 p.m.	50
more dwelling units per acre	10 p.m. to 7 a.m.	45
	7 a.m. to 7 p.m.	60
Commercial Zones	7 p.m. to 10 p.m.	55
	10 p.m. to 7 a.m.	55
Industrial Zones	Anytime	70
Source: City of Poway Municipal Code	•	•

Table 4.10-4: City of Poway Sound Level Limits

The City of Poway Municipal Code provides separate limitations on construction noise, which is not subject to the limits in Table 4.10-4. Construction noise is prohibited outside the hours of 7 a.m. to 5 p.m., and is prohibited on Sundays and holidays. Construction noise is further limited to an average of 75 dBA over an eight-hour period, 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. An application for a variance may be made to the City Engineer, who evaluates the request and determines if a variance will be issued. The evaluation includes review of 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.

#### 4.10.3.2 Noise Setting

#### **Overall Project Setting**

The Proposed Project would replace and relocate existing electric transmission and power line facilities within existing utility corridors and franchise position within city streets. The Proposed Project would also add one new transmission line that would also be located within existing utility corridors and within franchise position (Carmel Valley Road).

The Proposed Project passes through developed residential and commercial areas as well as densely vegetated undeveloped areas. The majority of the transmission line is located within the City of San Diego, but also passes through the City of Poway, the MCAS Miramar AIA, and the northern-most portion of MCAS Miramar.

#### Summary of Noise-Sensitive Receptors

Noise sensitive areas are considered to be any areas where there are dwelling units, or sites where frequent human uses occur. This includes residences, schools, libraries, hospitals, and public parks. Residences were identified within varying distances to the project, as close as 50 feet to the existing SDG&E ROW (refer to Figure 4.9-1 and Appendix 3-B).

#### 4.10.3.3 <u>Noise Surveys</u>

A noise survey along the existing transmission and power line corridor was conducted during the evening on October 25<sup>th</sup> and into the early morning hours of October 26, 2013 by TRC. Short term sampling, typically 10 minutes in duration, was utilized in order to characterize the existing sound levels along the transmission line. Ten locations were selected as representative sound monitoring locations (see Figure 4.10-1, Noise Measurement Locations and Ambient Noise Levels). These locations were chosen to focus on residential areas that are close to the corridor.

Monitoring was conducted in the evening hours in order to minimize extraneous sources. The contributing sources of sound included vehicular traffic (both on distant and local roads), some insect noise, and occasional dogs barking. Weather conditions included high humidity, which is conducive to the generation of corona noise. Corona noise is the audible hum and crackling noise that can be heard from higher voltage transmission lines, particularly during inclement weather. Monitoring therefore likely captured the near worst case results, during the presence of audible corona noise. Many of the monitoring locations are located near existing power and transmission lines running along the corridor, and corona noise could be heard at all locations except Calle de los Ninos, Celome Way, Duck Pond Lane, and Hunters Glen Drive. Table 4.10-5, Summary of Measured Ambient Noise Levels, provides the  $L_{eq}$ ,  $L_{10}$ , and  $L_{90}$  measurements for each of the ten locations.

Location	Distance to ROW (ft)	L <sub>eq</sub> (dBA)	L <sub>10</sub> (dBA)	L <sub>90</sub> (dBA)
Fortino Point	150	43.5	45.2	40.1
Cypress Canyon Park Drive	250	42.2	43.5	40.1
Ivy Hill Road	100	47.0	47.9	44.6
Calle de los Ninos	500	47.2	48.9	43.5
Paseo Montalban	50	43.1	46.0	37.2
Mediatrice Lane	300	39.6	41.4	36.8
Celome Way	100	39.6	41.3	34.1
Duck Pond Lane	2,000	40.6	42.5	37.8
Hunters Glen Drive	500	34.7	35.7	31.0
Manor Gate Drive	200	42.2	39.2	36.1
Source: <i>TRC</i> , 2013				

Table 4.10-5: Summary of Measured Ambient Noise Levels (dBA)

Measured  $L_{eq}$  sound levels ranged from approximately 35 dBA to 47 dBA. The measured levels reflect the total noise environment, not only corona noise. The measured levels are typical of suburban areas.

#### 4.10.4 Potential Impacts

The Proposed Project involves the construction of new transmission and power line facilities and the replacement or relocation of existing power line and transmission line facilities as-needed in order to accommodate the new 230 kV transmission line. All proposed overhead facilities would be located within existing SDG&E ROW and utility corridors and proposed underground facilities would be located within existing franchise position. Construction of the Proposed Project would result in increases in noise; however these increases would be temporary in nature and would not result in significant impacts at any one location. Operations and maintenance would result in slight increases in corona noise during inclement weather, but would not result in significant impacts.





Sycamore to Peñasquitos 230 kV Transmission Line Project Noise Monitoring Location Map Figure 4.10-1



Section 4.10 – Noise

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BACK OF FIGURE 4.10-1

#### 4.10.4.1 <u>Significance Criteria</u>

Standards of impact significance were derived from Appendix G of the *CEQA Guidelines*. Under these guidelines, the Proposed Project could have a potentially significant impact regarding noise if it would result in:

- a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;
- c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
- e) Exposure of people residing or working in the project area to excessive noise levels 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; or
- f) Exposure of people residing or working in the project area to excessive noise levels for a project within the vicinity of a private airstrip.

# 4.10.4.2 Question 10a – Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

#### **Construction – Less than Significant Impact**

#### Overhead Line Construction

Construction of the Proposed Project is expected to take approximately twelve months to complete. New steel poles are proposed to be installed along the Proposed Project alignment, mainly within Segments A and D. Each pole installation site can be considered a separate construction site. Construction at each site would include clearing of the pole sites, foundation excavation, grading, concrete placement, steel pole installation, and wire stringing. Along sections of the transmission line that currently employ wood poles, the existing wood poles would be completely removed<sup>1</sup>, and the holes backfilled with soil from the pole replacement. In situations where pole removal would impact sensitive resources, the pole would be truncated slightly below grade and the base would be left in place. Construction would require the temporary use of noise-generating equipment. The construction equipment to be used (Refer to Section 3.4.11) is similar to that used during typical public works projects. Typical noise levels from these construction sources are provided in Table 4.10-6, Typical Overhead Line Construction Sound Levels, for a reference distance of 50 feet.

<sup>&</sup>lt;sup>1</sup> All existing wood poles would be completely removed with the exception of five 138 kV wood H-frame structures that currently have distribution underbuild along Segment A that would be topped so that only a single pole and the distribution line remains (refer to Section 3.3.6.2).

<b>Equipment</b> <sup>1</sup>	Maximum Noise Level at 50 feet (dBA)		
Air Compressor	80 (1)		
Aerial Bucket Truck	75 <sup>(2)</sup>		
Backhoe	80 <sup>(2)</sup>		
Crane	81 <sup>(2)</sup>		
Bulldozer	82 <sup>(2)</sup>		
Drill Rig/Truck-mounted augur	85 <sup>(2)</sup>		
Grader	85 <sup>(1)</sup>		
Helicopter at Takeoff	90 <sup>(3)</sup>		
Mower	88 <sup>(4)</sup>		
Portable Generator	73 (2)		
Rock Drill/rock drilling equipment	81 (2)		
Truck (Dump Truck, Flatbed Truck)	84 <sup>(2)</sup>		
Wire Pulling Machine (pulling rig)	80 (4)		
Notes: <sup>1</sup> Noise levels listed are for typical equipment used during construction, and not all potential equipment used for the Proposed Project is listed herein. The equipment used is considered to be representative of the equipment that would be used during construction of the Proposed Project. Sources: (1) BBN 1971, 1977; (2) Federal Highway Administration, 2006; (3) TRC, 2001; (4) Ebasco, 1989.			

 Table 4.10-6: Typical Overhead Line Construction Sound Levels

It is important to note that the equipment presented would not generally be operated continuously, nor would the equipment always operate simultaneously. There would therefore be times when no equipment is operating and noise would be at ambient levels. Typical usage factors for this type of construction equipment were applied to the above sound levels in order to arrive at the average sound level that may occur during a typical workday. Usage factors are applied irrespective of workday duration. The usage factors account for the fact that equipment are not always operated at full throttle conditions, and are not used for an entire workday. Table 4.10-7, Construction Sound Levels Adjusted for Workday, provides the construction sound levels, adjusted to reflect a typical workday, expected at various distances from a pole site, from 50 feet out to 1,000 feet, covering the range of distances to nearby residences.
E autimm and	Adjusted Noise Level for Workday (dBA)					
Equipment	50 feet	100 feet	200 feet	500 feet	1,000 feet	
Air Compressor	73	67	61	53	46	
Aerial Bucket Truck	73	67	61	53	46	
Backhoe	76	70	64	56	49	
Crane	76	70	64	56	49	
Bulldozer	81	75	69	61	54	
Drill Rig/Truck-mounted Augur	78	72	66	58	51	
Grader	75	69	63	55	48	
Mower	75	69	63	55	48	
Portable Generator	70	64	58	50	43	
Rock Drill/rock drilling equipment	74	68	62	54	47	
Truck (Dump Truck, Flatbed Truck)	81	75	69	61	54	
Wire Pulling Machine (pulling rig)	74	68	62	54	47	

Table 4.10-7: (	<b>Overhead Line</b>	Construction	Sound Levels	Adjusted for	Workday
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Helicopter usage for Proposed Project construction would be limited to those hours deemed acceptable for construction activities by the City of San Diego Noise Code (7 a.m. to 7 p.m.) and the City of Poway Noise Code (7 a.m. to 5 p.m.). Helicopter usage at any one location would be very brief as the lines are being strung or during pole removal and installation activities.

#### Underground Line Construction

An underground transmission line is proposed for Section B of the Proposed Project. Installation of the underground transmission line involves installing vaults, trenching and duct bank installation, cable pulling and splicing, and site cleanup. The construction equipment for underground trenching operations differs from the overhead pole installation. Typical noise levels from representative construction sources are provided in Table 4.10-8, Typical Trenching Construction Sound Levels, for a reference distance of 50 feet.

Equipment <sup>1</sup>	Maximum Noise Level at 50 feet (dBA)
Backhoe	80 (1)
Concrete Saw	90 <sup>(1)</sup>
Crane	81 <sup>(1)</sup>
Excavator	81 <sup>(1)</sup>

 Table 4.10-8: Typical Underground Line Construction Sound Levels

Equipment <sup>1</sup>	Maximum Noise Level at 50 feet (dBA)			
Jackhammer	85 <sup>(1)</sup>			
Paver	77 (1)			
Truck (Dump Truck, Flatbed Truck)	84 (1)			
Vacuum Truck	85 <sup>(1)</sup>			
Wire Pulling Machine (pulling rig)	80 <sup>(2)</sup>			
Notes: <sup>1</sup> Noise levels listed are for typical equipment used during construction, and not all potential equipment used for the Proposed Project is listed herein. The equipment used is considered to be representative of the equipment that will be used during construction of the Proposed Project.				
Sources: (1) Federal Highway Administration, 2006; (2) Ebasco, 1989.				

 Table 4.10-8 (cont.): Typical Underground Line Construction Sound Levels

As is the case with the overhead construction, the equipment presented would not generally be operated continuously, nor would the equipment always operate simultaneously. Typical usage factors for this type of construction equipment were applied to the above sound levels in order to arrive at the average sound level that may occur during a typical workday. Table 4.10-9, Underground Line Construction Sound Levels Adjusted for Workday, provides representative construction sound levels, adjusted to reflect a typical workday expected at various distances from any pole site, from 50 feet out to 1,000 feet.

E automat	Adjusted Noise Level for Workday (dBA)						
Equipment	50 feet	100 feet	200 feet	500 feet	1,000 feet		
Backhoe	74	68	62	54	47		
Concrete Saw	83	77	71	63	56		
Crane	73	67	61	53	46		
Excavator	77	71	65	57	50		
Jackhammer	78	72	66	58	51		
Loader	75	69	63	55	48		
Paver	74	68	62	54	47		
Truck (Dump Truck, Flatbed Truck)	76	70	64	56	49		
Vacuum Truck	81	75	69	61	54		
Wire Pulling Machine	74	68	62	54	47		

Table 4.10-9: Underground Line Construction Sound Levels Adjusted for Workday

#### Analysis

The cities of San Diego and Poway noise codes exempt construction noise from the limits in Tables 4.10-3 and 4.10-4, provided that construction occurs between the hours of 7 a.m. to 7 p.m. (7 a.m. to 5 p.m. for the City of Poway), and, when measured over a workday, to less than 75 dBA at an adjoining property line. Although daily construction activities cannot be predicted and would vary depending on conditions in the field, the data in Tables 4.10-7 and 4.10-9 above reveals that it is possible that construction sound levels may exceed the 75 dBA limit at the few noise sensitive area (NSA) locations where construction would occur less than 100 feet of a residential property line. NSAs along a majority of the route are much further away from where construction would occur, and construction noise levels in these areas would be much lower as shown in Tables 4.10-7 and 4.10-9 above. Nonetheless, in the event construction noise is anticipated to exceed 75 dBA at adjacent properties with NSAs located within less than 100 feet of construction activities, SDG&E would meet and confer with the City (San Diego and/or Poway) to discuss temporarily deviating from the requirements of the Noise Code, as described in the construction noise variance process [Code Sections 59.5.0404(a) and 8.08.230 for the City of San Diego and the City of Poway, respectively]. This meet and confer process is an ordinary construction restriction. If requested by the City (San Diego and/or Poway), SDG&E would evaluate the potential re-location of residents and/or the use of portable noise barriers. As an additional ordinary construction restriction, functional mufflers will be maintained on all equipment to minimize noise levels during construction.

The noise levels presented in Tables 4.10-6 through 4.10-9 are those that would be experienced by people outdoors. A building will provide significant attenuation of associated construction noise impacts. For instance, sound levels can be expected to be up to 27 dBA lower indoors with windows closed. Even in homes with the windows open, indoor sound levels can be reduced by up to 17 dBA.

It is unanticipated, but hydraulic rock drilling or rock blasting may be used to minimize the drilling time. If used, rock blasting would substantially reduce construction time at any one location as extensive digging in hard rock would not be required. Blasting would therefore have the effect of reducing potential noise impacts. Noise associated with these activities would occur intermittently, over short periods of time. In addition, should blasting be required, a noise and vibration calculation would be prepared and submitted to SDG&E Environmental Programs for review before blasting at each site. The construction contractor would be required to comply with all relevant local, state, and federal regulations relating to blasting activities.

Work in the proximity of any single general location of the Proposed Project would likely last no more than a few days to one week at a time, as construction activities move along the corridor. Therefore, no single receptor would be exposed to significant noise levels for an extended period of time. Impacts are anticipated to be less than significant.

#### **Operation & Maintenance – No Impact**

#### Above Ground Lines (Segments A, C and D)

Segments A, C and D have a combination of existing 69 kV and 138 kV power lines as well as 230 kV transmission lines. These existing lines would be consolidated and/or relocated onto the

new steel poles, and a new 230 kV line would be added in all Segments. Provided below is a summary of the existing lines within each Proposed Project Segment.

- Segment A: 12 kV, 69 kV, 138 kV and 230 kV
- Segment C: 138 kV and 230 kV
- Segment D: 69 kV and 138 kV

Modern transmission and power lines have been designed, and are constructed and maintained, to generate a minimum of corona-related noise. 230 kV and smaller lines are usually not a design issue for corona noise due to the low noise levels generated (Burns & McDonnell, Inc., 2010). Typical corona noise levels from 230 kV lines are in the range of only 15 dBA at a distance of 100 feet during dry weather (DMD & Associates Ltd., 2005). During periods of high humidity and rain, this noise level would increase, typically in the range of 5 dBA to 20 dBA depending on weather conditions, with the larger increases occurring during rain. These somewhat higher levels are then masked by the sound of falling rain. Also, in most cases, people are indoors where the sound would be inaudible during these times. Corona noise associated with relocation/consolidation of existing lines and addition of the new 230 kV line would be below the noise level limits of local jurisdictions, and no impact would occur.

Short-term operational noise may be generated when regular or emergency maintenance is needed. However, this is consistent with the existing conditions, as periodic maintenance is currently conducted for the existing power line.

#### Underground Lines (Segment B)

No audible corona noise would be generated from operation or maintenance of the underground line. Operation and maintenance of the underground transmission lines (Segment B) would require occasional access to approximately ten splice vaults that would only occur at very infrequent intervals (approximately once every three years), and would not generate any additionally noise above existing baseline levels. Additional maintenance would be limited to normal landscaping activity (i.e., periodic grass cutting), consistent with the existing condition. Therefore, no impacts due to operation or maintenance would occur.

# 4.10.4.3 <u>Question 10b – Exposure of persons to or generation of excessive groundborne</u> vibration or groundborne noise levels.

#### **Construction – Less than Significant Impact**

Construction activities have the potential to generate groundborne vibration and groundborne noise, depending on the type of construction equipment in use and the distance to the receiver.

The human response thresholds for vibration (refer to Table 4.10-2), indicate that vibration is barely perceptible with a PPV of 0.035. Table 4.10-10, Vibration Source Levels for Construction Equipment at 50 feet, provides vibration source levels for some construction equipment expected (or representative of the equipment) to be utilized for the Proposed Project, which have been normalized to a reference distance of 50 feet, which is approximately the closest any one single residence would be to any pole or trenching site.

<b>Equipment</b> <sup>1</sup>	PPV at 50 Feet
Caisson Drill (drilling rig)	0.031
Loaded Truck (flatbed)	0.027
Bulldozer (small)	0.001
Notes: <sup>1</sup> Vibration levels listed are for typic construction, and not all potential ec Project is listed herein. The equipment representative of the equipment that the Proposed Project.	cal equipment used during quipment used for the Proposed ent used is considered to be will be used during construction of
Source: FTA, 2006	

Referring to the data in Table 4.10-10, vibration levels would be below the barely perceptible response level. Because the closest residences are 50 feet or more away from where any construction would occur, no impacts are anticipated.

Vibration levels associated with rock blasting, if conducted, would be site-specific and depend on soil/rock conditions at the site, the amount of explosive used, and the depth that the blasting occurs. In the unlikely event that rock blasting is used during construction, SDG&E would implement ordinary construction restrictions to ensure that any blasting activities comply with applicable laws, regulations, and ordinances; and that potential adverse effects from blasting activities located near NSAs would be less than significant.

#### **Operation & Maintenance – No Impact**

SDG&E currently maintains and operates extensive existing electric transmission, power, distribution and substation facilities throughout the Proposed Project site, and the Proposed Project is the reconstruction of existing electric facilities within existing SDG&E ROW property and the addition of a new 230 kV transmission line. SDG&E's existing facilities and operations and maintenance activities are included in the baseline for evaluating the impacts of the Proposed Project. Operations and maintenance activities for the Proposed Project would decrease slightly compared to baseline conditions due to the increased reliability of the new transmission and power line components, the installation of fewer poles along the alignment, and the relocation of poles outside of jurisdictional features as-needed. Any future potential maintenance-related construction projects would be evaluated under General Order 131-D and CEQA for purposes of assessing whether further CPUC approval is required. None of the Proposed Project facilities generate vibration during operation; therefore, no impacts due to vibration would occur during operation. Maintenance of the new underground line would be limited to inspections of the vaults that occur once every three years. The maintenance activities are not anticipated to include any vibration generating sources. As such, no vibration impacts would occur during operation and maintenance.

# 4.10.4.4 <u>Question 10c – A substantial permanent increase in ambient noise levels in the project vicinity above levels without the project.</u>

#### **Construction – No Impact**

Construction activities would be a temporary feature, performed over approximately eleven months. Therefore, no permanent increase in ambient noise levels would occur, and there would be no impact.

#### **Operation & Maintenance – Less Than Significant Impact**

Relocation and consolidation of the existing transmission power lines would not be expected to significantly alter the level of corona noise present at any given time, as the distances the lines would be moved is minimal. The addition of the new 230 kV line similarly would result in minimal increases in corona noise levels. As an example, Segment areas A, C, and D already experience a minimal level of corona noise at close proximity to the lines. The addition of another 230 kV line in these Segments with multiple lines, including an existing 230 kV line, would result in an increase in corona only noise levels of less than 3 dBA (adding a new source to an existing source with the same sound level results in an increase of 3 dBA). An increase in noise of less than 3 dBA is considered to be a barely perceptible increase in noise (FHWA, 1995).

SDG&E currently maintains and operates extensive existing electric transmission, power, distribution and substation facilities throughout the Proposed Project area. The Proposed Project involves the construction of new transmission line facilities and the replacement or relocation of existing power line and transmission line facilities as-needed in order to accommodate the new 230 kV transmission line. All proposed overhead facilities would be located within existing SDG&E ROW and utility corridors and proposed underground facilities would be located within an existing franchise position. SDG&E's existing facilities and operations and maintenance activities are included in the baseline for evaluating the impacts of the Proposed Project. Operations and maintenance activities for the Proposed Project would decrease slightly compared to baseline conditions due to the increased reliability of the new transmission and power line components, the installation of fewer poles along the alignment, and the relocation of poles outside of jurisdictional features as-needed. Any future potential maintenance-related construction projects would be intermittent, and would be evaluated under General Order 131-D and CEQA for purposes of assessing whether further CPUC approval is required. Less than significant impacts due to noise from operation and maintenance would occur.

#### 4.10.4.5 <u>Question 10d – A substantial temporary or periodic increase in ambient noise</u> <u>levels in the project vicinity above levels existing without the project.</u>

#### **Construction – Less Than Significant Impacts**

Impacts during construction have been outlined in the response to Question 10a. Construction activities along the Proposed Project route would result in short-term noise impacts. However, such impacts would be temporary, localized, and intermittent. Ordinary construction restrictions (refer to Section 3.8) will be utilized in order to minimize noise impacts that occur during construction. Therefore, construction impacts from the Proposed Project would be less than significant.

#### **Operation & Maintenance – Less Than Significant Impacts**

Impacts during operation and maintenance of the Proposed Project have been outlined in the responses to Questions 10a and 10c. No substantial temporary or periodic increases in ambient noise levels are expected. A slight increase in corona noise would occur, although increases in corona noise would be minimal. Further, the ambient noise monitoring program revealed that corona noise is a minor part of the overall noise environment, and therefore increases in total ambient noise levels would accordingly be even lower. Therefore, impacts would be less than significant.

#### 4.10.4.6 <u>Question 10e – For a project located within an airport land use plan or, where</u> 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.

#### **Construction, Operation & Maintenance – No Impact**

The Proposed Project is not located within two miles of a public airport. The Proposed Project is located within the *MCAS Miramar ALUCP* and associated AIA. As required by the *MCAS Miramar ALUCP*, any proposed development within applicable communities in the AIA would be reviewed for compatibility with the Noise Compatibility Criteria Table. However, the Proposed Project does not include development that would expose people to excessive noise levels. The Proposed Project is located over 5 miles from the Miramar Airport runways. Furthermore, construction workers would only be present during construction, and operation and maintenance crews are already present within all portions of the Proposed Project alignment that fall within the *MCAS Miramar ALUCP* and also are only present for short periods of time. No impacts are anticipated.

The nearest public airports are Montgomery Field and Gillespie Field; both located over 8 miles from the Proposed Project. Helicopter operations during construction of the Proposed Project could utilize these airports (as well as other local airports) for staging (e.g., fueling and parking). No impacts would occur due to the distance from the Proposed Project to these airports. No impacts are anticipated.

# 4.10.4.7 <u>Question 10f – For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.</u>

#### **Construction, Operation & Maintenance – No Impact**

The Proposed Project area is not located within the vicinity of any private airstrips. It is not currently anticipated that the Proposed Project would utilize private airstrips for construction, operation or maintenance. If the Proposed Project were to utilize a private airstrip, such utilization would not expose people residing or working in the Proposed Project area to excessive noise levels. Therefore, no impacts would occur.

#### 4.10.5 Project Design Features and Ordinary Construction/Operating Restrictions

With implementation of the ordinary construction restrictions (as outlined within Section 3.8) potential impacts relating to construction-generated noise would remain less than significant and the Proposed Project would comply with local noise ordinances for the vast majority of the route. For the few locations where the Proposed Project would exceed the noise ordinances, as discussed previously, SDG&E would meet and confer with the appropriate City to discuss temporarily deviating from the requirements of the Noise Code, as described in the construction noise variance process (see Section 4.10.3.1).

#### 4.10.6 Applicant Proposed Measures

The Proposed Project has no significant impacts relating to noise; therefore, no APMs are proposed.

#### 4.10.7 Detailed Discussion of Significant Impacts

Based upon the preceding analysis, no significant impacts relating to noise are anticipated from the Proposed Project.

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#### 4.11 POPULATION AND HOUSING

Would the project:		Potentially Significant Impact	Potentially Significant Unless APMs Incorporated	Less than Significant Impact	No Impact
a.	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			V	
b.	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				Z
с.	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				N

#### 4.11.1 Introduction

This section of the PEA describes the existing conditions and potential project-related impacts to population and housing. The Proposed Project would neither significantly impact the regional or local population nor result in displacement of existing housing or people resulting in the construction of replacement housing.

#### 4.11.2 Methodology

Population, housing, employment, and workforce data were obtained via the internet from statistical reports from the U.S. Census Bureau, San Diego Association of Governments (SANDAG), the California Department of Finance – Demographic Research Unit, and the California Employment Development Department.

#### 4.11.3 Existing Conditions

#### 4.11.3.1 <u>Population</u>

The vast majority of the Proposed Project is located in the City of San Diego, a small portion of the Proposed Project (within the eastern portion) is located within the City of Poway, and another small portion is on the MCAS Miramar. The Proposed Project is also located entirely within San Diego County, although no portion of the Proposed Project crosses an unincorporated area of San Diego County. The 2010 population of the County of San Diego was 3,095,313, making San Diego County the second most populated county in the state (California Department of Finance, 2013). Population in the County of San Diego in 2012 was 3,177,063. A breakdown of the population in the year 2010 and 2012, and the projected population for 2020 is provided in Table 4.11-1, Population Estimates and Projections. Estimates of population for the City of San Diego and the City of Poway in 2012 are 1,338,348 and 49,071, respectively. From 2010 to 2020, the City of San Diego population is projected to grow by approximately 18.5 percent,

while the City of Poway population is projected to grow by approximately 13.1 percent. This compares to San Diego County (as a whole), where population is forecast to grow by 14.2 percent for the period.

City/County/Region	Population in 2010 <sup>1</sup>	Population in 2012 <sup>2</sup>	Population Projections for 2020 <sup>3</sup>		
City of San Diego	1,301,617	1,338,348	1,542,324		
City of Poway	47,811	49,071	54,054		
San Diego County	3,095,313	3,177,063	3,535,000		
Sources: (1) U.S. Census Bureau – 2010 Decennial Census; (2) U.S. Census Bureau – State and County QuickFacts. Population Estimates 2012; and (3) SANDAG, Fast Facts – City of San Diego, City of Poway, and San					

<b>Table 4.11-1:</b>	<b>Population</b>	<b>Estimates</b>	and	<b>Projections</b>
	- opulation			1 i ojectiono

4.11.3.2 Housing

Table 4.11-2, Total Housing Units and Vacancy Rates (2010) summarizes the total housing units and vacancy rates in the year 2010. The housing vacancy rate in 2010 for the City of San Diego was 6.4 percent, while that of the City of Poway was 3.5 percent. This compares to San Diego County (as a whole), where the housing vacancy rate (at 6.7 percent) is slightly higher than that of the City of San Diego and substantially higher than the City of Poway.

City/County/Region	Housing Units	Vacancy Rate (percent)
City of San Diego	516,033	6.4
City of Poway	16,715	3.5
San Diego County	1,164,786	6.7
Source: U.S. Cansus Burgay - 2010 Decannial Cansus		

 Table 4.11-2: Total Housing Units and Vacancy Rates (2010)

Diego County, October 2011.

#### **Employment and Income** 4.11.3.3

Table 4.11-3, Total Employment and Unemployment (2013) summarizes employment statistics in the Proposed Project area for August 2013. The City of San Diego had an unemployment rate of 7.4 percent, while the City of Poway had a lower unemployment rate, at 4.4 percent. San Diego County had the same unemployment rate as the City of San Diego, at 7.4 percent. Within San Diego County (as a whole) the average annual unemployment rate has been slowly declining since a recent peak in 2010 (at 10.5 percent) to the current unemployment rate for 2013 (at 7.4 percent) (California Employment Development Department, 2013a).

City/County/Region	Labor Force	Unemployment Rate (percent)	
City of San Diego	717,900	7.4	
City of Poway	29,000	4.4	
San Diego County	1,608,300	7.4	
Source: California Employment Development Department, 2013b.			

#### Table 4.11-3: Total Employment and Unemployment (2013)

As illustrated in Table 4.11-4, Median Household Income (2009), the median household income in the cities of San Diego and Poway was \$61,118 and \$105,099, respectively. By comparison, San Diego County (as a whole) had a median household income of \$62,771, which is only slightly higher than that of the City of San Diego.

City/County/Region	Median Household Income	
City of San Diego	\$61,118	
City of Poway	\$105,099	
San Diego County	\$62,771	
Source: SANDAG, Fast Facts – City of San Diego, City of Poway, and San Diego County, October 2011.		

#### 4.11.4 Potential Impacts

The Proposed Project involves the construction of new transmission line facilities and the replacement or relocation of existing power line and transmission line facilities as needed in order to accommodate the new 230 kV transmission line. All proposed overhead facilities would be located within existing SDG&E ROW and utility corridors and proposed underground facilities would be located within existing franchise position (city street). Construction of the Proposed Project could result in a very minor, temporary increase in populations; however, no significant impacts relating to population and housing are anticipated.

#### 4.11.4.1 <u>Significance Criteria</u>

Standards of impact significance were derived from Appendix G of the *CEQA Guidelines*. Under these guidelines, the Proposed Project could have a potentially significant impact to population and housing if it would:

- a) Induce substantial population growth in the project 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 housing, necessitating the construction of replacement housing elsewhere; or
- c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

#### 4.11.4.2 <u>Question 11a - Induce substantial population growth in the project area either</u> <u>directly (for example, by proposing new homes and businesses) or indirectly (for</u> <u>example, through extension of roads or other infrastructure)?</u>

#### **Construction – Less Than Significant Impact**

Construction activities are expected to take approximately 12 months. During peak construction times, SDG&E would employ up to approximately 90 workers per day (including construction monitors and support staff). SDG&E would supplement its workforce as required during construction from a contractor's pool of experienced personnel. It is not anticipated that substantial numbers of workers would need to reside temporarily at local lodging establishments. While the population of San Diego County could increase (at most) by the number of construction personnel required for construction (up to 90 at peak of construction), this increase would likely be temporary and insignificant with respect to the total population of San Diego County, as well as the City of San Diego, where most of the workforce would likely find housing. Furthermore, it is anticipated that the Proposed Project would primarily employ workers who are already living within San Diego County, and therefore any potential increase in population that would be caused by the Proposed Project would likely be less than the number of workers who are employed and their families. As outlined in Table 4.11-2, housing vacancy rates for the City of San Diego, the City of Poway, and San Diego County are 6.4, 3.5, and 6.7 percent, respectively. Considering a total of approximately 1.16 million housing units (in 2010) within San Diego County (as a whole), the maximum number of workers would represent an insignificant increase in demand for housing. Therefore, direct impacts to population would be less than significant.

Construction of the Proposed Project would not result in any indirect increases in population as the Proposed Project would not provide access to previously inaccessible areas, extend public services to previously un-served areas, or cause new development. Therefore, there would be no indirect impacts to population and housing.

#### **Operation & Maintenance – No Impact**

Operation and maintenance activities of the Proposed Project would be virtually the same as existing conditions for the existing transmission line facilities. As a result, the Proposed Project would not induce population growth directly or indirectly. The Proposed Project would not extend service into new areas. Therefore, no impacts would occur.

# 4.11.4.3 <u>Question 11b – Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?</u>

#### **Construction and Operation & Maintenance – No Impact**

The Proposed Project would replace and relocate existing electric transmission and power line facilities within existing utility corridors and franchise position within city streets. The Proposed Project would also add one new transmission line that would also be located within existing utility corridors and within franchise position. All proposed new and relocated facilities would be located in existing SDG&E ROW that contain similar facilities that are currently operated and maintained, except for the new underground segment of 230 kV transmission line within Carmel

Valley Road. The Proposed Project would not displace any existing housing. Therefore, the Proposed Project would not require the construction of replacement housing elsewhere and there would be no impacts to housing.

# 4.11.4.4 <u>Question 11c – Displace substantial numbers of people, necessitating the</u> <u>construction of replacement housing elsewhere</u>

#### **Construction and Operation & Maintenance – No Impact**

As described in response to Question 4.11.4.3, construction and operation of the Proposed Project would occur entirely within existing SDG&E ROW and within an existing City street (Carmel Valley Road). Therefore, the Proposed Project would not displace any people that would require the construction of new housing elsewhere and there would be no impacts

#### 4.11.5 Project Design Features and Ordinary Construction/Operating Restrictions

There are no project design features or ordinary construction/operating restrictions that are applicable to the Proposed Project related to population and housing.

#### 4.11.6 Applicant Proposed Measures

The Proposed Project would not result in significant impacts relating to population and housing. Therefore, no Applicant Proposed Measures are being proposed.

#### 4.11.7 Detailed Discussion of Significant Impacts

The Proposed Project would not result in significant impacts relating to population and housing.

#### 4.11.8 References

- California Department of Finance Demographic Research Unit. 2013. Report E-5 Population and Housing Estimates for Cities, Counties, and State, January 1, 2011 – 2013, with 2010 Benchmark. Revised May 10. Online: <u>http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php</u> Site visited October 14, 2013
- California Employment Development Department. 2013a. Historical Civilian Labor Force Data by County. Online: <u>http://www.labormarketinfo.edd.ca.gov/LMID/Labor\_Force\_Unemployment\_Data.html</u> Site visited on November 12, 2013.
- California Employment Development Department. 2013b, Monthly Labor Force Data for Cities and Census Designated Places (CDP). <u>http://www.labormarketinfo.edd.ca.gov/Content.asp?pageid=1006</u> Accessed October 4, 2013.
- San Diego Association of Governments (SANDAG). 2011. Fast Facts City of San Diego, City of Poway and San Diego County. October. Online:

http://www.sandag.org/resources/demographics\_and\_other\_data/demographics/fastfacts/i ndex.asp.\_Site visited on October 14, 2013.

- San Diego Association of Governments (SANDAG). 2012. Demographic and Socio Economic Estimates, January 1, 2012 Estimate. Online: <u>http://profilewarehouse.sandag.org/</u> Site visited on November 12, 2013.
- U.S. Census Bureau. 2010. 2010 Decennial Census 2010 Summary File 1 (SF1) 100% Data. http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t Site visited on October 22, 2013.
- U.S. Census Bureau. 2012. *State and County QuickFacts. Population Estimates 2012.* Online: <u>http://quickfacts.census.gov/qfd/index.html</u> Site visited on November 12, 2013.

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#### 4.12 PUBLIC SERVICES

Would the project:		Potentially Significant Impact	Potentially Significant Unless APMs Incorporated	Less than Significant Impact	No Impact
a.	Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i.	Fire protection?			$\checkmark$	
ii.	Police protection?			$\checkmark$	
iii.	Schools?			V	
iv.	Parks?		V		
v.	Other public facilities?				V

#### 4.12.1 Introduction

This section of the PEA describes local public services in the vicinity of the Proposed Project. Fire and police protection, parks, schools, and other public facilities such as hospitals and libraries are addressed, and the potential effects resulting from the Proposed Project construction, operation, and maintenance are evaluated. It is anticipated that some existing parks and recreational facilities would be temporarily impacted as a result of construction of the Proposed Project, but that impacts would be less than significant with incorporation of APMs PS-1 through PS-5. For all other public facilities there would less than significant or no impact as a result of the Proposed Project.

#### 4.12.2 Methodology

Public services, utilities, and service systems data were obtained from searches of local government websites and other local service informational resources. The review also included Google Earth maps, aerial photographs of the Proposed Project area, GIS data, and online maps. Anticipated construction schedules, temporary (construction) impact areas, and permanent (operation and maintenance) impact areas were reviewed where project-related activities would occur within existing public parks.

#### 4.12.3 Existing Conditions

#### 4.12.3.1 <u>Public Services Setting</u>

#### **Fire Protection**

Throughout the City of San Diego, where the vast majority of the Proposed Project alignment is located, the San Diego Fire-Rescue Department provides fire protection service. The Department also provides many other services, including emergency/rescue services, hazard prevention, and safety education ensuring the protection of life, property and the environment. The Fire-Rescue Department has a service territory covering 331 square miles, serving a population of approximately 1.3 million people, and it covers 17 miles of coastline extending 3 miles offshore and also approximately 4,600 acres around Mission Bay Park. The Fire-Rescue Department includes 47 fire stations within the City of San Diego. The Department includes the following budgeted personnel: 801 uniformed fire personnel, 338 uniformed lifeguard personnel, and 161 civilian personnel. Within the vicinity of the Proposed Project, the Fire-Rescue Department has seven fire stations in the following locations:

- Fire Station 37 Located at 11640 Spring Canyon Road (Scripps Ranch area). This fire station is located approximately 0.58 mile south of the Proposed Project Segment A.
- Fire Station 40 Located at 13393 Salmon River Road (Rancho Peñasquitos area). This fire station is located approximately 0.65 mile west of the Proposed Project Segment A.
- Fire Station 44 Located at 10011 Black Mountain Road (eastern Mira Mesa area). This fire station is located approximately 2.93 miles southwest of the Proposed Project Segment A and approximately 3.72 miles southeast of the Proposed Project Segment C.
- Fire Station 46 Located at 14556 Lazanja Drive (Black Mountain Ranch area). This fire station is located approximately 1.08 miles north of the Proposed Project Segment B.
- Fire Station 47 Located at 6041 Edgewood Bend Court (Pacific Highlands Ranch area). This fire station is located approximately 1.33 miles west of the Proposed Project Segment C.
- Fire Station 24 Located at 13077 Hartfield Avenue (Carmel Valley area). This fire station is located approximately 2.52 miles north of the Proposed Project Segment D.
- Fire Station 41 Located at 4914 Carroll Canyon Road (Mira Mesa west area). This fire station is located approximately 2.09 miles south of the Proposed Project Segment D (City of San Diego, 2013a).

A very small portion of the Proposed Project, along the eastern portion of the Proposed Project alignment (near the intersection of Pomerado Road and Scripps Poway Parkway) is within the City of Poway and receives fire protection services from the City of Poway Fire Department. The City of Poway Fire Department covers an area of approximately 40 square miles and serves a population slightly greater than 50,000 (City of Poway, 2013).

The City of Poway Fire Department is staffed by a full-time professional work force and currently has four chief officers, 48 sworn fire suppression personnel, one senior fire inspector, one contract fire inspector, and one senior administrative assistant. The command staff is made

up of the fire chief (Director of Safety Services) and three division chiefs. The Director of Safety Services has the additional responsibility of administering the San Diego County Sheriff's Department law enforcement contract within the City of Poway. The closest City of Poway Fire Department fire station which that would serve the (small portion of) the Proposed Project area is Fire Station 1, located at 13050 Community Road, Poway, California (City of Poway, 2013). Fire Station 1 is located approximately 2.09 miles north of the Proposed Project Segment A 230 kV transmission line.

On the MCAS Miramar, in the southeast corner of the Proposed Project), the Miramar Fire Department provides fire protection services. The Miramar Fire Department is a full service, allrisk Fire Department, providing state-of-the-art services such as Advanced Life Support; Emergency Medical Services (EMS); residential, commercial, and wildland fire suppression; technical rescue services; hazardous materials safety; fire prevention code enforcement; public education; and community service. The Miramar Fire Department employs 69 personnel to accomplish its Mission. Staffing is provided for fire prevention, training, communications, and two fire stations. The Miramar Fire Department operates three engine companies, two medicambulances and a Chief Officer position from two stations, 24-hours a day, 365 days a year. The Miramar Fire Department cross-staffs a rescue truck, a water tender, two brush trucks, and a hazmat truck. It serves a geographical area consisting of urban development interfacing with wildland areas and covers approximately 23,015 acres within the MCAS Miramar (MCAS Miramar, 2013).

#### Law Enforcement

For the majority of the Proposed Project area the City of San Diego Police Department provides law enforcement. The exception to this includes a small area of the Proposed Project (eastern portion) that crosses into the City of Poway. The Proposed Project area is located within the Northeastern and Northwestern Divisions of the City of San Diego Police Department. The Northeastern Division serves the neighborhoods of Carmel Mountain, Miramar, Miramar Ranch North, Mira Mesa, Rancho Bernardo, Rancho Encantada, Rancho Peñasquitos, Sabre Springs and Scripps Ranch. The Northeastern Division service area includes a population of 234,394 people and encompasses 103.8 square miles. It includes one police station, which is located at 13396 Salmon River Road, San Diego, California 92129 (in the Rancho Peñasquitos community), approximately 0.67 mile west of the Proposed Project Segment A 230 kV transmission line. The Northwestern Division serves the neighborhoods of Sorrento Valley, Torrey Preserve, Del Mar Heights, Carmel Valley, North City, Torrey Highlands, and Black Mountain Ranch. Its service area includes a population of 70,822 and encompasses an area of 41.6 square miles. This Division includes one police station, which is located at 12592 El Camino Real, San Diego, California 92130 (in the Carmel Valley community), which is approximately 2.18 miles north of the Proposed Project Segment D (City of San Diego, 2013b).

Within a very small portion of the eastern Proposed Project alignment, law enforcement is provided by the San Diego County Sheriff's Department. The San Diego County Sheriff's Department operates the Poway Station, which is located at 13100 Bowron Road, Poway, California 92064-5775, which is approximately 2.10 miles north of the Proposed Project Segment A. The Poway Station provides law enforcement and safety services within the City of Poway and also unincorporated areas just outside the city limits. The Poway Station serves

slightly more than 50,000 Poway residents and an approximate 40 square-mile area (San Diego County Sherriff's Department, 2013).

#### Schools

Within the vicinity of the Proposed Project there are five school districts, which include the Poway Unified School District, Del Mar Unified School District, Solana Beach Unified School District, the San Dieguito Union High School District, and the San Diego Unified School District. The closest public and private schools to the Proposed Project alignment include the following:

- <u>Ellen Browning Scripps Elementary School</u> San Diego Unified School District. This school is located at 11778 Cypress Canyon Road, San Diego, California 92131 (near the intersection of Cypress Canyon Road and Alderhill Terrace). The Proposed Project Segment A would be located approximately 1170 feet to the north of this school, and approximately 1,007 feet to the closest classroom building (Ellen Browning Scripps Elementary School, 2013).
- <u>Dingeman Elementary School</u> San Diego Unified School District. This school is located at 11840 Scripps Creek Drive, San Diego, California 92131 (near the intersection of Scripps Poway Drive and Scripps Poway Parkway). The Proposed Project Segment A would be located approximately 742 feet north of this school (on the opposite side of Scripps Poway Parkway from the school) (Dingeman Elementary School, 2013).
- <u>Innovations Academy</u> San Diego Unified School District. This is a kindergarten through 8<sup>th</sup> grade charter school. This school is located at 10380 Spring Canyon Road, San Diego, California 92131 (near the intersection of Scripps Poway Parkway and Spring Canyon Road). The Proposed Project Segment A would be located approximately 572 feet north of the school property and approximately 463 feet from the closest classroom (and across Scripps Poway Parkway from the school) (Innovations Academy, 2013).
- <u>The Cambridge School</u> The Cambridge School is a private, Christian school, serving pre-Kindergarten through 8<sup>th</sup> Grade. This school is located at 10075 Azuaga Street, San Diego, California 92129 (located along Azuaga Street, south of State Route 56 (SR-56) and east of Rancho Peñasquitos Boulevard). The Proposed Project Segment A would be located approximately 1093 feet west of the school property and approximately 586 feet to the closest classroom (Cambridge, 2013).
- <u>Mount Carmel High School</u> Poway Unified School District. This school is located at 9550 Carmel Mountain Road, San Diego, California 92129 (located at the intersection of Carmel Mountain Road and Sun Devil Way). The Proposed Project Segment A would be varied in its distance from the school property boundary, between approximately 143 feet (at its closest point) to approximately 1,616 feet. However, at these areas where the Proposed Project Segment A would be near to the school property, it is near to the football stadium (at about 143 feet away). The Proposed Project Segment A comes within about 0.20 mile from the closest classroom at the school (Poway Unified School District, 2013).
- <u>Kids Bay Learning Center</u> This private pre-school is located at 13770 Carmel Valley Road, San Diego, California 92130. This school is located approximately 187 feet north

of the Proposed Project Segment B, and is also approximately 992 feet east of the Proposed Project Segment C (at the northern terminus of Segment C where it meets Segment B) (Kids Bay Learning Center, 2013).

• <u>Torrey Hills School</u> – This public elementary school is located at 10830 Calle Mar De Mariposa, San Diego, California 92130. The school is located approximately 950 feet southwest of the Peñasquitos Substation, at the western termination of Proposed Project Segment D (Del Mar Unified School District, 2013).

#### Parks

The Proposed Project alignment either crosses or is located near a variety of parks, open space areas, preserves, and recreation areas which include the following:

- <u>Spring Canyon Neighborhood Park</u> Located along Scripps Poway Parkway and approximately 294 feet south of the Proposed Project Segment A. This park includes baseball fields and other park facilities.
- <u>Rancho Peñasquitos Skate Park</u> This skate park is owned and operated by the City of San Diego – Parks and Recreation Department, and is located at 10111 Carmel Mountain Road, San Diego, California 92129. The 22,000 square foot skate park has a mix of wood and concrete structures, ramps, and other skateboarding terrain (City of San Diego, 2013c). This skate park is located approximately 259 feet to the east of the Proposed Project Segment A.
- <u>Black Mountain Open Space Park</u> Black Mountain Open Space Park is owned and managed by the City of San Diego. It consists of a series of chaparral and sage covered hills, ridges, and canyons. It is located in the Rancho Peñasquitos area of northern San Diego, situated between Camino Del Sur to the west, Peñasquitos Drive to the east, Lusardi Creek to the north and Carmel Mountain Road to the south. The park currently consists of a 2,352-acre area, and there are plans for possible future expansion (City of San Diego, 2013d). The Proposed Project Segment A crosses the western portion of this park within roughly the northernmost 1.40 miles of the alignment. Also, this open space park is located to the north of the Proposed Project Segment B , for approximately 0.98 mile (along the northeastern portion of Segment B), and is located to the south of the Proposed Project Segment B).
- <u>Hilltop Community Park</u> This is a City of San Diego park that is located approximately 176 feet to the west and southwest of the Proposed Project Segment A. This park is located along at 9711 Oviedo Way, San Diego, California 92129, in the Rancho Peñasquitos community (City of San Diego, 2013e).
- <u>Black Mountain Ranch Community Park</u> This community park is part of the Black Mountain Open Space Park, and consists of a community center with basketball courts, picnic areas, and a large recreational field (City of San Diego, 2013d). This park is located at the east end of Proposed Project Segment B (Carmel Valley Road). A new cable pole is proposed to be installed within the park (Structure No. P41) that would replace existing Structure No. R47. The underground transmission line (Segment B) would connect from the median in Carmel Valley Road to the new cable pole on the

north side of Carmel Valley Road utilizing the access driveway to the park, and an access vault would be installed near the park entrance. Additionally, approximately 0.25 acre within the park would be used temporarily as a stringing site.

- <u>Cypress Canyon Neighborhood Park</u> Located along at the corner of Cypress Canyon Road and Cypress Canyon Park Drive approximately 850 feet south of the Proposed Project Segment A. This park includes baseball fields, a basketball court and other park facilities.
- <u>Butterfly Gardens Mini Park</u> Located along Cypress Canyon Road south of Scripps Poway Pkwy approximately 200 feet southwest of the Proposed Project Segment A. The park includes walking paths and the Scripps Ranch Community Center that is utilized for community meetings.
- <u>Scripps Ranch Community Park and Recreation Center</u> Located along Cypress Canyon Road and Blue Cypress Drive approximately 1250 feet southwest of the Proposed Project Segment A. The park is located adjacent to the Ellen Browning Scripps Elementary School and includes a recreation center, baseball fields, and walking paths.
- <u>Del Mar Mesa Preserve</u> The 900-acre Del Mar Mesa Preserve lies on the east end of Del Mar Mesa. It is protected under the City's Multiple Species Habitat Plan. Parts of the Preserve are under State and Federal jurisdiction. This preserve includes habitat for dozens of endangered and threatened species of plants and animals unique to San Diego and includes many vernal pool complexes. The Preserve is contiguous to Los Peñasquitos Canyon and the City of San Diego Parks Department is currently processing a Habitat and Trail Management Plan for the area (Friends of Del Mar Mesa, 2013). The Proposed Project Segments C and D cross through the central portion of the Del Mar Mesa Preserve. The southern portion of the Proposed Project Segment C crosses the northern-central portion of the preserve for roughly 1.13 miles, and the north-eastern portion of the preserve for roughly 1.39 miles.
- Los Peñasquitos Canyon Preserve Los Peñasquitos Canyon Preserve is located between Rancho Peñasquitos and Sorrento Hills to the north and Mira Mesa to the south. Stretching approximately seven miles from I-5 and Interstate-805 (I-805) merge to just east of I-15; it encompasses some 4,000 acres of both Peñasquitos and Lopez Canyons. The Preserve is jointly owned and administered by the City and County of San Diego. This preserve is characterized by varied natural resources, including important plant/habitat communities, abundant wildlife, and many protected plant and wildlife species. The Preserve also contains important pre-historic and historic sites (City of San Diego, 2013f). The Proposed Project Segment D ROW forms the northern boundary of the Los Peñasquitos Canyon Preserve for roughly 1.31 miles along the western-central portion of the Preserve.
- <u>Torrey Hills Dog Park</u> This dog park is owned and operated by the Torrey Hills Center (Vons shopping center), and is also known as the Dirty Dogs Dog Park. It is approximately 2 acres in size, located at 4627 Carmel Mountain Road, San Diego, California (San Diego Travels, 2013). The Proposed Project Segment D (southwestern-most portion) runs directly through this dog park (for a length of approximately 465 feet), with existing overhead electrical transmission lines spanning directly overhead.

- <u>Torrey Del Mar Neighborhood Park</u> This neighborhood park is located at the southwest corner of Torrey Del Mar Drive and Kerry Lane. The Proposed Project Segment B is located approximately 750 feet north of the park. The park consists of a small recreational field, picnic area, and a half of basketball court.
- <u>Torrey Hills Neighborhood Park</u> This neighborhood park is located off Calle Mejillones and lies directly adjacent to the Peñasquitos Substation, approximately 415 feet to the west. The park is separated from the substation by a small strip of open space and consists of a recreation area, baseball fields, tennis court and a picnic area.

#### **Other Public Facilities**

There are no public libraries within 0.25 mile of the Proposed Project area. The closest public library to the Proposed Project area is the Rancho Peñasquitos Friends of the Library (13330 Salmon River Road, San Diego, California 92129), which is located approximately 0.62 mile to the west of the Proposed Project Segment A. There are two medical facilities in close proximity to the Proposed Project. The MD Today Urgent Care (10605 Scripps Poway Parkway, San Diego, California 92131) is located within a shopping center at the intersection of Scripps Poway Parkway and Spring Canyon Road. This urgent care facility is approximately 442 feet south of the Proposed Project Segment A. Also, the Proposed Project Segment A existing ROW crosses the parking lot of the Sharp Rees-Steely Scripps Ranch Medical Center (10670 Wexford Street, San Diego, California 92131). The Proposed Project Segment A would be located approximately 56 feet to the west of this medical center building.

See Section 4.13, Recreation, for a discussion of hiking and mountain biking trails, equestrian trails, bicycle/pedestrian paths, and golf courses.

#### 4.12.4 Potential Impacts

#### 4.12.4.1 <u>Significance Criteria</u>

Standards of impact significance were derived from Appendix G of the *CEQA Guidelines*. Under these guidelines, the Proposed Project could have a potentially significant impact to public services if it would:

- a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
  - i. Fire protection;
  - ii. Police protection;
  - iii. Schools;
  - iv. Parks;
  - v. Other public facilities.

#### 4.12.4.2 <u>Question 12a (i & ii) – Impacts to fire and police protection?</u>

#### **Construction – Less Than Significant Impact**

No emergency service providers are located within 0.25 mile of the Proposed Project ROW. Construction of the Proposed Project would not result in significant temporary increases in local population, since it would be short-term and would not include any new facilities that would require new or expanded fire protection services.

Construction activities associated with the Proposed Project would not unduly burden local fire or police services. At the completion of each work day, construction crews will lock up and secure each worksite to prevent theft or vandalism associated with work equipment or supplies. SDG&E will also implement its project-specific fire plan, which will include private fire patrol monitoring as appropriate. Furthermore, SDG&E may have private security personnel monitoring construction sites where materials are stored, which may include the substations, staging yards and ROW.

As discussed in Section 4.14, Traffic and Transportation, traffic control measures associated with underground construction (within Carmel Valley Road) would be implemented pursuant to all applicable industry standards and applicable local jurisdictional agency review. Along the underground segments of the Proposed Project (within Carmel Valley Road franchise position), SDG&E would coordinate with the appropriate emergency (fire and police) personnel prior to construction to ensure that construction activities and associated lane closures would not substantially affect emergency response vehicles (refer to Section 4.14, Traffic and Transportation and APM TR-1). Additionally, all streets would remain open to vehicular circulation during construction of the underground segments of the Proposed Project. Therefore, the Proposed Project would result in a less than significant impact to fire and police protection services during construction.

#### **Operation & Maintenance – No Impact**

SDG&E currently maintains and operates existing electric transmission, power, distribution, and substation facilities throughout the Proposed Project site (with the exception of the Proposed Project Segment B, within Carmel Valley Road), and the Proposed Project is the construction of a new transmission line, the consolidation of two existing 230 kV transmission lines onto existing steel structures, and the replacement of existing wood structures, all within existing SDG&E ROW and substation property. SDG&E's existing facilities and operations and maintenance activities are included in the baseline for evaluating the impacts of the Proposed Project. Operations and maintenance activities for the Proposed Project would not change much from existing activities and would not require hiring any new workers or result in the need for additional police or fire services. The Proposed Project, once operational, would reduce the risk of fire in the area and would, therefore, result in a reduction in potential need for local fire protection services. This is because many wooden structures would be replaced and fire hardened with steel structures (which do not pose the same fire danger as wooden structures). Therefore, no adverse impacts relating to fire or police protection services would result.

#### 4.12.4.3 <u>Question 12a (iii) – Impacts to schools?</u>

#### **Construction – Less Than Significant Impact**

There are seven schools within close proximity to the Proposed Project area. The closest school to the Proposed Project ROW is the Kids Bay Learning Center, which is located approximately 187 feet north of the Proposed Project Segment B underground transmission line (within Carmel Valley Road). The Proposed Project Segment A is located approximately 143 feet to the east of the Mount Carmel High School at the edge of the school property (football stadium). However, the actual classrooms of this school are approximately 0.20 mile from the Proposed Project Segment A. The Innovations Academy is approximately 572 feet from the edge of the Proposed Project Segment A; however, it would be 463 feet to the closest classroom building. The Dingeman Elementary School (both the property edge and closest classroom building) is located approximately 742 feet from the Proposed Project Segment A. The Cambridge School is located approximately 1093 feet from the Proposed Project Segment A; however, it would be 586 feet to the closest classroom building. The Proposed Project Segment A would be located approximately 1170 feet to the north of the Ellen Browning Scripps Elementary School, and approximately 1,007 feet north of the closest classroom building. The Peñasquitos Substation is located approximately 950 feet to the northwest of the Torrey Hills School and approximately 970 feet northwest of the closest classroom building.

The Proposed Project would not significantly affect school enrollment since construction of the Proposed Project is short-term. The volume of construction workers would be minimal relative to the local population and it is anticipated that temporary construction workers would not generate new students for the area's schools.

School traffic at Dingeman Elementary and the Innovations Academy would be impacted during construction because construction vehicles would use Scripps Poway Parkway for access to the Proposed Project ROW. Also, when Proposed Project Segment B construction is occurring, access along Carmel Valley Road would be impacted for the Kids Learning Bay Center. Specific traffic-related impacts are discussed within Section 4.14, Traffic and Transportation.

However, the seven schools that are located near the Proposed Project ROW would also experience increased levels of noise, traffic, and dust due to construction vehicles and activities during the construction period. Noise impacts are discussed in Section 4.10, Traffic impacts are discussed in Section 4.14, and Air Quality impacts are discussed in Section 4.3. However, because construction will be temporary and short term, impacts would be less than significant.

No new or physically altered schools would be necessary as a result of the Proposed Project. Therefore, the Proposed Project would result in a less than significant impact to schools during construction of the Proposed Project.

#### **Operation & Maintenance – No Impact**

Operation and maintenance for the Proposed Project would not change significantly from the current operations and maintenance of the existing transmission line and substation facilities. The Proposed Project would not cause any substantial change to the assigned operations and maintenance staff and their current activities. Because there would be no change to staffing levels related to operations and maintenance activities, and there would not be a resulting

noticeable change in population (that is attributable to the Proposed Project), there would not be an impact on school enrollment and the Proposed Project would not contribute to any need to expand or replace existing schools, or build new schools. No impacts to schools would result from operation and maintenance of the Proposed Project.

#### 4.12.4.4 Question 12a (iv) – Impacts to parks?

#### **Construction – Less Than Significant Impact with Incorporation of APMs**

Possible construction-phase impacts to parks that are located within close proximity to the Proposed Project are discussed in this section. The Proposed Project would cause some temporary and intermittent construction-phase impacts, relating to restricted access, for some of these parks.

- Spring Canyon Neighborhood Park
- Rancho Peñasquitos Skate Park
- Black Mountain Open Space Park
- Hilltop Community Park
- Black Mountain Ranch Community Park
- Cypress Canyon Neighborhood Park
- Butterfly Gardens Mini Park
- Del Mar Mesa Open Space
- Los Peñasquitos Canyon Preserve
- Torrey Del Mar Neighborhood Park
- Torrey Hills Neighborhood Park
- Torrey Hills Dog Park

While some access to the above-listed parks would be limited or restricted during some of the construction activities, the construction of the Proposed Project would not directly increase the demand for the local public park system as construction activities would be short-term and would not substantially increase the local populations (refer to Section 4.11). Restricted access to some existing parks may indirectly cause increased demand for other local, non-restricted public parks. Due to the quantity of parks in the Proposed Project area and relatively short duration of the Proposed Project's construction within local parks, however, these impacts would be less than significant.

Direct impacts associated with the restricted access to parks and other recreational facilities during construction of the Proposed Project are discussed below.

#### Public Parks

Construction activities would occur in three public parks: Black Mountain Open Space Park, Black Mountain Ranch Community Park, and the Del Mar Mesa Preserve. Additionally, the

Proposed Project ROW forms the northern boundary of the Los Peñasquitos Canyon Preserve. Impacts at each of these parks are discussed below, and the other nearby parks are described.

#### Spring Canyon Neighborhood Park

The Spring Canyon neighborhood public park is located approximately 294 feet south of the Proposed Project Segment A. Access to this park would not be restricted during construction.

#### Rancho Peñasquitos Skate Park

The Rancho Peñasquitos\_skate park is located approximately 259 feet to the east of the Proposed Project Segment A. Access to this park would not be restricted during construction.

#### Black Mountain Open Space Park

The ROW for Proposed Project Segment A crosses along the western portion of the Black Mountain Open Space Park in an area near the base of Black Mountain and in an area that is near residential neighborhoods, schools, and parks of the community of Rancho Peñasquitos. The Proposed Project Segment A crosses the western portion of this park within roughly the northernmost 1.40 miles of the alignment. Also, this open space park is located to the north of the Proposed Project Segment B , for approximately 0.98 mile (along the northeastern portion of Segment B), and is located to the south of the Proposed Project Segment B will be located to the northeastern portion of Segment B). However, because Segment B will be located entirely within franchise position (underground) within Carmel Valley Road, Segment B will have no permanent effect relating to this portion of the open space park. All transmission line facilities being constructed would be located within the existing SDG&E ROW. During construction, relatively minor, intermittent, and temporary disruption to access would occur at some trails and/or trailheads within the western and southwestern portions of the Black Mountain Open Space Park. See Section 4.12.6 for APMs.

#### Hilltop Community Park

The Hilltop Community Park is located approximately 176 feet to the west and southwest of the Proposed Project Segment A. During construction, there would be some minor and temporary disruption to access to this park. Also, because there are some trails into the Black Mountain Open Space Park that originate at the Hilltop Community Park, there would be some minor and temporary disruption to access to these trails during construction. See Section 4.12.6 for APMs.

#### Black Mountain Ranch Community Park

The east end of Proposed Project Segment B would be located within the Black Mountain Ranch Community Park. A portion of this park within the immediate construction area would be closed temporarily for safety reasons during construction. Additionally, some hiking and mountain biking trails for the Black Mountain Open Space Park begin at the Black Mountain Ranch Community Park. For this reason, some temporary disruption to access to these trails would occur in this area during construction.

#### Cypress Canyon Neighborhood Park

The Cypress Canyon neighborhood park is located approximately 850 feet south of the Proposed Project Segment A. Access to this park would not be restricted during construction.

#### Butterfly Gardens Mini Park

The Butterfly Gardens Mini Park is located approximately 200 feet southwest of the Proposed Project Segment A. Access to this park would not be restricted during construction.

#### Del Mar Mesa Preserve

The Proposed Project Segments C and D 230 kV transmission line facilities cross through the central portion of the Del Mar Mesa Preserve. The southern portion of the Proposed Project Segment C crosses the northern-central portion of the preserve for roughly 1.13 miles, and the north-eastern portion of the Proposed Project Segment D crosses the central and central-southwestern portion of the preserve for roughly 1.39 miles. All transmission and power line facilities being constructed would be located within the existing SDG&E ROW. During construction, some trails and other access locations for the Del Mar Mesa Preserve would be temporarily restricted. See Section 4.12.6 for APMs.

#### Los Peñasquitos Canyon Preserve

The Proposed Project Segment D forms the northern boundary of the Los Peñasquitos Canyon Preserve for roughly 1.3 miles along the western-central portion of the preserve. All transmission line facilities being constructed would be located within the existing SDG&E ROW. During construction, some trails and other access locations for the Los Peñasquitos Canyon Preserve would be temporarily restricted, particularly trails from the north and northwest that connect the communities of Torrey Hills Carmel Valley and Del Mar Mesa to the preserve. See Section 4.12.6 for APMs.

#### Torrey Del Mar Neighborhood Park

The Torrey Del Mar neighborhood park is located approximately 750 feet south the Proposed Project Segment B. Access to this park would not be restricted during construction, as appropriate traffic measures will be implemented along Carmel Valley Road to protect such access to this park and the neighboring residential development.

#### Torrey Hills Neighborhood Park

The Torrey Hills neighborhood park is located approximately 415 feet to the west of the Peñasquitos Substation. Access to this park is off Calle Mejillones, which is not connected to the main access to the Peñasquitos Substation off East Ocean Air Drive. As such, access to this park would not be restricted during construction.

#### Private Recreational Areas

#### Torrey Hills Dog Park

The western portion of the Proposed Project Segment D ROW crosses directly over the Torrey Hills Dog Park. All transmission line facilities being constructed would be located within the existing SDG&E ROW. During construction activities within or over the park, this park would be temporarily closed to the public for safety reasons. See Section 4.12.6 for APMs.

With the implementation of the APMs described in Section 4.12.6, impacts to parks during construction of the Proposed Project would be less than significant.

#### **Operation & Maintenance – No Impact**

SDG&E currently maintains and operates extensive existing electric transmission, power, distribution and substation facilities throughout the Proposed Project ROW (with the exception of Proposed Project Segment B, within Carmel Valley Road). SDG&E's existing operations and maintenance activities constitute the baseline against which the impacts of the Proposed Project are evaluated.

Operations and maintenance activities for the Proposed Project would not materially increase in frequency or intensity. Because no new workers are being added for operation and maintenance, the Proposed Project would not create any increased demand on the local public park system. Therefore, no new or expanded parks would be required in order to meet existing demand. Therefore, no impacts to parks would result from operation and maintenance of the Proposed Project.

The Proposed Project does not require the construction of any new public parks, and therefore would not create any adverse impacts associated with the construction of new parks.

SDG&E maintenance activities within existing recreation areas and parks would be anticipated to be equal or less than existing once the Proposed Project is complete and under operating conditions. The Proposed Project involves the installation of new steel structures (a net reduction of 10 structures) that would predominantly replace existing wood structures. Newer, steel structures require less maintenance than older, wood structures, thus resulting in equal or lesser operation and maintenance activities when compared to existing conditions. No impacts are anticipated.

#### 4.12.4.5 <u>Question 12a(v) – Impacts to other public facilities (hospitals/libraries)?</u>

#### **Construction and Operation & Maintenance – No Impact**

No additional need for hospitals, libraries or other government or public services would be required as a result of the Proposed Project. The Proposed Project neither increases the demand for, nor alters the level of, local public services required because it would not measurably increase local population or housing opportunities and/or requirements. Therefore, the Proposed Project would not create a need for new hospitals, libraries or other public services and there would be no impacts in this regard.

#### **Operation & Maintenance – No Impact**

No additional need for hospitals, libraries or other government or public services would be required as a result of the Proposed Project. The Proposed Project neither increases the demand for, nor alters the level of, local public services required because it would not measurably increase local population or housing opportunities and/or requirements. Therefore, the Proposed Project would not create a need for new hospitals, libraries or other public services and there would be no impacts in this regard.

#### 4.12.5 Project Design Features and Ordinary Construction/Operating Restrictions

SDG&E will implement the project design features and ordinary construction restrictions outlined in Section 3.8. Project design features relating specifically to recreation and recreational facilities are listed below.

- **Coordination and measures within parks and preserves.** Appropriate safety measures will be implemented where trails and parks are located in close proximity to construction areas to provide a safety buffer between recreational users and construction areas. Construction schedule and activities will be coordinated with the authorized officer for each affected recreation area.
- **Temporary trail detours.** Where feasible, temporary detours will be provided for trail users. Signs will be provided to direct trail users to the temporary trail detours.

#### 4.12.6 Applicant Proposed Measures

In order to minimize potential impacts to parks, trails, and recreational facilities located within the Proposed Project ROW, the following APMs are being proposed:

**PS-1** Where construction within existing public parks, preserves, and open space areas would not completely restrict access through these areas, and where necessary, SDG&E will create temporary foot and bicycle paths along with appropriate advanced notice and signage to direct and allow for the pedestrian and bicycle access through each affected park.

**PS-2** 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-3** All construction activities will be coordinated with the authorized officer for each affected park, trail, or recreational facility prior to construction in these areas.

**PS-4** 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-5** 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 Proposed Project. SDG&E will replace or repair any damaged or removed public equipment, facilities, and infrastructure in a timely manner.

#### 4.12.7 Detailed Discussion of Significant Impacts

The Proposed Project would not cause any significant impacts relating to public facilities.

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Would the project:		Potentially Significant Impact	Potentially Significant Unless APMs Incorporated	Less than Significant Impact	No Impact
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?			Ø	
b.	Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				Ŋ

## 4.13 RECREATION

#### 4.13.1 Introduction

This section of the PEA describes the existing conditions and potential project-related impacts to recreational areas as a result of short- or long-term conditions associated with the implementation of the Proposed Project. In addition, this section analyzes consistency with any applicable recreational plans or policies. A recreation area is defined herein as any site or facility that is used for recreational activities, including national, state, county, city, or private parks, bicycle paths, or trails; open space preserves; cultural centers or museums; campgrounds; or private recreational sites such as golf courses, amusement parks, or amphitheaters. The Proposed Project is not anticipated to increase the use of parks and recreational facilities such that substantial deterioration would occur, nor would it require the construction or expansion of recreational facilities. Impacts to recreational facilities from construction of the Proposed Project are included within Section 4.12, Public Services.

#### 4.13.2 Methodology

The recreation analysis involved a review of various documents, including aerial photographs of the Proposed Project area, the *City of Poway General Plan*, *City of San Diego General Plan*, and other relevant government planning documents and online information sources to identify potential recreational resources within the Proposed Project area. The review also included the use of GIS data.

## 4.13.3 Existing Conditions

## 4.13.3.1 <u>Regulatory Setting</u>

## Local

## City of Poway General Plan

The following City of Poway General Plan policy is potentially relevant regarding recreation.

**Policy A – Parks.** A diversified, comprehensive park system should be provided for the residents of Poway, utilizing adopted standards, contemporary concepts and planning strategies.

## City of San Diego General Plan

The following *City of San Diego General Plan* goals and policies are potentially relevant regarding recreation. Community plans are written to refine the general plan's citywide policies and are part of the general plan.

## Recreation Element

**Park and Recreation Guidelines Goal.** A sustainable park and recreation system that meets the needs of residents and visitors.

**Policy RE-A.3.** Take advantage of recreational opportunities presented by the natural environment, in particular beach/ocean access and open space.

Accessibility Goal. Provision of an inter-connected park and open space system that is integrated into and accessible to the community.

**Policy RE-D.6.** (1) Provide safe and convenient linkages to, and within, park and recreation facilities and open space; and (2) Improve public access through development of, and improvements to, multi-use trails within urban canyons and other open space areas.

**Policy RE-E.6.** Use underutilized or unnecessary City ROW and utility easements to help meet recreational needs, where appropriate.

**Open Space Lands and Resource-Based Parks Goal.** Preservation of the natural terrain and drainage systems of San Diego's open space lands and resource-based parks.

**Policy RE-F.1.** Protect and enhance park lands from adjacent incompatible uses and encroachments.

Policy RE-F.4. Balance passive recreation needs of trail use with environmental preservation.

**Policy RE-F.5.** Utilize open space lands for outdoor recreation purposes, when doing so is compatible with cultural, historic preservation, and MSCP conservation goals and surrounding land uses, including, but not limited to:

• Corridors that link recreation facilities and open space areas such as utility easements, river and stream corridors, trails, and scenic highway corridors.

**Policy RE-F.7.** (1) Create or enhance open space multi-use trails to accommodate, where appropriate, pedestrians/hikers, bicyclists, and equestrians; and (2) Locate canyon and other open space trails to take advantage of existing pathways and maintenance easements where possible and appropriate.

#### **Open Space Element**

**Open Space and Landform Preservation Goal.** Preservation and long-term management of the natural landforms and open spaces that help make San Diego unique.

**Policy CE-B.1.** Protect and conserve the landforms, canyon lands, and open spaces that define the City's urban form; provide public views/vistas; serve as core biological areas and wildlife linkages; are wetland habitats; provide buffers within and between communities; or provide outdoor recreational opportunities.

#### Rancho Encantada Precise Plan

The Rancho Encantada Precise Plan contains the following potentially applicable policy:

• All utilities should be designed to avoid or minimize intrusion into the MHPA.

## Scripps Miramar Ranch Community Plan

The Scripps Miramar Ranch Community Plan contains the following potentially applicable policy:

- The 200-foot SDG&E easement which traverses the northeastern portion of the Scripps Ranch should serve as an open space connector and passive park. Although there are strict limits on the types of construction and vegetation allowed in the easement, this plan advocates the following treatments:
  - Where the easement traverses natural areas slated for preservation, those areas should remain unchanged.
  - Where grading or roads occur in the easement, the graded area should be revegetated with low-lying groundcover which will not impede access to transmission lines. At the edge of the easement, transitional plantings such as native chapparal species, shrubs and eucalyptus species shall be provided in order to buffer the open space connector from adjacent development while still providing view into the open space.
  - The proposed improved open space shown in the northeastern portion of the Community Plan Area under the easement should be treated in such a manner as to meet SDG&E requirements, and yet still provide a grassy-type area for passive recreation uses.

#### Miramar Ranch North Community Plan

The Miramar Ranch North Community Plan contains the following potentially applicable policy:

• The planning area is crossed by a 200-foot wide power easement which currently contains 230 kV and 138 kV transmission and power lines. The easement is planned to accommodate twice its current capacity and will be developed as system loads dictate. Land uses within the easement, such as parking, open space, and trails, may be permitted subject to satisfying liability agreements.

## Sabre Springs Community Plan

The Sabre Springs Community Plan contains the following potentially applicable policy:

• Provision of access corridors to the creeks for fauna including the power easement corridor and the neighborhood park in Sabre Springs North and an extensive area in open space along Peñasquitos Creek in Sabre Springs South.

#### City of San Diego Multiple Species Conservation Program

The MSCP is a comprehensive, long-term habitat conservation planning program that covers approximately 900 square miles in southwestern San Diego County pursuant to the ESA and CESA and the California NCCP Act. It has been developed cooperatively by participating jurisdictions/special districts in partnership with federal/state wildlife agencies, property owners, and representatives of the development industry and environmental groups. The MSCP is designed to preserve native habitat for multiple species, which is accomplished by identifying areas for directed development and areas to be conserved in perpetuity. The MHPA is the City's planned habitat preserve within the MSCP Subarea. Public access is allowed in many areas of the MHPA consistent with species protection and habitat management. Trails (biking, hiking, and/or equestrian uses), passive recreation, bird watching, scientific research, and nature walks are examples of allowable uses in the MHPA that provide opportunities for the public to access. Refer to Section 4.9, Land Use and Planning for more information regarding the MSCP and the MHPA.

#### Draft Black Mountain Open Space Park Natural Resources Management Plan

The Draft Natural Resources Management Plan provides for protection, enhancement, and management of the natural resources within Black Mountain Open Space Park. Among other issues, management of the Park must address the presence of utility structures and facilities requiring maintenance and expansion. The plan outlines numerous activities potentially applicable to utilities, including those operated by SDG&E. Below are some of the key guidelines for SDG&E facilities:

All utility projects and maintenance within the park shall adhere to the following guidelines:

• SDG&E shall conduct all operations within the Park according to "Operational Protocols" outlined in the *SDG&E Subregional NCCP*. This *NCCP* serves as a permit with USFWS and CDFW and meets the requirements for the federal and state ESAs.

- All SDG&E work crews should undergo training programs to make crews alert to the sensitivity of the habitats in which they are working. Crews should be routinely trained and advised on how to minimize environmental impacts during maintenance activities.
- All construction and maintenance activities should use BMPs for erosion control at construction/work sites and should provide for park user safety, such as temporary signs and/or barricades.
- Maintenance activities should be coordinated with a Park Ranger. If activities will result in impacts to resources, the Park Ranger will notify the City of San Diego Park and Recreation Natural Resource Manager. Notification of appropriate City of San Diego personnel should also occur as soon as possible when emergency action is required.
- Erosion on access roads will be minimized using appropriate measures, such as water bars.
- For all grading work, dust will be controlled with regular watering.
- Mowing, rather than grading, should be the method of vegetation removal if needed to eliminate/reduce fire hazard, to provide safe access, or to improve view of utility facility.

## Los Peñasquitos Canyon Preserve Master Plan

Los Peñasquitos Canyon Preserve is not part of the City of San Diego's active recreation system of neighborhood and community parks; rather it is classified in the *City of San Diego General Plan* as a resource-based park. The purpose of the Preserve is to save the last relatively untouched coastal canyon in the City of San Diego. The Preserve's resources are considered to be of regional importance. The following recommendations summarize the development, management, and implementation proposals for the Preserve:

**General Concept 1.** The primary objective of Los Peñasquitos Canyon Preserve should be the preservation and enhancement of its natural and cultural resources. Recreational and educational use by the public should be the secondary objective.

**General Concept 2.** Development should be consistent with these objectives, with care taken that public use should not endanger the qualities that make the Preserve unique.

**Long-Range Management 1.** The goals of long-range Preserve management should be to maintain and enhance the quality of the environment and to provide for public enjoyment, safety, and education.

**Long-Range Management 4.** Rules and regulations should be strictly enforced, with particular emphasis on environmental preservation and vehicle and fire control.

## 4.13.3.2 Public Parks and Recreation Areas

The Proposed Project ROW either crosses or is located in the close vicinity of several public parks and recreation areas. Public parks include neighborhood and community parks. Typically a minimum of 10 acres, the facilities at neighborhood parks include picnic areas, a tot lot, multipurpose courts, and open turf areas. The facilities at community parks are essentially the same as

at neighborhood parks, with the addition of a lighted multipurpose sports field and recreation center building. Community parks are typically a minimum of 20 acres. Refer to Section 4.12, Public Services for more detail about each nearby park and recreation area.

A number of parks are in close proximity to the Proposed Project (within 0.25 mile). Spring Canyon Neighborhood Park, located along Scripps Poway Parkway in the Miramar Ranch North Community, is approximately 300 feet south of and across the street from the Proposed Project Segment A ROW (Sycamore Canyon Substation to Carmel Valley Road). This park includes baseball fields and other park facilities. The 22,000-square-foot Rancho Peñasquitos Skate Park, owned and operated by the City of San Diego Parks and Recreation Department, consists of a mix of wood and concrete structures, ramps, and other skateboarding terrain. This skate park is located approximately 260 feet to the east of the Proposed Project Segment A ROW in the Rancho Peñasquitos community of San Diego. Hilltop Community Park is a City of San Diego park in the Rancho Peñasquitos community that is located approximately 50 feet to the west and southwest of the Proposed Project Segment A ROW.

The east end of Proposed Project Segment B (Carmel Valley Road) would be located within Black Mountain Ranch Community Park, a sports and recreation facility that consists of multipurpose athletic fields, where a new cable pole is proposed to be installed (Structure No. P41). The underground transmission line (Segment B) would connect from the median in Carmel Valley Road to a pole on the south side of Carmel Valley Road utilizing the access driveway to the park, and an access vault would be installed near the park entrance. Additionally, approximately 0.25 acre within the park would be used temporarily as a stringing site.

There is an existing Class I bike path within SR-56 ROW, along the south side of the freeway between I-5 and I-15. The Proposed Project Segment A and C ROWs (Carmel Valley Road to Peñasquitos Junction) cross over the bike path.

The 2-acre Torrey Hills Dog Park, located in the Torrey Hills community, is owned and operated by the Torrey Hills Center (Vons shopping center). The Segment D ROW (Peñasquitos Junction to Peñasquitos Substation) of the Proposed Project runs directly through this dog park, with existing overhead electrical transmission lines spanning directly overhead.

The Proposed Project passes within 0.25 mile of several other public parks and recreation areas. Cypress Canyon Neighborhood Park, Scripps Ranch Community Park and Recreation Center, and Butterfly Gardens Mini Park are in the vicinity of the Proposed Project Segment A ROW; Torrey Del Mar Neighborhood Park is near Segment B; and Torrey Hills Neighborhood Park is near the Peñasquitos Substation. Additional information on these parks listed herein can be found in Section 4.12.3.1 and all parks within 1.0 mile of the Proposed Project are shown in Table 4.3-6, Locations that May Include Sensitive Receptors.

## 4.13.3.3 **Open Space and Preserves**

A portion of the Proposed Project Segment A ROW of the Proposed Project runs through the Black Mountain Open Space Park along its western edge. Black Mountain Open Space Park is owned and managed by the City of San Diego and consists of a series of chaparral and sage-covered hills, ridges, and canyons. There are plans for a possible expansion of the 2,352-acre

park. Current passive recreational uses within the park include hiking, bird watching, gliding and paragliding, biking, and equestrian use on trails designated for each activity. The park's centerpiece is the 1,554-foot summit of Black Mountain, which provides 360-degree views of the area. The SDG&E access road along the ROW through the open space park is used as a trail, and the ROW crosses over several smaller trails, as well as the Black Mountain service road.

The 900-acre Del Mar Mesa Preserve is located on the east end of Del Mar Mesa. Parts of the Preserve are under state and federal jurisdiction. The Preserve is contiguous to Los Peñasquitos Canyon and serves as a critical animal migration corridor. The City Parks Department is currently processing a Habitat & Trail Management Plan for the area. The southern portion of the Proposed Project Segment C ROW, covering a distance of roughly 1 mile, crosses through the Del Mar Mesa Preserve. Many of the hiking/mountain biking trails within the Del Mar Mesa Preserve are currently closed to protect the natural features that are contained there. Approximately 1.5 miles of the northeastern portion of the Proposed Project Segment D ROW crosses through the center of the Del Mar Mesa Preserve.

The Los Peñasquitos Canyon Preserve encompasses approximately 3,000 acres of both Peñasquitos and Lopez canyons. The preserve is jointly owned and administered by the City and County of San Diego. The purpose of this preserve is to protect its varied natural resources, including important plant/habitat communities, many protected plant and wildlife species, and important pre-historic and historic sites. The preserve includes a trail system for hikers, bikers, and equestrian activity. A portion of the Proposed Project Segment D ROW forms the northern border of the Los Peñasquitos Canyon Preserve. Within this area, the Segment D ROW is located on the hillsides to the north of the Los Peñasquitos Canyon.

Much of the Proposed Project ROW runs within and adjacent to open space/vacant land. Along the Proposed Project Segment A ROW, many of the open space/vacant parcels along this corridor are canyon areas and have been designated by the City of San Diego as part of the MHPA. Immediately south of the Poway Road/I-15 interchange, Segment A crosses over Cypress Canyon, which consists of vacant/open space land (with hike and bike trails) and is designated as MHPA land. Along the western half of the Proposed Project Segment B ROW from Camino Del Sur to its end point, there are large tracts of vacant/open space land included in the MHPA (on both sides of the road), including McGonigle Canyon. The northern portion of the Proposed Project Segment C ROW traverses an area that is primarily characterized by vacant/open space land and land that is designated as MHPA. South of SR-56, this open space includes many dirt trails used by mountain bikers and hikers. One relatively significant trail is the McGonigle Canyon Trail, which crosses the Segment B ROW (trail runs in a northeast to southwest direction across the ROW) through part of the MHPA land. The portion of the Proposed Project Segment D ROW that forms the northern border of the Los Peñasquitos Canyon Preserve is located within the MHPA. Within the vicinity of the Segment D ROW there are numerous hiking/mountain biking trails that lead into the Los Peñasquitos Canyon Preserve, the Del Mar Mesa Preserve, and other nearby areas within the MHPA lands.

## 4.13.3.4 <u>Golf Clubs</u>

The Grand Golf Club is a part of the Grand Del Mar hotel resort and is located approximately 0.25 mile northwest of Segment D. Additionally, there are three golf clubs within one mile of

Segment B including the Santa Luz Club (approximately 0.4 mile to the northwest), The Farms Gold Club (approximately one mile to the north), and the Del Mar Country Club (approximately 0.9 mile to the northwest).

## 4.13.4 Potential Impacts

## 4.13.4.1 <u>Significance Criteria</u>

Standards of impact significance were derived from Appendix G of the *California Environmental Quality Act Guidelines*. These guidelines note when a proposed project could have a potentially significant impact to recreation, as follows:

- 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; or
- 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.

#### 4.13.4.2 <u>Question 13a – Would the project increase the use of existing neighborhood and</u> regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

#### **Construction – Less than Significant Impact**

While some access to several recreational facilities and preserves would be temporarily restricted during construction, the construction of the Proposed Project would not directly increase the demand for the local public park system as construction activities would be short-term and would not substantially increase the local populations (refer to Section 4.12, Public Services, and Section 4.11, Population and Housing). As described more fully below, restricted access to some existing parks may indirectly cause increased demand for non-restricted public parks in the vicinity of the Proposed Project. However, due to the quantity of parks in the Proposed Project area, the relatively short duration of the Proposed Project's construction within local parks, and the construction schedule whereby it is likely that not all of the parks would be restricted simultaneously, these impacts would be negligible.

While direct impacts would occur to several parks and recreational facilities in the Proposed Project area during construction, with the implementation of Applicant Proposed Measures described in Section 4.12, Public Services, construction activities would not result in the increased use of these facilities such that substantial deterioration would occur. Direct impacts to the parks and recreational facilities that would be restricted during construction of the Proposed Project are summarized below and are discussed in more detail in Section 4.12, Public Services.

During construction it may be necessary to temporarily close off sections of trails to keep the public at safe distances from the construction area. SDG&E anticipates that the trails that would be temporarily closed would be those built by SDG&E as access roads that have over time come to be used or designated for use by the public as trails. Some of these trails in the open space canyon areas designated as part of the MHPA may be restricted along the length of the Proposed

Project ROW. Also, the Black Mountain Open Space Park and Hilltop Community Park along the Proposed Project Segment A ROW would have restricted access during construction. Portions of Black Mountain Ranch Community Park at the east end of the Proposed Project Segment B within the immediate construction area would be temporarily closed for safety reasons while construction occurred within the park. Additionally, the access driveway to the park would be closed to vehicular traffic during trenching; however, the park would remain open for use.

In the Proposed Project Segment C ROW, SDG&E may use guard structures and flaggers to temporarily hold traffic for brief periods of time while the overhead line is installed over the SR-56 bike trail. Trail access in the Del Mar Mesa Preserve in the vicinity of the Proposed Project Segment C and D ROW, as well as Los Peñasquitos Canyon Preserve in Segment D, would be restricted. Along the Segment D ROW, access to the Torrey Hills Dog Park, which is directly under the transmission line, would be closed temporarily during construction.

Though the temporary disruptions in the use of trails and parks may be an inconvenience to users of these trails, many other nearby public recreational options would remain available during the access restriction, as well as other portions of the Black Mountain Open Space Park, Del Mar Mesa Preserve, and Los Peñasquitos Canyon Preserve. SDG&E would implement the project design features and standard construction restrictions listed below in Section 4.13.5. In addition, APMs for direct impacts to parks, trails and recreation facilities are listed in Section 4.12, Public Services.

The Proposed Project would not increase the use of other existing recreational facilities in the vicinity such that physical deterioration would occur due to the quantity of existing local parks and the short construction duration; therefore, impacts would be less than significant.

## **Operation & Maintenance – No Impact**

As described in Section 4.11, Population and Housing, the Proposed Project would not create a need for additional housing or long-term population immigration that could result in permanent increased utilization of existing recreational facilities in the vicinity of the Proposed Project. No new employees would be hired to operate or maintain the Proposed Project facilities. The facilities would be operated and maintained by existing SDG&E personnel in the same manner that the existing facilities are currently operated and maintained. Thus, no impact would occur. In addition, SDG&E maintenance activities within existing recreation areas and parks would be anticipated to be equal or less than existing once the Proposed Project is complete and under operating conditions. The Proposed Project involves the installation of new steel structures (a net reduction of 10 structures) that would predominantly replace existing wood structures. Newer, steel structures require less maintenance than older, wood structures, thus resulting in equal or lesser operation and maintenance activities when compared to existing conditions. No impacts are anticipated.

#### 4.13.4.3 <u>Question 13b – Does the project include recreational facilities or require the</u> <u>construction or expansion of recreational facilities which might have an adverse</u> <u>physical effect on the environment?</u>

#### **Construction and Operation & Maintenance – No Impact**

The Proposed Project would replace and relocate existing electric transmission and power line facilities and add one new transmission line within existing transmission and power line corridors and franchise position within a City street. While access to some parks and preserves would be restricted during some of the construction activities, and construction activities would occur within the Black Mountain Ranch Community Park at the east end of Proposed Project Segment B, the Proposed Project does not involve construction or expansion of any recreational facilities, which might have an adverse physical effect on the environment; therefore, no impacts would occur.

#### 4.13.5 Project Design Features and Ordinary Construction/Operating Restrictions

Impacts relating to increased use of existing parks or other recreational facilities and the construction or expansion of recreational facilities would be less than significant. The proposed implementation of the project design features and ordinary construction restrictions related to recreation listed below (as outlined in Section 3.8) would help to further avoid and minimize environmental impacts.

- **Coordination and measures within parks and preserves**. Appropriate safety measures will be implemented where trails and parks are located in close proximity to construction areas to provide a safety buffer between recreational users and construction areas. Construction schedule and activities will be coordinated with the authorized officer for each affected recreation area.
- **Temporary trail detours.** Where feasible, temporary detours will be provided for trail users. Signs will be provided to direct trail users to the temporary trail detours.

#### 4.13.6 Applicant Proposed Measures

The Proposed Project would not result in significant impacts relating to increased use of nearby existing parks or other recreational facilities and the construction or expansion of recreational facilities. Therefore, no APMs are being proposed for these impacts. APMs for direct impacts to parks and recreational facilities from construction of the Proposed Project are included in Section 4.12, Public Services.

## 4.13.7 Detailed Discussion of Significant Impacts

Based on the preceding analysis, no significant impacts relating to increased use of nearby existing parks or other recreational facilities and the construction or expansion of recreational facilities are anticipated from the Proposed Project.

## 4.13.8 References

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- Friends of Del Mar Mesa. 2013. *Del Mar Mesa Preserve*. Online: <u>http://www.delmarmesa.org/del-mar-mesa-preserve.html</u>. Site visited on October 22, 2013.

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## 4.14 TRANSPORTATION AND TRAFFIC

Would	Would the project:		Potentially Significant Unless APMs Incorporated	Less than Significant Impact	No Impact
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?			V	
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?			Ŋ	
с.	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?			$\mathbf{\Sigma}$	
d.	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			Ŋ	
e.	Result in inadequate emergency access?		V		
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 supporting alternative transportation?			Ŋ	

#### 4.14.1 Introduction

This section of the PEA describes the existing conditions and potential short- and long-term project-related impacts to transportation and traffic.

Construction generated traffic would be minimal and limited in duration. Operation and maintenance traffic generation would be virtually the same as that of the existing facilities the Proposed Project would be altering or replacing, so the only material traffic impacts relating to traffic generation would be during construction.

A temporary impact has been identified where construction of the underground transmission line within Proposed Project Segment B (Carmel Valley Road) would cause temporary disruption of traffic and reduction in Level of Service (LOS) and emergency vehicle access during construction activities. However, implementation of project design features, adherence to

ordinary construction and operating restrictions, and implementation of APMs would ensure that impacts remain less than significant.

Operation and maintenance of Proposed Project Segment B (new underground transmission line) would require very infrequent access to underground splice vault locations, potentially resulting in short-term and less-than-significant disruption of traffic.

## 4.14.2 Methodology

Traffic and roadway data for this analysis was collected from online searches, aerial photos, and the Mobility Element of the *City of San Diego General Plan*. The study area includes roadways where construction activities would take place and where roadways would likely be used by project-related traffic, such as for access. Additional information was gathered during site visits and communications with engineering and planning staff of SDG&E. Existing approximate roadway LOS was obtained either from past analysis or planning documents or calculated using traffic count data and stated road capacities. Traffic count data was obtained from published spreadsheets compiled by the SANDAG. Road capacity values were obtained from the Final 2008 Congestion Management Program Update or the *City of San Diego Street Design Manual*.

Calculated LOS values were obtained by dividing the existing average daily traffic (ADT) by the roadway capacity to achieve the volume-to-capacity (v/c) value. LOS was then defined as outlined in Table 4.14-1, Level of Service Calculation Values.

Level of Service	Volume-to-Capacity	
А	0.0 to 0.60	
В	0.61 to 0.70	
С	0.71 to 0.80	
D	0.81 to 0.90	
Е	0.91-01.00	
F	Above 1.0	
Source: Highway Capacity Manual (1985)		

 Table 4.14-1: Level of Service Calculation Values

## 4.14.3 Existing Conditions

## 4.14.3.1 <u>Regulatory Setting</u>

Construction projects that cross public transportation corridors are subject to requirements for local and state agency encroachment permits. Use or obstruction of navigable air space also requires permits. The following summarizes transportation and traffic regulations that are applicable to the construction, operation and maintenance of electric facilities, such as the Proposed Project.

## Federal

All airports and navigable airspace not administered by the DOD are under the jurisdiction of the 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 to one (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 CAP for operating a helicopter within 1,500 feet of residential dwellings. All new overhead power line and transmission line structures located on MCAS Miramar require notice to the FAA. Notice to the FAA is also required as indicated in the *MCAS Miramar ALUCP* for proposed development 200 feet or more in height for all the communities within the MCAS Miramar AIA, and for any proposed development within Los Peñasquitos Canyon Preserve, Black Mountain Ranch, Rancho Peñasquitos, Miramar Ranch North, Scripps Miramar Ranch and Rancho Encantada.

## State

Caltrans has jurisdiction over the state's highway system and is responsible for protecting the public and infrastructure. The use of California state highways for other than normal transportation purposes may require written authorization or an encroachment permit from Caltrans. Caltrans reviews all requests from utility companies that plan to conduct activities within its ROW. Encroachment permits may include conditions or restrictions such as limits to when construction activities can occur within or above roadways under the jurisdiction of Caltrans.

## Local

## 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 the following key plans that relate to regional transportation infrastructure and planning:

- Regional Transportation Plan; and
- Congestion Management Program (CMP).

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 Regional Transportation Plan and CMP generally address large-scale transportation planning and projects and do not generally address small-scale construction project planning.

#### Congestion Management Program 2008 Update

The CMP Update (SANDAG, 2008) designates certain major roadways (freeways, highways, and primary arterials) for monitoring and corrective action. Within the Proposed Project area, the following are CMP system roadways:

- I-5 Freeway (CMP Freeway);
- I-15 Freeway (CMP Freeway);
- I-805 (CMP Freeway);
- SR-56 (CMP Freeway); and
- Scripps Poway Parkway (CMP Arterial).

Pursuant to the 2008 CMP Update, the LOS standard is that all CMP system roadways operate at a minimum of LOS E, unless the CMP designated roadway in question had a lower LOS when the CMP system was originally designated<sup>1</sup>. Any roadway segments that do not meet the minimum LOS standard are considered deficient and are subject to Deficiency Plan requirements. It is SANDAG's current policy that any roadway segment operating at an LOS of F, even it is grandfathered, be subject to Deficiency Plan requirements.

#### City of San Diego

The stated purpose of the *City of San Diego General Plan*, Mobility Element is to "improve mobility through development of a balanced, multi-modal transportation network". The Mobility Element is focused on the current and future relief of traffic congestion, mainly through detailed planning and coordination between transportation and land use planning both at the local and regional level. The Mobility Element goals and policies are aimed to address traffic congestion through planning policy and design guidelines that generally do not apply to construction-related projects that do not result in permanent transportation system demands.

#### City of Poway

The stated purpose of the *City of Poway General Plan*, Transportation Master Element is to "set forth goals, policies, and strategies that promote effective, safe, and efficient use of existing transportation facilities and development of new facilities, while protecting and managing the natural and commercial resources of the City". The Transportation Master Element states that all roadways within the City are currently operating within designed capacity.

#### Metropolitan Transit System

The Metropolitan Transit System (MTS) provides transit services within the City of San Diego, including within the Proposed Project area. The MTS provides bus services, light rail services, and full rail services (including freight). The MTS has a service territory of approximately 570 square miles within the urbanized portions of San Diego County and provides services to approximately three million people. Additional information regarding MTS's services within the City of San Diego is provided below.

<sup>&</sup>lt;sup>1</sup> These roadways are often referred to as "grandfathered".

## 4.14.3.2 Local Transportation System Overview

The major regional vehicular access to the Proposed Project area is provided via I-5 and I-15. SR-56 is also located within the Proposed Project area and provides additional, east/west regional transportation.

Roadway congestion is expressed using a scale that ranges from LOS A (least congested) to LOS F (most congested). In general, the standard minimum acceptable LOS for roadways within the cities of San Diego and Poway is D, with LOS of E or F not acceptable unless exempted. LOS E and F represent situations where the roadway capacity approximately equals the traffic volume (LOS approaches 1.0). For freeways and highways, the minimum acceptable LOS is typically LOS E.<sup>2</sup>

Private vehicle transportation is presently the primary mode of travel and the roadway system is classified by hierarchical roadway designations. For the purposes of this analysis, roadway classifications have been simplified to the following:

- Freeways and Highways;
- Arterial Roadways; and
- Collector Streets.

The general size and function of each of these is further described below. Table 4.14-2, Existing Average Daily Trips and LOS for Key Project Area Major Roadways, outlines traffic counts for freeways and highways; arterial roadways; and large collector streets affected by the Proposed Project and outlines calculated or published ADT and LOS values for each of these roadways. Existing traffic count data and published LOS values were obtained from SANDAG<sup>3</sup>. Where LOS was calculated from ADT, roadway capacities were derived from the *City of San Diego Street Design Manual*. Table 4.14-2 only includes freeways and highways; arterial roadways; and large collector streets which are anticipated to either be utilized for construction traffic or subject to intensive traffic control due to installation of underground cable or otherwise directly affected during construction.

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<sup>&</sup>lt;sup>2</sup> Freeways and highways within the project area are designated within the (San Diego) 2008 Congestion Management Program Update and are subject to different LOS standards according the Congestion Management Program guidelines.

<sup>&</sup>lt;sup>3</sup> SANDAG published values sourced from other entities such as Caltrans and the City of San Diego.

Roadway (Cross Street)	General Classification (number of lanes)	Jurisdiction/ Location	Average Daily Traffic (ADT) <sup>1</sup>	Published or Calculated Existing LOS <sup>2,3</sup>
I-5 (SR-56)	CMP Freeway (12 lanes)	Caltrans	301,600	Е
I-15 (Pomerado)	CMP Freeway (8-14 lanes)	Caltrans	210,600	F
I-805 (I-5)	CMP Freeway (8-12 lanes)	Caltrans	162,000	D
SR-56 (Camino Del Sur)	CMP Freeway (4 lanes)	Caltrans	78,900	A-D
SR-56 (Rancho Peñasquitos)	CMP Freeway (4 lanes)	Caltrans	76,400	A-D
Scripps Poway Pkwy (I-15)	CMP Arterial (6 lanes)	City of San Diego/ City of Poway	42,500	B-C
Pomerado Rd (Spring Canyon Road)	Arterial (4 lanes)	City of San Diego	18,100	А
Rancho Peñasquitos Blvd (Paseo Montril)	Arterial (4 lanes)	City of San Diego	28,700	B-C
Rancho Peñasquitos Blvd (SR-56)	Arterial (4 lanes)	City of San Diego	28,700	B-C
Black Mountain Rd (Carmel Valley Road)	Arterial (4 lanes)	City of San Diego	11,700	А
Black Mountain Rd (Oviedo Street)	Arterial (4 lanes)	City of San Diego	18,300	А
Black Mountain Rd (Park Village Road)	Arterial (4 lanes)	City of San Diego	30,300	С
Park Village Rd (Camino Del Sur)	Collector (4 lanes)	City of San Diego	17,300	В
Carmel Valley Rd (SR-56 Exit)	Arterial (4 lanes)	City of San Diego	13,100	А
Carmel Valley Rd (Camino Del Sur)	Collector (2 lanes, with 2-way turning)	City of San Diego	11,600	С
Camino Del Sur (Carmel Valley Road)	Collector (4 lanes)	City of San Diego	14,200	В
Camino Del Sur (SR- 56)	Arterial (4 lanes)	City of San Diego	18,500	A
Carmel Mountain Rd (Vista Sorrento)	Arterial (4 lanes)	City of San Diego	21,200	А

 Table 4.14-2: Existing Average Daily Trips for Key Project Area Major Roadways

Table (11/2 (acred)) E-2-42-		- :1 T: f	IZ D !	4 A N	) J
1 able 4.14-2 (cont.): Existing	g Average D	anv i rids i	or Kev Proiec	t Area Maior B	<b>Koadwavs</b>
	,				

			Average	Published or
	General		Daily	Calculated
Roadway	Classification	Jurisdiction/	Traffic	Existing
(Cross Street)	(number of lanes)	Location	$(ADT)^1$	$LOS^{2,3}$

Notes:

<sup>1</sup> ADT values given are the most current year (from range of 2006-2010) and correspond with each listed roadway at the listed cross street.

<sup>2</sup> Where ADT values were available for multiple segments for a given roadway, ADT values are given for those segments closest to the Proposed Project area.

<sup>3</sup> Where published LOS values are used, LOS values represent only segments in the vicinity of the Proposed Project. LOS values for CMP system freeways and arterials correspond to roadway segments, such as the I-5 between the I-805 and Manchester Avenue.

Sources: SANDAG, Google Earth, City of San Diego Street Design Manual.

#### 4.14.3.3 <u>Freeways and Highways</u>

Freeways and highways are designed to carry the highest volume of traffic, and typically connect large populated areas, including cities, utilizing design that completely separates the freeway or highway from lower designated streets and roads through utilization of grade separation and onand off-ramps. Freeways and highways allow for continuous movement and do not utilize stop lights or signs. The major freeways and highways in the Proposed Project vicinity are the I-5, I-805, I-15 and SR-56. Locations and proximity to the Proposed Project location are shown in Appendix 3-B.

#### 4.14.3.4 <u>Arterial Roadways</u>

An arterial road is a major or main route with traffic capacity just below that of highways. Arterial roads are designed to transfer traffic between neighborhoods, communities, and even cities, and have intersections (stop lights) with collector and other arterial streets. Arterial roads are sometimes sub-divided into major arterials and prime arterials, but simply defined as arterials within this analysis. Key arterial roadways that intersect the Proposed Project area as well as arterial roads that could be utilized by the Proposed Project related traffic are listed below and the locations are shown in Appendix 3-B:

- Pomerado Road
- Scripps Poway Parkway
- Spring Canyon Road
- Sabre Springs Parkway
- Poway Road
- Rancho Peñasquitos Boulevard

- Carmel Mountain Drive
- Black Mountain Road
- Camino Del Sur<sup>4</sup>
- Carmel Mountain Road<sup>4</sup>
- Carmel Valley Road<sup>4</sup>

<sup>&</sup>lt;sup>4</sup> Note that Camino del Sur, Carmel Mountain Road, and Carmel Valley Road would also be classified as Collector Streets in certain portions of the Proposed Project Area.

## 4.14.3.5 <u>Collector Streets</u>

A collector street has a lower traffic capacity than any other type road, and for the purposes of this analysis includes local streets. Collector streets function as connecting road links between arterial roads and local streets to lead traffic throughout communities and occasionally to freeways. Local streets generally connect collector streets with adjacent parcels (end uses). There are numerous collector streets within the Proposed Project area, including (but not limited to) the following collector roads that either intersect the Proposed Project alignment or that could be utilized by the Proposed Project related traffic (collector streets are depicted on Appendix 3-B):

- Stonebridge Parkway
- Oviedo Way & Oviedo Street
- Spring Canyon Road (restricted)<sup>5</sup>
- Parkway Center Drive
- Stowe Drive
- Wild Meadow Place

- Evening Creek Drive
- Meritage Court
- Scripps Summit Drive/ Scripps Summit
- Court Torrey Santa Fe Road
- Park Village Road
- Preserve Way

## 4.14.3.6 <u>Airports</u>

There are four airports within the City of San Diego, including the San Diego International Airport, MCAS Miramar, Brown Field, and Montgomery Field. In relation to the Proposed Project, the closest airports are MCAS Miramar (approximately 4 miles south of the Proposed Project) and Gillespie Field (located approximately 6.5 miles south-southeast of the Sycamore Canyon Substation within unincorporated San Diego County). MCAS Miramar is a military airfield not open to public or private operations and the Gillespie Field is a public municipal airport.

In addition, the McClellan-Palomar Airport is located approximately 12.3 miles north of the Proposed Project (within the City of Carlsbad) and the Montgomery Field is located approximately 9 miles southwest of the Proposed Project (within the City of San Diego).

## 4.14.3.7 <u>Public Transportation</u>

## **Bus Lines**

Bus services in the Proposed Project area are provided by MTS. MTS operates 93 fixed route bus lines within the City of San Diego and surrounding areas (3,241 square mile service territory) with a fleet of over 4,500 buses.

There are seven bus routes within the Proposed Project area, as outlined in Table 4.14-3, Bus Lines within the Proposed Project Area.

<sup>&</sup>lt;sup>5</sup> Spring Canyon Road is utilized for access to the Sycamore Canyon Substation as well as Structure Nos. P1 through P4. Spring Canyon Road is located on MCAS Miramar and is restricted from public access.

Proposed Project Segment	Roadway/ Route	Bus Line(s)	
	I-15	810, 820, 850, 860, 880	
Segment A	Poway Road	844	
	Carmel Mountain Road	20, 850	
Segment B	None		
Segment C	N	one	
Segment D	None		
Source: MTS, 2011			

 Table 4.14-3: Bus Lines within the Proposed Project Area

## **Trolley and Light Rail Lines**

MTS operates trolley and light rail transit services within the City of San Diego. MTS operates four trolley lines and one light rail line that include over 55 miles of track and over 53 stations. There are no trolley routes or light rail lines within the Proposed Project area.

## **Bicycle Facilities**

Bicycle facilities within the City of San Diego are developed and maintained according to the City's *Bicycle Master Plan*. The *Bicycle Master Plan* includes network maps, policies, and facility design elements relating to the creation and maintenance of the City's bicycle transportation system. Within the City of San Diego, there are generally three types of bikeways, as follows:

- Class I (Bike Paths): Provides for non-motorized modes of transportation only. Bike paths provide paved ROWs completely separated from streets, roads, and highways.
- Class II (Bike Lanes): Provides paved access for bikes on outer edge of existing roadways and highways. The bike lane is usually only demarcated by painting or striping and is not accessible to pedestrians.
- Class III (Bike Routes): Provides paved access for bikes in common area accessible to pedestrian and motorized traffic. Bike access is denoted only by signage and no physical barrier is provided between bike and other allowable traffic.

Table 4.14-4, Designated Bikeways within the Proposed Project Area, lists the designated bikeways that intersect, or are located immediately adjacent to the Proposed Project alignment. The location (street) and designated class are listed, as appropriate.

Proposed Project Segment	<b>Bikeway Location</b>	Bikeway Class Designation	
	Stonebridge Parkway	Class II (Bike Lane)	
	Pomerado Road	Class II (Bike Lane)	
	Scripps Poway Parkway	Class II (Bike Lane)	
Segment A	Poway Road	Class II (Bike Lane)	
	I-15	Class I (Bike Path)	
	SR-56	Class III (Bike Route)	
	Carmel Mountain Drive	Class II (Bike Lane)	
Segment B	Carmel Valley Road	Class II (Bike Lane)	
Segment C	SR-56	Class I (Bike Path)	
Segment D	East Ocean Air Drive	Class II (Bike Lane)	
Sources: City of San Diego Bicycle Master Plan, Final Draft, July 2013; City of Poway General Plan - Bicycle Element.			

 Table 4.14-4: Designated Bikeways within the Proposed Project Area

## 4.14.4 Potential Impacts

The Proposed Project involves the construction of new transmission line facilities and the replacement or relocation of existing power line and transmission line facilities as needed in order to accommodate installation of the new 230 kV transmission line. All proposed overhead facilities would be located within existing SDG&E ROW and utility corridors and proposed underground facilities would be located within an existing franchise position (city street). The Proposed Project would involve construction activities that would temporarily increase existing traffic, affect one existing roadway due to installation of underground transmission line, and affect other roadways during stringing of new conductor. Due to the fact that the transmission lines, power lines and substations included as part of the Proposed Project utilize existing utility corridors, structures, and a franchise position, operation and maintenance activities for the Proposed Project (especially those generating traffic) would largely mirror current operation and maintenance conditions. Therefore, the traffic analysis herein is focused on potential construction-related impacts to traffic and transportation.

## 4.14.4.1 <u>Significance Criteria</u>

Standards of impact significance were derived from Appendix G of the *CEQA Guidelines*. Under these guidelines, the Proposed Project could have a potentially significant impact to transportation and traffic if it would:

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 result 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; or
- 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.
- 4.14.4.2 Question 14a 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 nonmotorized 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?

## **Construction – Less than Significant Impact**

## Impacts to LOS from Construction-Related Traffic

The CMP and the City of San Diego have acceptable LOS standards for roadways within the Proposed Project area. These LOS standards can constitute a measure of the existing performance of the circulation system, against which the Proposed Project's effects are measured. Construction of the Proposed Project would result in minor, temporary increases in ADT along road segments where construction personnel, equipment, and other construction-related trips would access work areas (refer to Appendix 3-B for all work areas and roadways within the Proposed Project area).

Due to the nature of transmission and power line construction, multiple work areas are needed and construction traffic is largely spread out among existing roadways and SDG&E unpaved access roads. The number of trips generated by Proposed Project construction would vary by Segment and task type. A typical structure site (such as for Segments A and D of the Proposed Project) may only require six workers at one time and only as many daily trips. For construction within environmentally sensitive areas (e.g., those containing biological, cultural, or other resources), monitoring may be required, typically during clearing and grading activities. Where excavation is occurring, trips can also be generated for the import or export of soil. Construction of Segment B (underground transmission line) would require the highest number of trips for hauling, up to approximately 35 trips per day, per crew. Other construction trips may be generated from materials delivery, inspectors and foreman, as well as SDG&E construction oversight personnel.

Equipment brought to each structure site during construction (a drill rig, for example) would also generate trips. However, equipment would typically remain at each site until work was complete (typically no more than a few days for most aspects of construction) and thus construction equipment would typically not represent a daily source of trips.

Construction workers typically meet at construction staging yards before mobilizing to construction sites, often in varying locations, in order to complete safety related tailgates and planning activities. Therefore, the highest level of combined worker traffic would often occur at the construction staging yards. On a worst case day, approximately 70 daily trips (15 to the site and 15 back for workers and 40 trips for hauling) could be required at a single construction site, but typical daily totals would be closer to 10 (no hauling) or 30 when significant excavation is occurring (such as trenching along Segment B).

Construction of the Proposed Project would involve construction at multiple sites (for example there may be two foundation crews working along Segment A, and another two working along Segment B), as well as on each of the four segments at one time. However, the construction traffic generated for work on Segment A would typically not be cumulatively considerable with traffic generated for work along Segment D as different construction staging yards would likely be utilized, and different streets would be utilized as the specific construction access route. Therefore, even if max construction for the entire project resulted in 220 daily trips (100 workers [two ways – 200 trips] plus worst case excavation hauling on Segment B [40 trips]), these trips would be dispersed among multiple access routes such that any given street utilized for construction access would only experience a fraction of the total project-related traffic.

In addition, the traffic that would be generated by the Proposed Project would be negligible compared to existing ADTs on public roadways and freeways that would be used for construction access (refer to Section 4.14-3 and Table 4.14-2). Finally, with the exception of the I-15 freeway, all public roadways that would likely be utilized for construction access currently operate at acceptable LOS (A through D for city streets and A through E for CMP designated roadways and freeways), with the exception of the I-15 (LOS F). With respect to the I-15, the minimal incremental increase and temporary nature of Proposed Project related trips is not anticipated to result in a significant deterioration of existing LOS conditions on the I-15. Therefore, impacts relating to construction generated traffic are anticipated to be less than significant as the Proposed Project would not result in a conflict with existing LOS standards or deterioration of any existing LOS to substandard levels.

## Impacts to LOS from Construction of Underground Transmission Line within Roadways

The CMP and the City of San Diego have acceptable LOS standards for roadways within the Proposed Project area. These LOS standards can constitute a measure of the performance of the circulation system, against which the Proposed Project's effects are measured. Segment B of the Proposed Project includes installation of new underground transmission line within an existing roadway (Carmel Valley Road), which would potentially require temporary lane closures on Carmel Valley Road during construction. The easternmost segment of the new underground transmission line would be installed within Black Mountain Ranch Community Park, which would also require temporary closure to the park entrance driveway off Carmel Valley Road. Active construction of the new underground segment of transmission line through Carmel Valley

Road (installation of vaults and duct package) would last approximately six months and temporary lane closures would be required during this time.

The significance of potential impacts to traffic and circulation due to the construction within Carmel Valley Road was evaluated considering the following factors:

- 1. Duration of construction activities,
- 2. The LOS of the affected roadway,
- 3. Design of the underground transmission line, and
- 4. Nature of roadway and existing traffic.

The proposed underground transmission line route through Carmel Valley Road is being designed, where feasible, to utilize a large median that currently exists through much of the roadway along the proposed route (refer to Appendix 3-B). Utilization of the median would minimize the potential for lane closures along Carmel Valley Road during construction<sup>6</sup>. Based upon the current preliminary design, approximately 1.9 miles of Segment B would be located within the existing median.

In addition, traffic control plans would be prepared (and approved by the City of San Diego, as needed) for all work conducted within Carmel Valley Road or that would require traffic control (i.e., lane closures) along Carmel Valley Road. Encroachment permits (or equivalent) would be required for all work in a city roadway ROW. The approved traffic control plans would describe lane closures and other methods for reducing adverse construction-related traffic impacts. One common traffic control measure often included within encroachment permits is to limit, or direct the hours of construction such that period of high traffic volume (often peak AM and PM hours) are avoided or minimized. This is often accomplished by limiting construction within roadways to the approximate hours of 9 AM to 4 PM. The preparation and implementation of traffic control plans effectively directs work within streets, including lane closures, such that impacts to traffic flow are minimized, especially during those times of the day where traffic volumes are the highest. This measure is often used and is most effective in areas where ADT is largely generated from residential land uses and thus traffic trips are largely related to work and school traffic. Carmel Valley Road connects to almost exclusively residential land uses, and thus traffic along Carmel Valley Road would likely be concentrated within the peak AM and PM hours. Therefore, traffic control measures would provide effective reduction in the impact to LOS during construction of Segment B of the Proposed Project. Furthermore, Carmel Valley Road currently operates at acceptable LOS of A-C, thus the capacity of Carmel Valley Road is currently adequate for the number of daily trips. Therefore, while construction of Segment B of the Proposed Project would potentially result in lane closures along Carmel Valley Road, the design of the route (utilization of the oversized median where feasible), development of approved traffic control plans, and the nature of existing traffic along Carmel Valley Road would ensure that impacts to traffic flow and congestion (LOS) along Carmel Valley Road would be less than significant.

<sup>&</sup>lt;sup>6</sup> Carmel Valley Road was designed for eventual expansion and thus contains an oversized median for much of the proposed underground transmission line route. The oversized median would eventually be utilized for the expanded Carmel Valley Road (i.e. additional lanes). The proposed underground transmission line would be designed and constructed in a manner that would not hinder the eventual buildout of Carmel Valley Road.

In addition, APM TR-1 would ensure that SDG&E would coordinate in advance with emergency service providers to avoid restricting movements of emergency vehicles, to ensure that emergency vehicle access is maintained, and that impacts to emergency-related traffic flow are minimized.

#### **Operation & Maintenance – Less than Significant Impact**

Operation and maintenance of the Proposed Project would occur in the same or essentially the same locations as it occurs today under baseline, existing conditions, and there would not be any new impacts resulting from operation and maintenance of the Proposed Project except in relation to the new underground line proposed as Segment B. Operation and maintenance of Segment B would result in inspection activities at splice vault locations along Carmel Valley Road on 3-year cycles. While these operation and maintenance activities may require encroachment permits and traffic control measures, any impact to local traffic conditions is anticipated to be less than significant due to the use of the median, the frequency and duration of these events, the timing of work to avoid peak hours, and the effectiveness of traffic control. As a result, there would be no significant long-term impacts to the existing LOS standards or other adopted traffic control standards as a result of operations and maintenance of the Proposed Project.

#### 4.14.4.3 <u>Question 14b – Conflict with an applicable congestion management program,</u> <u>including, but not limited to level of service standards and travel demand</u> <u>measures, or other standards established by the county congestion management</u> <u>agency for designated roads or highway?</u>

## **Construction – Less than Significant Impact**

The CMP 2008 Update includes four roadways within the Proposed Project vicinity within the CMP system, including the I-5, I-15, SR-56, and Scripps Poway Road. Only the I-15 currently operates at an unacceptable LOS (F) while the other three operate at LOS E or higher.

As previously discussed in the response to Question 14a, the Proposed Project's constructionrelated traffic would result in a minimal, temporary increase in the existing daily traffic spread throughout the Proposed Project area.

The Proposed Project's maximum temporary increase of approximately 220 daily vehicle trips would not significantly increase congestion or cause the roadways to operate at a LOS lower than they currently operate. The four CMP system roadways carry high to very high volumes of vehicles, and the incremental increase the Proposed Project would result in would be insignificant (0.3 to 0.07 percent increase in ADT). Furthermore, increases in ADT from Proposed Project construction would be temporary and are not anticipated to result in any permanent effect on the CMP system or prescribed corrective measures. Therefore, construction activities would not conflict with any relevant CMPs or any other standards within the Proposed Project area and impacts would be less than significant.

#### **Operation & Maintenance – Less than Significant Impact**

As described previously in Section 4.14.4.2, because operation and maintenance of the Proposed Project would occur in the same or essentially the same locations as occur today under baseline, existing conditions, there would not be any new impacts resulting from operation and

maintenance of the Proposed Project, except for minor and infrequent impacts relating to the operation and maintenance activities at new splice vault locations along Segment B. As a result, there would be no significant long-term impacts to the existing LOS standards, CMP designations, or other adopted traffic control standards as a result of operations and maintenance of the Proposed Project.

#### 4.14.4.4 <u>Question 14c – Result in a change in air traffic patterns, including either an</u> <u>increase in traffic levels or a change in location that result in substantial safety</u> <u>risks?</u>

## **Construction – Less than Significant Impact**

As described in Section 3.4.8, Helicopter Usage during Transmission Line Construction, helicopters are anticipated to be used as a construction tool during the stringing of overhead conductor cable and potentially other transmission line construction activities associated with the Proposed Project. Helicopter flights would generally be limited to within SDG&E's existing ROW and adjacent areas, except where the helicopters would travel to and from local airports or Proposed Project incidental landing areas<sup>7</sup>. It is anticipated that helicopters would only be utilized during daylight hours. Transmission line work would temporarily increase air traffic and encroach on navigable air space during construction; however, SDG&E or its contractor would coordinate flight patterns with local air traffic control (airports) and the FAA (Notice to Airman) prior to and during construction to prevent any adverse impacts due to the slight increase in air traffic. In addition, helicopter utilization would be compliant with applicable usage permits including a requirement for preparation of a CAP in compliance with FAA requirements (refer to Section 3.8). As a result, no impact to air traffic is anticipated. It is anticipated that helicopters utilized for the Proposed Project would be staged out one of the local airports (such as McClellan Palomar, Montgomery, and Gillespie).

The Montgomery Field is the closest public airport to the Proposed Project, located approximately 9 miles south southeast of the Sycamore Canyon Substation. The Proposed Project is not subject to any airport land use approval because of its distance from existing airports. However, due the location of Proposed Project facilities (Sycamore Canyon Substation and Structure Nos. P1, P2, and P3) on MCAS Miramar, the FAA will be notified for all new facilities located on MCAS Miramar. Additionally, the FAA will be provided notification for segments of the Proposed Project that fall within the applicable communities within the MCAS Miramar AIA, as required by the *MCAS Miramar ALUCP*. The Proposed Project, while partially located on MCAS Miramar, is located over 4 miles from the MCAS Miramar. None of the Proposed Project structures or equipment used to construct the Proposed Project are anticipated to be taller than 200 feet<sup>8</sup>. Therefore, no FAA clearance is anticipated to be required and no impacts are anticipated. However, the FAA will be consulted in relation to aerial marking and

<sup>&</sup>lt;sup>7</sup> It is anticipated that the Proposed Project staging yards may be utilized for incidental landing areas. Helicopters could also pick up conductor or other material from stringing sites or pole construction sites that contain sufficient area, typically a minimum 150-foot by 150-foot area.

<sup>&</sup>lt;sup>8</sup> Individual spans of transmission or power line may exceed 200 feet due to topographic conditions and would therefore require aerial marking (marker balls). The FAA will be noticed for all spans anticipated to be over 200 feet above ground level and aerial marking will be implemented pursuant to specific direction and approval of the FAA.

lighting and SDG&E will implement aerial marking and lighting as directed by the FAA. Any potential impact to air traffic from new overhead structures or facilities would be less than significant following compliance with FAA regulations, including any requirements related to aerial marking.

#### **Operation & Maintenance – No Impact**

With respect to air traffic, operation and maintenance of the Proposed Project would occur in the same or essentially the same locations as they occur today under baseline, existing conditions<sup>9</sup>. Therefore, there would not be any new impacts resulting from operation and maintenance of the Proposed Project related to air traffic. SDG&E does not anticipate that helicopter use beyond that currently required for their existing facilities would be necessary to operate or maintain the Proposed Project. As a result, there would be no impact to air traffic due to the operation and maintenance of the Proposed Project.

# 4.14.4.5 <u>Question 14d – Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?</u>

#### **Construction – Less than Significant Impact**

Construction of the Proposed Project would not result in any permanent modification to existing public roadways or other transportation infrastructure. Proposed Project work in public road ROWs could increase hazards if appropriate safety measures are not in place, such as guard structures, proper signage, safety cones, flaggers, and other traffic control measures. However, SDG&E always utilizes guard structures for conductor stringing over roadways. In addition, SDG&E would be required to obtain encroachment permits in order to complete work within or over roadways. 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. With traffic control plans meeting jurisdictional requirements for traffic safety, the work would not be incompatible with traffic or substantially increase traffic hazards.

#### **Operation & Maintenance – Less than Significant Impact**

Because operation and maintenance of the Proposed Project would occur in the same or essentially the locations as they occur today under baseline, existing conditions, there would generally not be any new impacts resulting from operation and maintenance of the Proposed Project. Operation and maintenance of Segment B of the Proposed Project would result in a requirement for periodic access to approximately ten new underground splice vaults. Access to these splice vault locations could result in short-term alterations to traffic flow along Carmel Valley Road. However, access to the splice vault locations would be very infrequent (one visit every three years), would last only approximately one day per visit, and would be conducted pursuant to City of San Diego encroachment permit requirements, including traffic control measures. As a result, impacts would be less than significant.

<sup>&</sup>lt;sup>9</sup> Note that while Segment B would require infrequent operation and maintenance at the ten splice vault locations, such activities would not involve the use of helicopters and would therefore not affect air traffic in any way.

Access for the operation and maintenance activities would be provided from existing public roads and existing SDG&E unpaved access roads. With exception of the Segment B as described above, this access would be the same as current access, and as such would not result in any impact compared to existing conditions.

## 4.14.4.6 <u>Question 14e – Result in inadequate emergency access?</u>

#### **Construction – Less Than Significant Impact with Implementation of APMs**

Emergency access would not be directly impacted during construction because all streets would remain open to emergency vehicles throughout construction. Increased vehicle traffic during construction and temporary lane closures during the undergrounding of new underground trench packages would occur. Although this can impact emergency access, the increase in vehicle traffic during construction would be minor, is not expected to significantly affect response times, and construction within public roadways would be conducted pursuant to approved traffic control plans that would ensure emergency vehicle access is preserved during construction activities. In addition, to ensure that emergency response access is maintained, SDG&E would coordinate with all of the local emergency response agencies during all construction within roadways (APM TR-1). Thus, impacts would be less than significant.

#### **Operation & Maintenance – Less than Significant Impact**

As discussed previously, because operation and maintenance of the Proposed Project would occur in the same or essentially the locations as they occur today under baseline, existing conditions, there would generally not be any new impacts resulting from operation and maintenance of the Proposed Project. However, operation and maintenance of Segment B would require access to the approximately ten new underground splice vaults located along Carmel Valley Road. Access to these splice vaults could impact emergency vehicle access. However, scheduled access to the splice vaults would occur very infrequently (once every three years) and would be subject to local encroachment permit and traffic control requirements from the City of San Diego. As part of the encroachment permit process, appropriate traffic control measures (as approved by the City) would be required to be implemented during access of the splice vaults whenever traffic flow could be affected. Therefore, any impacts to emergency vehicle access that could occur as a result of operation and maintenance of the Proposed Project would be less than significant due to adherence to local roadway encroachment and traffic control requirements and the low frequency of required operation and maintenance.

# 4.14.4.7 <u>Question 14f – Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities supporting alternative transportation?</u>

#### **Construction – Less than Significant Impact**

Construction of the Proposed Project would occur almost exclusively within existing SDG&E ROW areas and within franchise position within a city street. The Proposed Project would not involve activities that would conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, including bus transportation in the area. Short term disruption to one Class II Bike Lane would occur during construction of Segment B of the Proposed Project (Carmel Valley Road). However, the majority of Segment B would be

installed near the center of the existing roadway (mostly within a large median), such that the bike lane would experience minimal affects. In addition, work within Carmel Valley Road would be conducted pursuant to traffic control plans and encroachment permits that would include measures for diverting bicycle traffic as an element of traffic control. Therefore, impacts are anticipated to be temporary and less that significant.

## **Operation & Maintenance – No Impact**

The operation and maintenance activities for the Proposed Project would generally not change from the current practices, with the minor exception of periodic maintenance and inspection on Segment B, which is proposed to be located in an underground position within Carmel Valley Road. Operation and maintenance of the overhead segments of the Proposed Project (Segment A, C, and D) would not substantially increase from what occurs under current, baseline conditions. Rail, bus, and bicycle traffic are not affected by current operation and maintenance activities associated with the existing overhead power and transmission lines located within Proposed Project. Therefore, no impact to rail, bus, and bicycle traffic are anticipated related to operation and maintenance of the new overhead transmission line or relocated power or transmission lines.

Operation and maintenance of the new underground segment of transmission line would require infrequent access of the splice vaults, which result in the potential requirement for traffic control measures and temporary lane closures along Carmel Valley Road that could affect transit and alternative modes of transportation. However, these operation and maintenance activities (refer to Section 3.7) would occur very infrequently (one visit every three years), would last only approximately one day per visit, and would comply with applicable encroachment permit and traffic control requirements. Therefore, ongoing operation and maintenance of the new underground segment of transmission is not anticipated to result in impacts to rail, bus, bicycle, or other forms of public transportation.

## 4.14.5 Project Design Features and Ordinary Construction/Operating Restrictions

With implementation of the project design features and ordinary construction restrictions (as described within Section 3.8) potential impacts relating to construction traffic, including impacts resulting from construction of Segment B, would remain less than significant.

## 4.14.6 Applicant Proposed Measures

The Proposed Project has no potentially significant impacts relating to transportation and traffic that are not adequately mitigated through compliance with existing laws, regulations, project design features, and ordinary construction/operating restrictions, except for potential impacts to emergency service access during construction of Segment B. Construction of Segment B would be completed in conformance with APM TR-1, as outlined below.

**TR-1:** SDG&E will coordinate with local emergency response agencies during all construction within Carmel Valley Road. Coordination with local emergency response agencies (in addition to project design features and ordinary construction/operating restrictions detailed in Section 3.8) would ensure that impacts to emergency access are less than significant.

#### 4.14.7 Detailed Discussion of Significant Impacts

Based on the preceding analysis, no significant impacts relating to transportation and traffic are anticipated from the Proposed Project.

#### 4.14.8 References

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#### 4.15 UTILITIES AND SERVICE SYSTEMS

Would th	ne project:	Potentially Significant Impact	Potentially Significant Unless APMs Incorporated	Less than Significant Impact	No Impact
a.	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				V
b.	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				Ø
с.	Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				V
d.	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? In making this determination, the City shall consider whether the project is subject to the water supply assessment requirements of Water Code Section 10910, et. Seq. (SB 610), and the requirements of Government Code Section 664737 (SB 221).				V
e.	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?				Ø
f.	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			Ø	
g.	Comply with federal, state, and local statutes and regulations related to solid waste?				Ø

#### 4.15.1 Introduction

This section of the PEA describes the existing conditions and potential project-related impacts to utilities and service systems. Utilities and service systems include water infrastructure and supply, wastewater, solid waste disposal, utilities (electricity and natural gas), and communications. No significant adverse impacts would occur to utilities and service systems, and less-than-significant impacts would result to landfill capacity and water supplies from construction of the Proposed Project. The Proposed Project would have a positive impact on electric utility services within the Proposed Project area, including the service areas within the cities of San Diego and Poway and the County of San Diego.

#### 4.15.2 Methodology

Utilities and service systems data were obtained from searches of local government websites and other local service informational resources.

#### 4.15.3 Existing Conditions

#### 4.15.3.1 <u>Regulatory Setting</u>

State

#### California Integrated Waste Management Board

The Integrated Waste Management Act of 1989 (PRC 40050 *et seq.* or AB 939, codified in PRC 40000), administered by the California Department of Resources Recycling and Recovery (CalRecycle), requires all local and county governments to adopt a Source Reduction and Recycling Element to identify means of reducing the amount of solid waste sent to landfills. This law set reduction targets at 25 percent by the year 1995 and 50 percent by the year 2000. Senate Bill 1016 (2007) builds on AB 939 by implementing simplified measures of performance toward meeting solid waste reduction goals.

#### Local

#### City of Poway

The following general plan policies and strategies are potentially relevant regarding public utilities:

**Policy A – City Water System.** A consistent level of quality water service shall be maintained by minimizing the impacts of new land use changes on the existing system.

#### Strategies:

- 1. Encourage and promote water conservation techniques and awareness in the community.
- 2. Require the use of low volume irrigation systems where feasible.

**Policy C – Water Reclamation.** Serve the community's wastewater treatment needs through water reclamation.

#### Strategies:

1. Reclaimed water shall be used whenever its use is economically justified, technically feasible and consistent with legal requirements, preservation of public health, safety and welfare and environmentally desirable. Reclaimed water uses may include landscape irrigation, filling of artificial lakes, industrial processes and agricultural production.

#### City of San Diego

The following general plan goals and policies are potentially relevant regarding public utilities:

Goal. Public utility services provided in the most cost-effective and environmentally sensitive way.

**Goal.** Public utilities that sufficiently meet existing and future demand with facilities and maintenance practices that are sensible, efficient, and well-integrated into the natural and urban landscape.

**Policy PF-M.1.** Ensure that public utilities are provided, maintained, and operated in a cost-effective manner that protects residents and enhances the environment.

**Policy PF-M.4.** Cooperatively plan for and design new or expanded public utilities and associated facilities (e.g., telecommunications infrastructure, planned energy generation facilities, gas compressor stations, gas transmission lines, electrical substations and other large-scale gas and electrical facilities) to maximize environmental and community benefits.

- a) Use transmission corridors to enhance and complement wildlife movement areas and preserved open space habitats as identified in the City's MSCP.
- b) Provide adequate buffering and maintained landscaping between utility facilities and residential and non-residential uses, including the use of non-building areas and/or rear setbacks.
- c) Maximize land use and community benefit by locating compatible/appropriate uses within utility easements/ROWs (e.g., passive parkland, natural open space, wildlife movement, urban gardens, plant nurseries, parking, access roads, and trails). Trails can be allowed in these easements/ROWs, provided proper indemnification, funding, and maintenance is set forth in a written agreement between the public utility, the City, and project developer.
- e) Incorporate public art with public utility facilities, especially in urban areas.
- f) Ensure utility projects account for maintenance of community streetscape elements and street trees.
- g) Coordinate projects in the public ROW with all utility providers.

The following general plan goals and policies are potentially relevant regarding waste management:

**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.

As part of the general plan, specific community plans are designed to guide the physical development of unincorporated communities, as well as clearly define the character, aesthetic, values and densities of each community. The Proposed Project runs through MCAS Miramar as well as the communities of Rancho Encantada, Scripps Miramar Ranch, Miramar Ranch North, Sabre Springs, Rancho Peñasquitos, Black Mountain Ranch, Torrey Highlands, Pacific Highlands Ranch, Del Mar Mesa, Carmel Valley, and Torrey Hills. There are no relevant policies related to utilities and service systems in the Rancho Encantada, Scripps Miramar Ranch, Pacific Highlands Ranch, Del Mar Mesa, and Carmel Valley community plans.

#### Miramar Ranch North Community Plan

The following community plan objective is potentially relevant regarding public utilities:

**Objective.** Provide adequate utility service for development in the community.

#### Sabre Springs Community Plan

The overall goal for public facilities and services is to guarantee a range of public facilities and services accessible to the community and suitable to local needs. The following objectives further articulate this goal:

- Provide public and semi-public services appropriate in quantity, accessibility, timing and quality to local community requirements, including police and fire protection, library services, postal service, health care and solid waste disposal.
- Ensure adequate public and semi-public utility services to accompany community development, including water, liquid waste disposal, power and communications services.
- Provide adequate drainage facilities with emphasis on design of facilities which will maintain the creeks in as natural drainage condition as possible.
- Encourage design of public facilities that is aesthetically compatible and environmentally sensitive with the surroundings including undergrounding of utilities and cable communications where possible.

#### Rancho Peñasquitos Community Plan

The following community plan policy is potentially relevant regarding public utilities:

• Public facilities should be required in advance of need where possible in order to ensure proper location, adequate size and lower costs.

#### Black Mountain Ranch Subarea Plan

The following implementing principle is potentially relevant regarding public utilities:

• Provide for the development of essential schools, parks, and library facilities; police and fire protection services; and public utilities.

#### Torrey Highlands Subarea Plan

The following implementing principle and policies are potentially relevant regarding public utilities:

**Implementing Principle.** Pursue joint use agreements with public utilities to permit use easements.

#### Torrey Hills Community Plan

The following policies are potentially relevant regarding public utilities:

• Encourage the design of utility facilities which are aesthetically and environmentally sensitive. This includes, to the degree financially feasible, locating utility lines of 69 kV and below, underground, and screening large, concrete-lined drainage channels and the SDG&E substation facilities.

#### 4.15.3.2 <u>Water</u>

The Proposed Project is serviced by the City of San Diego Public Utilities Department. The water supply includes allocations from the Colorado River, State Water Project, and local sources. The City imports approximately 80 to 90 percent of its water from the San Diego County Water Authority, which obtains imported water from the Metropolitan Water District of Southern California (MWD) and transferred water from the Imperial Irrigation District. MWD's supplies come from the State Water Project and the Colorado River. The City's local water supplies consist of surface water obtained from local watersheds and recycled water. The City has nine local surface water reservoirs with more than 408,000 acre-feet of capacity. These reservoirs capture local rainwater and runoff to supply approximately 12 percent of the City's water.

#### 4.15.3.3 <u>Sewer</u>

The City of San Diego Public Utilities Department's Metropolitan Sewerage System collects, treats, and disposes of an average of 180 million gallons per day (mgd) of wastewater for a population of 2.2 million. In addition to providing wastewater collection and treatment services within the City, the Public Utilities Department treats the wastewater from 15 other cities and sanitation districts, which accounts for 32 percent of the wastewater flow generated. Planned improvements will increase wastewater treatment capacity to serve an estimated population of 2.9 million and nearly 340 mgd by the year 2050.

#### 4.15.3.4 Solid Waste

There are six active landfills in San Diego County that serve both incorporated and unincorporated communities. It is estimated that there is sufficient landfill capacity for 30 years considering current landfill expansions and proposed new landfills. The Republic Services Otay Landfill (Solid Waste Information System [SWIS] No. 37-AA-0010), located approximately 20 miles south of the Proposed Project in Chula Vista, is a private facility with a permitted capacity of 61,154,000 cubic yards per year. It is a Class III solid waste landfill, meaning it cannot accept solid or liquid hazardous waste. It has approximately 24,514,000 cubic yards of capacity remaining as of March 2012, and is expected to be active until the year 2028.

It is anticipated that non-hazardous solid waste generated during construction of the Proposed Project would be sent to the Republic Services Otay Landfill or to TPST Soil Recycler, located 135 miles north of the project in Adelanto. Hazardous or otherwise regulated wastes would be sent to either the WMI-Chemical Waste Management Kettleman Hills-B-18 Nonhaz Codisposal Landfill (SWIS No. 37-AA-0023) or the Clean Harbors LLC Buttonwillow Landfill (SWIS No. 15-AA-0257). The Kettleman Hills facility is located on a 1,600-acre property with 499 acres currently available and permitted for waste management activities. Therefore, it is anticipated that the Kettleman Hills facility would not reach its planned capacity prior to the completion of Proposed Project construction. The 320-acre Clean Harbors LLC Buttonwillow Landfill has a permitted maximum capacity of more than 14 million cubic yards and an anticipated closure date of 2040.

#### 4.15.3.5 <u>Utilities</u>

With a service territory spanning approximately 4,100 square miles, SDG&E provides electric and gas service to 3.4 million people through 1.4 million electric meters and 860,000 natural gas meters in San Diego and southern Orange counties.

#### 4.15.3.6 <u>Communications</u>

AT&T, Time Warner Cable, and Cox Communications are among the numerous communications services providers in the City of San Diego. These companies offer telephone and internet services in San Diego County.

#### 4.15.4 Potential Impacts

#### 4.15.4.1 <u>Significance Criteria</u>

Standards of impact significance were derived from Appendix G of the *CEQA Guidelines*. Under these guidelines, the assessment of the Proposed Project should look to whether the Proposed Project would:

- a) Exceed wastewater treatment requirements of the applicable RWQCB;
- b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;

- c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed;
- e) Result in the 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;
- f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; or
- g) Comply with federal, state, and local statutes and regulations related to solid waste.

#### 4.15.4.2 <u>Question 15a – Exceed wastewater treatment requirements of the applicable</u> <u>RWQCB?</u>

#### **Construction – No Impact**

Wastewater generation during construction of the Proposed Project is not anticipated to require direct support from the local wastewater treatment system. Construction activities would be served by portable sanitary systems at the staging areas that would not be connected to the local wastewater system. The portable toilets would be maintained by a licensed sanitation contractor that would dispose of the waste at an off-site location and in compliance with standards established by the RWQCB.

During excavation activities, dewatering may be necessary in some locations during structure foundation construction of the overhead segments and/or during trenching of the underground Segment B along Carmel Valley Road. Construction dewatering procedures that would be implemented during construction are outlined in Section 3.0, Project Description. Prior to construction, SDG&E would acquire a NPDES permit from the SWRCB and prepare a SWPPP. If trench water is encountered, trenches would be dewatered using a portable pump and disposed in accordance with acquired permits. As a result, it would not require treatment at a wastewater facility. Therefore, no impacts to wastewater treatment requirements would occur.

#### **Operation & Maintenance – No Impact**

The Proposed Project would replace and relocate existing electric transmission and power line facilities and add one new transmission line within existing transmission and power line corridors and franchise position within a City street. All proposed new and relocated facilities are located in existing SDG&E ROW that contain similar facilities that are currently operated and maintained, except for the new underground segment of 230 kV transmission line proposed in Segment B, which would have a very marginal effect on SDG&E's existing underground inspection and maintenance program. Upon completion of construction activities, the Proposed Project would operate unmanned. Operations and maintenance activities would not significantly increase in intensity, frequency, or duration with implementation of the Proposed Project and would be substantially similar to existing operations and maintenance activities, which do not exceed the RWQCB's wastewater treatment requirements. Therefore, no impacts would occur.

#### 4.15.4.3 <u>Question 15b – Require or result in the construction of new water or wastewater</u> <u>treatment facilities or expansion of existing facilities, the construction of which</u> <u>could cause significant environmental effects?</u>

#### **Construction – No Impact**

Water would be used during construction of the Proposed Project for dust control on access roads, for soil compaction during grading, preparing concrete for the foundations, and for establishment of landscaping. Because this water would be dispersed on-site and would either evaporate or be absorbed into the ground, no wastewater is anticipated. Construction activities would be served by portable sanitary systems at the staging areas that would not be connected to the local wastewater system. In addition, during excavation activities, dewatering may be necessary. As previously described, the water would be discharged in accordance with the General Construction Permit and would not require treatment at a wastewater facility. There would not be any need for new or expanded water or wastewater treatment facilities because the construction water needs would be minimal and temporary; therefore, no impacts would occur.

#### **Operation & Maintenance – No Impact**

The Proposed Project would replace and relocate existing electric transmission and power line facilities and add one new transmission line within existing transmission and power line corridors and franchise position within a City street. All proposed new and relocated facilities are located in existing SDG&E ROW that contain similar facilities that are currently operated and maintained, except for the new underground segment of 230 kV transmission line proposed in Segment B, which would have a very marginal effect on SDG&E's existing underground inspection and maintenance program. Upon completion of construction activities, the Proposed Project would operate unmanned. Operations and maintenance activities would not significantly increase in intensity, frequency, or duration with implementation of the Proposed Project and would be substantially similar to existing operations and maintenance activities. No new or expanded water or wastewater treatment facilities would be required. Therefore, no impacts would occur.

#### 4.15.4.4 <u>Question 15c – Require or result in the construction of new stormwater drainage</u> facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

#### **Construction – No Impact**

The Proposed Project would not generate a substantial amount of additional stormwater runoff because the amount of impervious area would not be substantially altered. The Proposed Project is required to obtain coverage under the General Construction Permit through the SWRCB, which requires the development and implementation of a SWPPP. SDG&E would adhere to the requirements in the SWPPP. The Proposed Project would not result in the construction of new stormwater drainage facilities or expansion of existing facilities; therefore, there would be no impacts to stormwater drainage facilities.

#### **Operation & Maintenance – No Impact**

The Proposed Project would replace and relocate existing electric transmission and power line facilities and add one new transmission line within existing transmission and power line corridors and franchise position within a City street. All proposed new and relocated facilities are located in existing SDG&E ROW that contain similar facilities that are currently operated and maintained, except for the new underground segment of 230 kV transmission line proposed in Segment B, which would have a very marginal effect on SDG&E's existing underground inspection and maintenance program. The Proposed Project is an unmanned utility project and would not generate a substantial amount of additional stormwater runoff because the amount of impervious area would not be substantially altered. Therefore, no impacts would occur.

#### 4.15.4.5 <u>Question 15d – Have sufficient water supplies available to serve the project from</u> <u>existing entitlements and resources, or are new or expanded entitlements</u> <u>needed?</u>

#### **Construction – No Impact**

Water is anticipated to be the primary means for dust control during construction of the Proposed Project. Water would be brought to the Proposed Project site in trucks specially equipped to allow for the dispersal of water onto unpaved disturbed areas where access road establishment or routine movement of construction vehicles occurs to reduce the potential for dust particles to enter the air. Water would also be used during foundation construction and grading activities, and to restore vegetation or landscaping, as necessary. It is estimated that approximately 25 million gallons of water could be used for construction, dust control, and landscaping over the duration of construction and restoration activities. Water used during construction of the Proposed Project would be acquired from existing local water sources. It is anticipated that the Proposed Project would be sufficiently served by existing local water resources and would not cause a need for new or expanded entitlements or other water supply resources. Therefore, impacts to water supply would be minimal and no impact would occur.

#### **Operation & Maintenance – No Impact**

The Proposed Project would replace and relocate existing electric transmission and power line facilities and add one new transmission line within existing transmission and power line corridors and franchise position within a City street. All proposed new and relocated facilities are located in existing SDG&E ROW that contain similar facilities that are currently operated and maintained, except for the new underground segment of 230 kV transmission line proposed in Segment B, which would have a very marginal effect on SDG&E's existing underground inspection and maintenance program. Activities for the Proposed Project would not substantially increase in frequency, intensity, or duration with implementation of the Proposed Project and would be substantially similar to existing operations and maintenance activities. Operations and maintenance of the Proposed Project would not increase water demand or warrant expanding existing entitlements; therefore, no impacts would occur.

# 4.15.4.6 Question 15e – Result in the 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?

#### **Construction – No Impact**

As previously analyzed in responses to Questions 15a and 15b, wastewater generation during construction is not anticipated to require direct support from the local wastewater treatment system. Construction activities would be served by portable sanitary systems that would not be connected to the local wastewater system. The licensed contractor would dispose of the waste at an off-site location and in compliance with standards established by the RWQCB. If dewatering is necessary during excavation activities, the water would be discharged in accordance with the General Construction Permit and would not require treatment at a wastewater facility. Stormwater runoff during construction activities would be managed through compliance with the SWPPP and would not require additional commitment from the local wastewater provider. Therefore, no impacts to wastewater treatment providers would occur.

#### **Operation & Maintenance – No Impact**

The Proposed Project would replace and relocate existing electric transmission and power line facilities and add one new transmission line within existing transmission and power line corridors and franchise position within a City street. All proposed new and relocated facilities are located in existing SDG&E ROW that contain similar facilities that are currently operated and maintained, except for the new underground segment of 230 kV transmission line proposed in Segment B, which would have a very marginal effect on SDG&E's existing underground inspection and maintenance program. Upon completion of construction activities, the Proposed Project would operate unmanned. Operations and maintenance activities would not significantly increase in intensity, frequency, or duration with implementation of the Proposed Project and would be substantially similar to existing operations and maintenance activities. Therefore, the wastewater treatment provider that already serves the site would have adequate capacity to serve the Proposed Project's projected operation and maintenance demands, and no impacts would occur.

## 4.15.4.7 <u>Question 15f – Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?</u>

#### **Construction – Less than Significant Impact**

During construction activities, some waste and surplus soil would be generated due to poleremoval activities and general construction activities (i.e., personal waste generated by workers and personnel). This type of waste is anticipated to be minimal. The largest source of solid waste is anticipated to be excess soil and excavation from structure foundations and trenching associated with Segment B. Construction of the Proposed Project is anticipated to result in approximately 29,000 cubic yards of excess soil and excavated materials (including exported excess soil from grading and excavation).

If SDG&E qualified environmental staff determines that the material is nonhazardous and qualifies as non-impacted, the contractor would handle the waste in accordance with all federal,

state, and local regulations and dispose of the waste for recycling or permanent disposal. Treated wood products and all conductors, insulators, and other pole hardware would be recycled or disposed of as appropriate (refer to Table 3-9). The conductors, hardware, and insulators would be sent to a metal recycler. Excess soil from excavation of trenches or new pole installations may also be transported to a local recycling or appropriately permitted waste disposal facility if the soil is not re-used on-site or otherwise recycled. Note that excess soil would be re-used on-site wherever possible and only transported off-site as the final option.

A likely recipient for non-hazardous material that cannot be recycled is the Republic Services Otay Landfill (SWIS No. 37-AA-0010), a private facility with permitted capacity of 61,154,000 cubic yards (see Table 4.15-1, Capacity of Landfills Servicing the Proposed Project). Non-hazardous impacted soils could also be taken to the Republic Services Otay Landfill, where after acceptance at the landfill they would be recycled for alternative daily cover. The Republic Services Otay Landfill has approximately 24,514,000 cubic yards of capacity remaining as of March 2012, and is expected to be active until the year 2028. This landfill has adequate capacity to handle the minimal amount of unrecyclable waste that may be generated by Proposed Project construction. Ordinary construction restrictions have been incorporated into the Proposed Project (refer to Section 3.8); as a result, any associated impacts to landfills would be less than significant.

In addition, a relatively small amount of hazardous or otherwise regulated waste would be generated during construction and demolition activities. The hazardous and regulated waste would be disposed at either the WMI-Chemical Waste Management Kettleman Hills-B-18 Nonhaz Codisposal or Clean Harbors LLC Buttonwillow facilities. As illustrated in Table 4.15-1, the two hazardous waste disposal facilities have a remaining capacity of more than 6.0 million cubic yards and a daily throughput of 18,482 tons/day. This minimal amount of hazardous or otherwise regulated waste is anticipated to be easily accommodated by the existing landfills and, therefore, impacts in this regard would be less than significant.

Facility	Total Capacity (million cubic yards)	Remaining Capacity (million cubic yards)	Maximum Permitted Throughput (tons/day)
Landfill Class III			
Republic Services Otay Landfill	61.1	24.5 <sup>1</sup>	5,830
Total	61.1	24.5	5,830
Landfill Class I, II			
WMI-Chemical Waste Management Kettleman Hills-B18 Nonhaz Codisposal Landfill	10.7	6.0 <sup>2</sup>	8,000

 Table 4.15-1: Capacity of Landfills Servicing the Proposed Project

Facility	Total Capacity (million cubic yards)	Remaining Capacity (million cubic yards)	Maximum Permitted Throughput (tons/day)
Clean Harbors LLC Buttonwillow Landfill	14.3	Not Available <sup>3</sup>	10,482
Total	25.0	> 6.0	18,482

#### Table 4.15-1 (cont.): Capacity of Landfills Servicing the Proposed Project

Notes:

<sup>1</sup> Remaining capacity date: March 31, 2012.

<sup>2</sup>Remaining capacity date: October 4, 2000.

<sup>3</sup> Although the remaining capacity is not provided for the Clean Harbors LLC Buttonwillow Landfill, its closure date is anticipated to be 2040 and, therefore, it is assumed to have remaining capacity.

Source: *CalRecycle* (2013)

#### **Operation & Maintenance – No Impact**

The Proposed Project would replace and relocate existing electric transmission and power line facilities and add one new transmission line within existing transmission and power line corridors and franchise position within a City street. All proposed new and relocated facilities are located in existing SDG&E ROW that contain similar facilities that are currently operated and maintained, except for the new underground segment of 230 kV transmission line proposed in Segment B, which would have a very marginal effect on SDG&E's existing underground inspection and maintenance program. Once operational, the Proposed Project would not routinely generate waste, and waste generation would not differ substantially from current conditions. Therefore, no impacts would occur.

#### 4.15.4.8 Question 15g - Comply with federal, state, and local statutes and regulations related to solid waste?

#### **Construction – No Impact**

Construction of the Proposed Project is not anticipated to generate a substantial amount of solid waste. As analyzed in response to Question 15f, solid waste produced during construction would be disposed at the Republic Services Otay Landfill. Management and disposal of solid waste would comply with all applicable federal, state, and local statutes and regulations.

Similarly, waste generated by the demolition of the existing facilities would be properly disposed in accordance with all applicable federal, state, and local statutes and regulations. All treated wooden poles removed from the site would be properly handled, transported, and disposed at the Republic Services Otay Landfill or donated for reuse. In addition, any waste generated during construction and/or demolition that is hazardous or otherwise regulated by hazardous waste control laws would be handled and disposed according to applicable regulations. Hazardous and other regulated wastes are anticipated to be disposed at either the WMI-Chemical Waste Management Kettleman Hills Facility or at the Clean Harbors LLC Buttonwillow Landfill.

Refer to Section 4.7, Hazards and Hazardous Materials for more detailed information concerning anticipated hazardous wastes and potential impacts relating to the handling and disposal of such wastes. Thus, the Proposed Project would not violate any solid waste statutes or regulations.

#### **Operation & Maintenance – No Impact**

The Proposed Project would replace and relocate existing electric transmission and power line facilities and add one new transmission line within existing transmission and power line corridors and franchise position within a City street. All proposed new and relocated facilities are located in existing SDG&E ROW that contain similar facilities that are currently operated and maintained, except for the new underground segment of 230 kV transmission line proposed in Segment B, which would have a very marginal effect on SDG&E's existing underground inspection and maintenance program. Operations and maintenance activities would not significantly increase in intensity, frequency, or duration with implementation of the Proposed Project and would be substantially similar to existing operations and maintenance activities. Handling and disposal of all waste products associated with operation and maintenance activities will comply with all applicable statutes and regulations. Therefore, no impacts would occur.

#### 4.15.5 Project Design Features and Ordinary Construction/Operating Restrictions

Waste generated during construction, operation, and maintenance of the Proposed Project would be handled and disposed according to all applicable local, state, and federal regulations as well as SDG&E ordinary construction and operating restrictions (refer to Section 3.8). Adherence to applicable solid waste regulations and implementation of SDG&E ordinary construction and operating restrictions for solid waste handling would ensure that any potential impacts relating to solid waste are less than significant.

#### 4.15.6 Applicant Proposed Measures

The Proposed Project would not result in any significant adverse impacts relating to utilities and service systems and, therefore, no Applicant Proposed Measures are required.

#### 4.15.7 Detailed Discussion of Significant Impacts

Based on the preceding analysis, no significant impacts relating to utilities and service systems are anticipated from the Proposed Project.

#### 4.15.8 References

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- Clean Harbors. 2013. *Buttonwillow Landfill*. Online: <u>http://www.cleanharbors.com/locations/index.asp?id=53.</u> Site visited October 14, 2013.

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#### 4.16 CUMULATIVE IMPACTS

#### 4.16.1 Introduction

This section of the PEA discusses potential cumulative impacts related to the construction, operation, and maintenance of the Proposed Project. The purpose of the Proposed Project is to improve the reliability of the existing transmission system in the San Diego metropolitan area through the addition of a new 230 kV transmission line between the existing SDG&E Sycamore Canyon and Peñasquitos Substations, as described further in Section 2.0, Proposed Project Purpose and Need. As explained within Sections 4.1 through 4.15, no significant impacts were identified for the Proposed Project.

Potentially significant cumulative impacts are only anticipated to occur where the construction of the Proposed Project occurs concurrently with construction of other planned projects located in the immediate vicinity of the Proposed Project. APMs CUM-1 and CUM-2 have been included to minimize these impacts (see Section 4.16-10, Applicant Proposed Measures). These APMs, along with similar mitigation measures and regulatory requirements for the adjacent projects, would ensure that these impacts are minimized and remain less than significant.

The Proposed Project involves the installation of a new 230 kV transmission line and the consolidation of two existing 69 kV power lines onto new double-circuit, steel structures that would replace existing, predominantly wood structures. The Proposed Project is located within existing SDG&E ROW, where SDG&E currently maintains and operates existing electric power, distribution and substation facilities, and City of San Diego franchise position within Carmel Valley Road. Construction for the Proposed Project would take place entirely within SDG&E ROW, City of San Diego franchise position, and temporary staging yards located in the vicinity of the SDG&E ROW. No other planned SDG&E projects are expected to occur within this specific area.

Similarly, operation and maintenance of the Proposed Project would not be substantially different from existing, baseline conditions, and would be slightly less than baseline due to the increased reliability of the overall transmission system, the installation of fewer poles along the alignment, consolidation of existing lines on new structures, and the utilization of steel structures which require less maintenance than the existing wood structures. Therefore, the Proposed Project is generally not anticipated to contribute to any cumulatively significant impacts during operation and maintenance activities in any of the resource areas evaluated under CEQA.

#### 4.16.2 Significance Criteria

CEQA Guideline 15130(a)(1) defines a cumulative impact as one "which is created as a result of the project...together with other [past, present, and future] projects causing related impacts." Cumulative impacts refer to two or more individual effects which, when considered together, are considerable and cumulatively exceed the criteria established for each resource area as described in Sections 4.1 through 4.15 of the PEA. In such cases, the Proposed Project's contribution is

analyzed to determine whether it is cumulatively considerable. *CEQA Guidelines* Section 15064(h)(1) further explains that:

When assessing whether a cumulative effect requires an [Environmental Impact Report], the lead agency shall consider whether the cumulative impact is significant and whether... the project's incremental effect, though individually limited, is 'cumulatively considerable.

Applying this qualitative standard necessarily requires application of judgment based on the facts of a particular project subject to CEQA.

Further, the significance of an impact may be weighed against the overall effect as both increases and decreases in impacts may balance one another. As noted in the *CEQA Guidelines* Section 15064(h)4):

The mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable.

The PEA Checklist advises applicants to analyze past, present, and reasonably foreseeable future projects within the Proposed Project Area that have the potential to be proximate in space and time to the Proposed Project.

#### 4.16.3 Timeframe of Analysis

For the purpose of this cumulative impacts analysis, the Proposed Project is defined in terms of construction duration as well as post-construction operation and maintenance activities. SDG&E anticipates that construction of the Proposed Project would take a total of approximately twelve months, spanning from June 2016 through May 2017. Operation and maintenance of the Proposed Project would occur for the foreseeable future following the completion of construction.

#### 4.16.4 Area of Analysis

In accordance with *CEQA Guidelines* Section 15130(b), past, present, and planned/probable/reasonably foreseeable future projects located within one mile of the Proposed Project were reviewed in order to identify any projects that could, when combined with the Proposed Project, create a cumulatively considerable effect. The analysis of potential cumulative impacts was limited to within approximately one mile of the Proposed Project components because this distance was estimated to be the furthest that the Proposed Project impacts, if any, could extend.

#### 4.16.5 Methodology

Existing conditions and reasonably foreseeable projects were identified within a one-mile radius of each Proposed Project component. Information was gathered from internet searches of local planning department and state agency websites and correspondence with agency staff. The websites of the following entities were reviewed and/or these agencies contacted regarding

development projects, road and utility improvement projects, and capital investment/improvement projects:

- SDG&E,
- City of San Diego,
- City of Poway,
- County of San Diego,
- CPUC,
- CEC,
- CAISO,
- Caltrans, and
- MCAS Miramar.

#### 4.16.6 Existing/Operating Projects

The Proposed Project is generally surrounded by areas designated as Residential, Semi-Rural Residential, Rural (open space), and Public Agency Lands within the City of San Diego, City of Poway, County of San Diego and MCAS Miramar. Limited commercial development exists near Scripps Summit Drive, Rancho Peñasquitos Boulevard and two discrete segments along Carmel Mountain Road. Section 4.9, Land Use and Planning, outlines all of the specific existing land uses for the entire Proposed Project vicinity.

#### 4.16.6.1 <u>Potential Future SDG&E System Upgrades</u>

SDG&E currently has potential future system upgrades planned or contemplated within the general area of the Proposed Project, but not within the one-mile buffer. Currently, none of these system upgrade projects are anticipated to have overlapping construction with the Proposed Project. If any system upgrade projects develop the potential to overlap with the Proposed Project, coordination of construction will be undergone to reduce cumulative impacts and minimize overall disruption to adjoining land uses, as discussed within APM CUM-1.

#### 4.16.7 Foreseeable Projects Inventory

For the purposes of this document, "reasonably foreseeable" refers to projects that federal, state, or local agency representatives have knowledge of resulting from a formal application process. Table 4.16-1, Planned and Proposed Projects within One Mile of the Proposed Project Area, lists known projects that are within one-mile of the Proposed Project facilities with the potential to create cumulative impacts. A total of 27 such projects have been identified within one-mile of the Proposed Project, however, only five have been identified as having potentially overlapping construction with the Proposed Project. Figure 4.16-1, Foreseeable Projects Map, depicts the location of each project with respect to the Proposed Project components.

Projects are included that are located within one mile of the Proposed Project and are of sufficient size and type such that, when combined with the Proposed Project, there would be a potential for cumulative effects on the environment. For example, small-scale discretionary

projects like usage permit projects (such as liquor license applications) that are internal to an existing building or development and have no potentially significant impact to the environment, modifications to existing individual homes or businesses that do not result in any increases in noise, traffic, air emissions, etc. (i.e., architectural modifications to existing structures such as patios, decks, fences, and awnings), and site-specific residential developments (including swimming pools, backyard renovations, and second story additions), do not create incremental environmental impacts that, when added with the impacts from the Proposed Project, could potentially result in a cumulatively significant impact.

The following City of San Diego CIP Projects were determined to have potential overlap during construction, and as such constitute the main potential for cumulatively considerable adverse effects when considered with the Proposed Project:

- City of San Diego Residential Project Block 1Y (utility underground project);
- Del Mar Mesa Neighborhood Park (new park project);
- Torrey Highlands Community ID and Enhancement (road sign project);
- Torrey Highlands Neighborhood Park South (new park project); and
- South Creek Park Rain Garden (existing park drainage improvement project).

The remaining projects listed in Table 4.16-1 are generally not anticipated to have the potential to create cumulatively considerable adverse effects, and as such are not discussed in detail further herein.

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Map ID <sup>1</sup> and	Ducient Legation	Approximate Distance from the	Durble at Description (Size	Anticipate Constructio Schedule	
1. Interstate 5 North Coast HOV/Express	I-5 west of Peñasquitos (PQ) Substation	0.70 mile west of PQ Substation	The proposed improvements include two High-Occupancy Vehicle (HOV) Express Lanes, in each direction between La Jolla Village Drive in San Diego and Harbor Drive in Oceanside/Camp Pendleton. The	2013 (Phase I)	2020 (Phase I)
Lanes Project			project is currently in pre-construction and the Environmental Impact Report/Environmental Impact Statement was released to the public in Fall 2013. The project is expected to start in the southern end, closest to	2021 (Phase 2)	2030 (Phase 2)
			the Proposed Project. Phase I (2013-2020) of the project involves adding a HOV lane from La Jolla Village Drive to the I-5/I-805 merge. This merge occurs just outside of the 1 mile buffer zone, approximately 1.1 miles southwest of the PQ Substation. Phase II (2021-2030) involves adding a second HOV lane from the I-5/I-805 merge to SR-56, which lies mostly within the 1-mile buffer zone, but would occur well after the Proposed Project construction. Phase I Improvements	Phase I work is not planned within 1 mi of the Proposed Project.	
			scheduled for 2015 to 2018 occur along the northern route and only extend to as far south as Lomas Santa Fe Drive, approximately 4.75 miles north of the 1-mile buffer zone.	Phase II work is no planned to occur u 2021.	
2. Industrial CT Channel Replacement	Channel between I-5 and Sorrento Valley Road near Industrial Court	Approximately 0.82 mile west of PQ Substation	This project would replace the cement mortar lined drainage channel near Industrial Court to eliminate water splashing over the slope/embankment and prevent flooding of the commercial establishments adjacent to the channel. The project is currently in the design phase and is expected to be finished before the start of the Proposed Project.	September 2015	January 2016
3. Coastal Rail Trail	Sorrento Valley, west of the I-5	0.75 mile southwest of PQ Substation on west side of I-5	This project is currently in the alignment selection phase for an approximately 10 mile bikeway route generally following the existing railroad tracks from Sorrento Valley/Carmel Valley Road to Gilman	October 2015	August 2016
			Drive/I-5 intersection. A segment of the planned project lies within 0.75 mile of the PQ Substation in Sorrento Valley, west of the I-5. While the start of construction was originally scheduled to begin immediately following the planning phase to end in August 2016, the project is highly controversial with the adjacent community and no funding is secure for future phases, including anticipated construction. This project appears unlikely to occur, particularly during a timeframe that would overlap with the Proposed Project.	Planning P Start of Co Phase is ur	hase nstruction iknown.

Man ID <sup>1</sup> and		Approximate		Antic Const Sch	ipated ruction edule
Project Name	<b>Project Location</b> <sup>1</sup>	Proposed Project <sup>1</sup>	Project Description/Size	Begin	End
4. Residential Project Block 1Y <sup>2</sup>	Immediately southeast of I-5 – SR-56 interchange between El Camino Real and Carmel Creek Road	Southernmost portion of designated residential block lies 0.8 mile northwest of PQ Substation	This utility undergrounding project was included in the City of San Diego Program Master Plan 2009 that defines undergrounding projects within the City of San Diego. The project would underground existing utilities within two discrete residential areas near the I-5 and SR-56 interchange. The project would affect an estimated 83 customers and includes an estimated 13,987 feet of estimated trenches. Typical undergrounding projects take place in four phases (I. Trenching, II. Cabling, III. Cut-Overs, and IV. Pole Removal). Phase I & II operations are scheduled to coincide with the Proposed Project schedule.	June 2016	June 2018
5. Water & Sewer Group 965 (W)	Along Sorrento Valley Road, south of Carmel Mountain Road	Approximately 0.75 mile southwest of PQ Substation	This project plans to replace 4,960 linear feet of cement lined (CI), cast iron cement lined (CICL) and asbestos –cement (AC) water mains in CD 1 within the Torrey Pines Community along Sorrento Valley Road including Industrial Ct. and Tripp Ct. The project is currently in the design phase and is not expected to conflict with the Proposed Project Segment D construction activities.	August 2015	July 2016
6 (a-c). SDFD Station Alerting	<ul><li>(1) Torrey Hills,</li><li>(2) Carmel Valley and (3) Rancho Peñasquitos</li></ul>	(a) 0.2 mile west of PQ -Substation, (b) 0.5 mile west of existing and proposed TL (Segment C), and (c) 0.52 mile southwest of existing and proposed TL (Segment A).	The project consists of the replacement of the Fire In-Station Alerting System at fire stations within the City of San Diego. The current alerting system technology is 21 years old and is no longer in service forcing the department to rely upon a back-up system. Planned Alerting Systems that lie within one mile of the Proposed Project area are located at: (a) Torrey Hills Park, (b) Northwest corner of Carmel Valley Road and Rancho Santa Fe Farm Road intersection, and (c) Salmon River Road in Rancho Peñasquitos. The project would not conflict with the Proposed Project's schedule because it would be completed prior to when construction would begin on the Proposed Project.	February 2014	December 2015
7. Coast View Park	Off West Ocean Air Drive east of I-5	0.42 mile southwest of PQ Substation	A 1.05 acre mini park in the Torrey Hills Community is currently in the design phase and is to be constructed in 2015. The park would be open to the public during construction. Site amenities would include: children's play area, turf, par course, shade trellis and picnic tables. The project is not expected to conflict with the Proposed Project Segment D construction activities.	July 2015	June 2016

April 2014 4.16-6

Anticipated

Man ID <sup>1</sup> and		Approximate		Const Sche	ruction edule
Project Name	<b>Project Location</b> <sup>1</sup>	Proposed Project <sup>1</sup>	Project Description/Size	Begin	End
8. Torrey Hills SDG&E Easement Enhancement	Southwest corner of East Ocean Air Drive and Corte Mar Asombrosa	0.2 mile south southwest of PQ Substation	Project will provide for an enhancement of the easement area located under SDG&E power and transmission lines (TL 6906, 13804 and 675) within the Torrey Hills Maintenance Assessment District. The project is currently in the design phase is expected to be finished before the start of the Proposed Project.	October January 2015 2016	
9. Alta Del Mar Residential Development	Carmel Mountain Road and subsidiary residential streets	0.2 mile northwest of existing and proposed TL (Segment A) and adjacent to Staging Yard No. 4	Within the Del Mar Mesa community, approximately 136 estate and custom home sites are subdivided for residential development, referred to as Alta Del Mar by Pardee Homes. Construction on Belmont Trail Court began in 2012. Construction of new homes is continuously on-going as of 2014 and expected to be complete by late 2014. Currently, a potential staging area is planned for an unbuilt and graded area of the development, adjacent to SDG&E ROW, and pole installations (Structure Nos. P48 - P54) and removals (Structure Nos. R56 - R61) are in close proximity to the development. Potential impacts could exist if construction activities for both projects are on-going, assuming new home construction is still occurring through 2016. Construction within the Proposed Project timeframe is not expected, but remains possible as future development is unknown at this time.	Currently under construction and anticipated to complete by late 2014.	
10. Del Mar Mesa Neighborhood Park – Phase II <sup>2</sup>	Corner of Carmel Mountain Road and Duck Pond Lane	0.5 mile northwest of existing TL (13804 and 23004) and proposed TL within Segment C	The project consists of the construction of a 4-acre park to be consistent with the semi-rural ambiance of Del Mar Mesa with landscaping largely native in nature. Facilities would include a horse rest stop, basketball court, restrooms, parking, tot lot and open use grass field. The project is currently in the planning phase and construction is likely to overlap with the Proposed Project.	January 2016	November 2016
11. The Preserve at Del Mar	The Preserve Way	200 feet west of existing TL (13804 and 23004) and proposed TL within Segment C	Anticipated residential development is planned within this gated community that currently has 32 existing homes. Available unbuilt lots and custom build home sites are adjacent to the ROW Segment C, where reconductoring and stringing operations are planned. Additionally, a pole installation (Structure No. P43) and removals (Structure Nos. R49- R55) are planned for the adjacent area. Construction within the Proposed Project timeframe is not expected, but remains possible as future development is unknown at this time.	Currently under construction and anticipated to be complete by late 2014.	

#### Table 4.16-1 (cont.): Planned and Proposed Projects within One Mile of the Proposed Project Area

#### Anticipated Construction **Approximate** Schedule Map ID<sup>1</sup> and **Distance from the Project Name Project Location**<sup>1</sup> **Proposed Project**<sup>1</sup> **Project Description/Size** Begin End The project involves the installation of 0.14 mile of new 8" and 12" PVC 12. Rancho Immediately 0.4 mile west of February June Santa Fe Farm south of SR-56 at existing TL (13804 water main along the southern end of Rancho Santa Fe Farm Road to add 2014 2014 Road Water Rancho Sante Fe and 23004) and an additional water source to a dead end water system. The project is Main Farm Road proposed TL within expected to be finished before the start of the Proposed Project. Segment C 13. Carmel Carmel Valley Along proposed The project involved the construction of two additional travel lanes on November August Valley Road Road underground TL Carmel Valley Road in two increments. The first increment was along 2011 2013 Widening-Via the frontage of the Torrey Del Mar Development, while the second (Segment B) increment finished the remainder of the widening. This project is in the Abertura to post-construction phase and would not affect Proposed Project. Camino Del Sur 14. Maricel at Off Carmel 100 ft. south of A group of single family homes is currently being built by Davidson Currently under Communities within a small gated community of 41 homes. Future Torrey Valley Road and proposed construction and anticipated to be home construction is also planned for Carol Glen Court. All Highlands Chadamy Way underground TL construction is expected to be completed by end of 2014. Segment B complete by late 2014. 15. Torrey Carmel Valley Immediately This project would provide for community identification signing that November September adjacent to the would help differentiate Torrey Highlands from the adjacent areas of 2015 2016 Highlands Road Community ID Rancho Peñasquitos, Black Mountain/Santa Luz and Pacific Highland proposed and underground TL Ranch. Approximately 17 signs are planned along a 1.5 mile segment of Enhancement<sup>2</sup> (Segment B) through Carmel Vallev road between Via Albertura and Camino Del Sur. The existing Carmel installation of these signs could potentially overlap with the Proposed Valley Road Project (Segment B). Other signage is planned along Camino Del Sur (19 sites), Torrey Meadows Drive (5 sites) and Torrey Santa Fe Road (7 sites) that occur adjacent to the Torrey Santa Fe Staging Yard. The project is currently in the planning phase and construction activities are expected to overlap with the Proposed Project for approximately four months. 16. Camino Del Camino Del Sur 0.5 mile south of the The project constructs 2,550 feet of new 16-inch potable waterlines and February February Sur Water and SR-56: small connects several sections of existing water pipelines together. The 2013 2014 proposed project is currently in the post-construction phase and would not conflict **Pipeline Project** segment on underground TL with the Proposed Project's schedule. **Torrey Meadows** along Carmel Valley Drive Road (Segment B), and adjacent to Staging Area No. 5

#### Table 4.16-1 (cont.): Planned and Proposed Projects within One Mile of the Proposed Project Area

Man $ID^1$ and		Approximate Distance from the		Antic Const Sche	ipated ruction edule
Project Name	Project Location <sup>1</sup>	Proposed Project <sup>1</sup>	Project Description/Size	Begin	End
17. Torrey Highlands Neighborhood Park South <sup>2</sup>	Northside of Torrey Meadows Drive near SR-56	0.32 mile south of the proposed underground TL along Carmel Valley Road (Segment B)	The project involves the acquisition, design and construction of a 5-acre neighborhood park in Torrey Highlands adjacent to a proposed elementary school, including half-width street improvements and a comfort station. The project is currently in the design phase construction activities are expected to occur concurrently with the Proposed Project for approximately four months.	August 2015	September 2016
18. Recycled Water System Upgrades	Carmel Valley Road southwest of the intersection with Felson Road; Scripps Poway Parkway adjacent to the I-15	Intersects the proposed underground TL at Carmel Valley Road; 0.56 mile southwest of existing TL (13820/25, 23051 and 6920) and proposed TL (Segment A)	Nuisance water from multiple recycled water vaults is being discharged into municipal storm drains against State regulation. The project would bring the city into compliance by rerouting the reclaimed vault drains to the water waste system. The project occurs within the Proposed Project area at two locations: (1) crosses Carmel Valley Road within the proposed underground TL (Segment B), and (2) at Scripps Poway Pkwy., adjacent to the I-15. The project is currently under construction and would not overlap with the Proposed Project's schedule.	October 2012	January 2015
19. Rancho Peñasquitos Towne Centre Park Improvement	Salmon River Road and Paseo MontalBan	0.52 mile southwest of existing and proposed TL (Segment A)	The project provides installation of miscellaneous amenities to serve off- leash dog users, such as a group shade structure and dog drinking fountains at the park. The project is currently in the design phase and would not conflict with the Proposed Project's schedule.	September 2014	December 2014
20. Rancho Peñasquitos Library Roof Replacement	Off Salmon River Road just north of SR-56	0.6 mile southwest of existing and proposed TL (Segment A)	The project consists of a roof replacement due to fire prevention measures at the Rancho Peñasquitos Friends of the Library. The project is to begin construction in June 2014 and would not conflict with the Proposed Project's schedule.	June 2014	October 2014
21. Rancho Peñasquitos Skate Park Improvements	Carmel Mountain Road near Freeport Road	250 feet east of existing and proposed TL (Segment A)	The project provides for the replacement and upgrade of previously existing wooden skateboard ramps and installation of shade structures for park users. The project is currently in the bid and award phase and will not conflict with the Proposed Project's schedule.	March 2014	October 2014

Man ID <sup>1</sup> and		Approximate		Antic Const Sch	ipated ruction edule
Project Name	<b>Project Location</b> <sup>1</sup>	Proposed Project <sup>1</sup>	Project Description/Size	Begin	End
22. Peñasquitos North Trunk Sewer	Camto Anzio and segments on west side of I-15	0.9 mile northwest of existing and proposed TL (Segment A)	The project involves the replacement of 711 feet of 15-inch sewer main, 460 feet of 18-inch sewer main, slip-lining of 471 feet of 15-inch sewer main with 8-inch sewer main, and four trunk sewer point repairs. The project is currently in the planning phase and is not expected to conflict with the Proposed Project's schedule.	August 2017	September 2018
23. Ovation Upgrade at Peñasquitos Pump Station	Immediately south of the I-15 Poway Road interchange	0.1 mile southwest of existing and proposed TL (Segment A)	The project involves an upgrade of the existing control system to Ovation since the existing system has reached the end of its life cycle. This project is currently in the construction phase and is expected to be complete before the start of the Proposed Project.	August 2011	March 2016
24. Poway Road – Class I Bicycle Path	Poway Road east of I-15	0.1 mile northeast of existing and proposed TL (Segment A)	The project consists of the construction of a Class I Bicycle path with combined pedestrian and bicycle travel along the south side of Poway Road from the I-15/Poway Road interchange to Sabre Springs Pkwy., approximately 1,950 feet in length. The project is currently in the design phase and would not conflict with the Proposed Project's schedule.	May 2014	May 2015
25. South Creek Park Rain Garden <sup>2</sup>	Off Wicker Bay Cove near Springbrook Drive	0.6 mile northwest of Segment A	The project intends to construct a "rain garden" at the existing southwest corner of South Creek Park for the purpose of drainage improvements. The project would occur within a grassy area just to the left of the parking lot entrance and the purpose is to treat the runoff from the park and surrounding community. The two inlets (one in the cul-de-sac and one in the parking lot) would be reconfigured to divert runoff up to the 85 <sup>th</sup> percentile storm in to the rain garden instead of flowing in to the storm drain. Construction activities are expected to occur concurrently with the Proposed Project.	March 2016	August 2016
26. Scripps Ranch Reservoir Slope Repair and Bracket Replacement	Spring Canyon Road west of Cypress Canyon Park Drive	0.35 mile south southwest of existing and proposed TL (Segment A)	The project installs a 240-foot extension of the existing reservoir's 18" drain pipe, an energy dissipater at the drain pipe outlet, and the repair and stabilization of 2,600 square feet of hillside slope in Cypress Canyon. The project is in the construction phase and is expected to be complete before the start of the Proposed Project.	December 2013	August 2014

Man ID <sup>1</sup> and		Approximate		Antic Const Sche	ipated ruction edule
Project Name	Project Location <sup>1</sup>	Proposed Project <sup>1</sup>	Project Description/Size	Begin	End
27. Rancho Encantada Park II – 6AC	Off Stonebridge Parkway	Within Segment A ROW	This project provides for the development of approximately six acres for a neighborhood park to include active and passive uses, parking lot, playground, comfort station, and lighted ball fields. The park is already mostly completed as of late 2013, and phase II activities as of early 2014 include "punch list items and in turf establishment." Construction activities would be completed in early 2014 before the start of the Proposed Project.	Early 2013	April 2014

#### Notes:

<sup>1</sup>Refer to Figure 4.16-1 for locations of all of the projects listed in this table and locations relative to the Proposed Project facilities. Projects are numbered (MAP ID) as they occur from west to east along the Proposed Project Alignment as indicated on Figure 4.16-1. <sup>2</sup> These projects have a potential to combine with the Proposed Project to create a cumulative impact.

Sources: City of San Diego, SanGIS-Project Map Viewer, County of San Diego, City of San Diego GIS Project Map Viewer (Updated 2/01/2014), City of Poway; California Department of Transportation.

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~		Sycamore to Peñasquitos 230 kV Transmission Line Project
		Foreseeable Projects Map
P		Figure 4.16-1
2		Proposed Route     1-mile Project Buffer
		<ul> <li>1 - Interstate 5 North Coast HOV/Express Lanes Project</li> <li>2 - Industrial CT Channel Replacement</li> <li>3 - Coastal Rail Trail</li> </ul>
土		<ul> <li>4 - Residential Project Block 1Y</li> <li>5 - Water &amp; Sewer Group 965 (W)</li> <li>6 - SDFD Station Alerting</li> </ul>
o/sRd		<ul> <li>7 - Coast View Park</li> <li>8 - Torrey Hills SDG&amp;E Easement Enhancement</li> <li>9 - Alta Del Mar Residential Development</li> </ul>
en Rd		<ul> <li>10 - Del Mar Mesa Neighborhood Park - Phase II</li> <li>11 - The Preserve at Del Mar</li> <li>12 - Rancho Santa Fe Farm Road Water Main</li> </ul>
国		<ul> <li>13 - Carmel Valley Road Widening</li> <li>14 - Maricel at Torrey Highlands</li> <li>15 - Torrey Highlands Community ID and Enhancement</li> </ul>
Beeler		<ul> <li>16 - Camino Del Sur Water Pipeline Project</li> <li>17 - Torrey Highlands Neighborhood Park South</li> <li>18 - Recycled Water System Upgrades</li> </ul>
		<ul> <li>19 - Rancho Peñasquitos Towne Centre Park Improvement</li> <li>20 - Rancho Peñasquitos Library Roof Replacement</li> <li>21 - Rancho Peñasquitos Skate Park Improvements</li> </ul>
ge PH	s.mxd	<ul> <li>22 - Peñasquitos North Trunk Sewer</li> <li>23 - Ovation Upgrade at Peñasquitos Pump Station</li> <li>24 - Poway Rd – Class I Bicycle Path</li> </ul>
)	reseeableProject	<ul> <li>25 - South Creek Park Rain Garden</li> <li>26 - Scripps Ranch Res Slope Repair Bracket Replacement</li> <li>27 - Rancho Encantada Park II – 6AC</li> </ul>
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7	unriseSX2PQ\N	3/13/2014 2 3 Miles
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anyon	S:\SDGE_S	Service Layer Credits: SDG&E, 2013; TRC, 2013; Sources: Esri, DeLorme, HERE, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand),

Section 4.16 – Cumulative Impacts

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#### BACK OF FIGURE 4.16-1

#### 4.16.8 Potential Cumulative Impacts

This section of the PEA discusses potential cumulative impacts associated with the Proposed Project. As discussed in Section 4.16.2, cumulative impacts are those impacts that result from a combination of effects from the Proposed Project and other past, present, or planned, approved, or otherwise probable future projects. In order for cumulatively significant impacts to result, projects must generally share two factors in common; schedule and location. Thus, for cumulative impacts to occur, the Proposed Project must occur within the vicinity of other projects and be either constructed or operated at the same time, such that impacts associated with the project can combine for a net effect greater than either project taken individually. Projects that were not within one mile of the Proposed Project would not contribute to cumulative impacts and as such are not analyzed herein. As stated above, there were generally five identified projects that could reasonable result in cumulative considerable adverse effects, mainly due to location and potential overlaps during construction. These five projects are listed below:

- 4. City of San Diego Residential Project Block 1Y (utility underground project);
- 10. Del Mar Mesa Neighborhood Park (new park project);
- 15. Torrey Highlands Community ID and Enhancement (road sign project);
- 17. Torrey Highlands Neighborhood Park South (new park project); and
- 25. South Creek Park Rain Garden (existing park drainage improvement project).

Operation and maintenance of the Proposed Project would almost exclusively mirror existing operation and maintenance activities and as such there is considered to be very little potential for cumulative effects resulting from operation and maintenance of the Proposed Project.

The potential cumulative impacts are analyzed for the following resource areas:

- Aesthetics,
- Agriculture and Forestry Resources,
- Air Quality and Greenhouse Gases,
- Biological Resources,
- Cultural Resources,
- Geology, Soils and Mineral Resources,
- Hazards and Hazardous Materials,
- Hydrology and Water Quality,
- Land Use and Planning,
- Noise,
- Population and Housing,
- Public Services,
- Recreation,

- Transportation and Traffic, and
- Utilities and Service Systems.

For each of these resource areas, only the criteria for which a potential cumulative impact exists are discussed. Where there is no potential for the Proposed Project to create an adverse effect relating to an individual CEQA Appendix G criterion, no potential for cumulative effects were deemed possible and the particular criterion is not discussed. At the beginning of each subsection below, the specific criterion with no potential for impacts are listed. Where there is potential for adverse impact, the pertinent CEQA Appendix G significance criteria are discussed and the Proposed Project's contribution of any cumulatively considerable effects is analyzed.

No impacts were identified relating to the following CEQA Appendix G resource areas; therefore there is no discussion of potential cumulative impacts relating to these resource areas:

- Agriculture and Forestry Resources, and
- Land Use and Planning.

#### 4.16.8.1 <u>Aesthetics</u>

The Proposed Project would not have any impacts associated with the following CEQA Appendix G significance criteria relating to aesthetics or visual resources during construction or operations and maintenance:

• Substantial damage to scenic resources (Question 1b).

In addition, as outlined in Section 4.1, Aesthetics, there is no potential for impacts during operation and maintenance of the Proposed Project associated with the following CEQA Appendix G significance criteria:

• New sources of light or glare (Question 1d).

Therefore, there would be no potential for cumulatively considerable impacts associated with these significance criteria and the above listed criteria are not further discussed herein. The remaining aesthetics-related impacts are discussed below for construction, operation, and maintenance of the Proposed Project.

#### Construction

#### Substantial Adverse Effect on a Scenic Vista (Question 1a)

The Proposed Project is anticipated to have less than significant impacts during construction associated with adverse effects on scenic vistas. An undesignated scenic pull-out located along Calle Cristobal on the south rim of Los Peñasquitos Canyon is approximately one mile away from the Proposed Project and is barely visible at that distance. However, the limited number of identified projects in the vicinity of the Los Peñasquitos Canyon (Proposed Project Segment D) are not anticipated to have overlapping construction with the Proposed Project. Therefore, significant adverse cumulative impacts are not anticipated.

#### Overall Visual Character (Question 1c)

Construction of the Proposed Project is anticipated to have temporary, less than significant impacts on the overall visual character of surrounding areas. Similarly, the projects listed in Table 4.16-1 would also result in temporary impacts in this regard, mostly involving short-term visual impact effects to residents, motorists, and recreation users. Where construction of multiple projects overlap, and construction equipment and activities are visible within the same viewsheds, impacts would be cumulatively considerable. However, any resulting cumulatively considerable adverse impacts are not anticipated to be significant because construction of the Proposed Project would be mitigated through implementation of APMs where applicable (thereby minimizing the visual impact of Proposed Project construction), construction itself would be temporary, and there would be limited numbers of potential receptors because the aesthetic impact of each construction project is site specific, as described below.

With respect to the Torrey Highlands Community ID and Enhancement Project, constructionrelated equipment may be present on Carmel Valley Road and Camino Del Sur that could potentially add to temporary construction-related visual impacts to passing motorists and limited nearby residents if the activities overlap. Specific areas where construction could overlap would be on Carmel Valley Road during the installation of the underground transmission line and in the vicinity of the Torrey Santa Fe Staging Area off Camino Del Sur. As outlined in Section 4.1.5, the staging yard would be screened to reduce visual impacts during construction, and the area surrounding the staging yard is largely industrial in nature with a corresponding overall visual character that would not be subject to significant degradation due to the presence of construction activities, including the potential staging yard. Construction for this project is anticipated to be complete by September 2016, thus creating a potential construction overlap of 3 to 4 months with the Proposed Project. To minimize potential adverse cumulative effects that could occur due to this overlap, SDG&E shall coordinate with the City of San Diego CIP to ensure that construction activities for both projects would not occur concurrently at the same location (APM CUM-2). The Torrey Highlands Community ID project is therefore not expected to directly conflict with activities for the Proposed Project or create significant cumulative effects with respect to disruption of visual character. If needed, construction of Segment B of the Proposed Project could be started on the east end, thereby avoiding overlap should the Torrey Highlands Community ID project conflict with Proposed Project on the western end of Segment B.

Additionally, if construction activities for the Proposed Project and Torrey Highlands Neighborhood Park South physically overlap, the areas in which this cumulative project would be visible contains few viewers, namely nearby residents. Construction activities for this park are anticipated to be complete by September 2016, and while the project is expected to overlap with the Proposed Project for a four month period, it is are not expected to directly conflict with the Proposed Project.

While the following groups of projects identified in Table 4.16-1 could combine to create cumulatively considerable impacts to the overall visual character (due to the physical extent and location of construction activities), the Proposed Project construction would not substantially contribute to this effect because the Proposed Project is located at least 0.5 mile from each of the below listed groups of projects and, therefore, project construction is unlikely to be visible within a common viewshed with either of these groups of projects:

- 1. I-5 North Coast HOV/Express Lanes Project;
- 3. Coastal Rail Trail;
- 4. Residential Project Block 1Y;
- 5. Water & Sewer Group (965) (W);
- 10. Del Mar Mesa Neighborhood Park—Phase II; and
- 25. South Creek Park Rain Garden.

The majority of construction-related activities for the I-5 North Coast HOV/Express Lanes Project during Phase I (2013-2020) would occur within northern San Diego County only (north of SR-56) and no activities would be conducted within the segment of the I-5 Freeway near the Proposed Project. With respect to Del Mar Mesa Neighborhood Park, construction for Phase II is scheduled to occur from January through November of 2016. The park is located approximately 0.5 mile northwest of Proposed Project Segment D and a limited number of residences occur between the park and Proposed Project along Duck Pond Lane and Duck Pond Trail that could potentially be affected, although both projects would not be in the same viewshed. Site preparation, road construction, and foundation construction along Segment D are scheduled to start in October of 2016, thus construction activities are expected to overlap from October through November of 2016, although it is anticipated that construction within Del Mar Mesa Neighborhood Park would be mostly completed by the start of the Proposed Project Segment D construction activities. Therefore, construction of the Proposed Project is not anticipated to contribute to any significant cumulative adverse impacts relating to the overall visual character of the Proposed Project area.

#### New Light or Glare (Question 1d)

Construction of the Proposed Project is anticipated to have less than significant impacts relating to new light or glare (refer to Section 4.1, Aesthetics). No night time construction is planned and temporary security lighting may be installed at staging yards and would be directed on site and away from sensitive receptors; therefore, the potential for significant cumulative impacts is low. No other projects outlined in Table 4.16-1 occur within the immediate vicinity of the identified staging yards that could combine with the Proposed Project to create cumulatively considerable adverse effects relating to light and glare. Therefore, the Proposed Project is not anticipated to contribute to any cumulatively considerable adverse effects in this regard.

#### **Operation & Maintenance**

#### Substantial Adverse Effect on a Scenic Vista (Question 1a)

Operation and maintenance of the Proposed Project is anticipated to have less than significant impacts associated with adverse effects on scenic vistas. A scenic pull-out located along Calle Cristobal on the south rim of Los Peñasquitos Canyon is approximately one mile away from the Proposed Project and is barely visible at that distance. Thus, any changes from baseline conditions would be minimal. Additionally, recreational trail views from Los Peñasquitos Canyon Preserve would have no substantial change from existing views due to the Proposed Project. The two residential projects being constructed adjacent to the Proposed Project along Segments C and D (The Preserve at Del Mar and the Maricel at Torrey Highlands) could affect

views from the south side of Los Peñasquitos Canyon. However, the relatively incremental change that would result from the Proposed Project would not be anticipated to significantly increase the visual change created by the residential projects and any resulting cumulative effect is anticipated to be less than significant.

#### Overall Visual Character (Question 1c)

Operation and maintenance of the Proposed Project is anticipated to have less than significant impacts on the overall visual character of the surrounding area. The change from baseline would be an incremental visual effect within a visual setting where existing transmission structures of similar scale and appearance are visible. It is not expected that this change would create a substantial change in the visual landscape of the public. Segment B would be underground and not visible. The other Proposed Project components would be located within existing SDG&E ROW and utility corridors where non-utility development is extremely limited, generally to roadways, parks, and open space. One park project (Rancho Encantada Park II) outlined within Table 4.16-1 would be located within the Proposed Project Segment A ROW; however, routine maintenance or other activities associated with this park would not be anticipated to combine with the Proposed Project to create a significant adverse effect on the overall visual character of the area.

#### 4.16.8.2 <u>Air Quality and Greenhouse Gases</u>

The Proposed Project would not have any impacts associated with the following CEQA Appendix G significance criterion during construction or operations and maintenance:

• Compliance with Adopted GHG Plans, Policies, and Regulations (Question 3h).

The Proposed Project would not have significant impacts associated with the following CEQA Appendix G significance criterion during construction or operations and maintenance:

• Generate GHG emissions, either directly or indirectly (Question 3g).

In addition, as outlined in Section 4.3, Air Quality and Greenhouse Gases, there is no potential for impacts during operation and maintenance of the Proposed Project associated with the following CEQA Appendix G significance criterion:

- Compliance with Applicable Air Quality Plan (Question 3a),
- Violate Air Quality Standards (Question 3b),
- Cumulatively considerable net increase of any criteria pollutant (Question 3c),
- Exposure of Sensitive Receptors (Question 3d),
- Objectionable odors (Question 3e), and
- Diminish existing rule or future compliance requirement (Question 3f).

There would be no potential for cumulatively considerable impacts associated with these significance criteria, and the above listed criteria with no impacts are not further discussed
herein. The remaining air quality and GHG-related impacts are discussed below for construction, operation, and maintenance of the Proposed Project.

#### Construction

Construction of the Proposed Project is anticipated to result in less than significant short-term impacts to air quality standards, compliance with the RAQS and SIP, exposure of sensitive receptors to pollutant emissions, creation of objectionable odors, and generation of GHGs. The potential for cumulatively considerable effects relating to these significance criteria is discussed below.

### Compliance with the 2009 RAQS and SIP (Question 3a)

Construction of the Proposed Project would comply with all requirements and recommendations for construction equipment and fugitive dust control, and would result in emissions below all applicable thresholds and standards (refer to Section 4.3). The Proposed Project is therefore anticipated to have only less than significant impacts relating to compliance with applicable air quality plans. Moreover, the SDAPCD anticipated construction within its emissions budget and assumes that all projects under construction would comply with the applicable rules and regulations implemented to attain and maintain air quality standards. Therefore, it is reasonably anticipated that the projects outlined in Table 4.16-1 would also comply with all air quality applicable rules and regulations and as such there would be no cumulatively significant adverse effect on compliance with the applicable air quality plans. Therefore, no significant cumulatively considerable adverse effects are anticipated relating to compliance with the RAQS and SIP.

#### Air Quality Standards (Question 3b, 3c and 3f)

As stated above and within Section 4.3, Air Quality and Greenhouse Gases, emissions from construction of the individual segments of the Proposed Project would result in less than significant, short-term, temporary impacts relating to emission of criteria pollutants. Maximum daily emissions for the Proposed Project (simultaneous construction along all four Proposed Project segments) are also anticipated to be well below established significance thresholds (refer to Section 4.3 and Table 4.3-8).

The Proposed Project is not anticipated to result in cumulatively significant impacts relating to air quality and emissions of criteria pollutants, either. Table 4.16-1 lists reasonably foreseeable projects located within 1 mile of the Proposed Project. Some of the projects listed in Table 4.16-1 may result in short-term impacts to air quality during construction activities. Therefore, while construction of the Proposed Project is not anticipated to result in significant cumulative impacts to air quality, potential construction overlap with other nearby projects could be cumulatively considerable. Therefore, the potential for cumulative emissions within the immediate vicinity of the Proposed Project are discussed below.

In general, construction emissions thresholds are developed with respect to existing air basin air quality and with respect to the fact that air emissions can be cumulatively considerable throughout a given air basin. Because construction emissions thresholds are developed to account, in part, for the possibility of other simultaneous projects and because precise evaluation of all construction emissions throughout a given air basin is not feasible, the construction

significance thresholds are considered herein as an indicator of the potential significance of the Proposed Project's direct and cumulative effect on air quality.

Moreover, project design features and construction restrictions were identified for the Proposed Project to minimize potential impacts on air quality. As appropriate, SDG&E would implement air emission control measures and standard fugitive dust control practices during construction that specifically consider exhaust from construction equipment and worker vehicles, minimizing vehicle idling time, and controls for TACs including diesel particulate matter. The mobile fleets used in the Proposed Project are expected to be in full compliance with CARB adopted ATCMs to ensure pollutant emissions are minimized. All construction activities are subject to SDAPCD Rule 50, Visible Emissions; SDAPCD Rule 51, Nuisance; and SDAPCD Rule 55, Fugitive Dust Control. SDG&E's standard construction practices are consistent with the requirements of SDAPCD Rules 50, 51, and 55. Similarly, other nearby projects would be required to comply with local ordinances and regulations regulating air quality, including dust control during construction activities. Because the Proposed Project and each of the cumulative projects would implement procedures to limit air quality impacts, including fugitive dust control, localized effects would be limited to immediate areas only. This analysis conservatively considers localized effects to include areas within one mile of any given construction activity.

There are five projects located within 1 mile of the Proposed Project that could result in overlapping construction with the Proposed Project. This analysis considers whether the cumulative impacts of simultaneous construction activities that will occur within a mile of each other would be significant.

The South Creek Park Rain Garden project is within one mile of portions of Segment A and could result in a 2- to 3-month overlap in construction (June through August 2016) of Segment A. The South Creek Park Rain Garden project is considered to have a relatively low potential for air quality impacts because it is a small construction project. Maximum daily construction emissions along Segment A in year 2016 are well below significance thresholds (refer to Table 4.3-8). Therefore, the relatively small construction effect of Segments A, when added to the even smaller impact of South Creek Park Rain Garden construction, will not yield a cumulatively significant impact.

The Torrey Highlands Community ID project and the Torrey Highlands Neighborhood Park South project are within one mile of each other, and within one mile of Segments B and C. Both Torrey Highlands projects are scheduled to complete construction in September of 2016, and would therefore be towards the end of their construction activities when construction of Segments B and C within a mile of the nearby projects would begin in June 2016. For land development projects such as the Torrey Highlands Neighborhood Park project, heavy equipment usage (which corresponds to highest emission of criteria pollutants) would be completed early within the construction schedule and therefore prior to initiation of Proposed Project construction. The Proposed Project's maximum daily emissions along Segments B and C in year 2016 are well below significance thresholds (refer to Table 4.3-8), never exceeding 50 percent of any single criteria pollutant threshold. Therefore, the relatively small construction effect of Segment B and the relatively small site preparation effect of Segment C within one mile of the Torrey Highlands projects, when added to the small impacts of the Torrey Highlands projects, will not yield a cumulatively significant impact. The Del Mar Mesa Neighborhood Park project is within one mile of portions of Segment C and could result in overlapping construction with Segment C from September through November of 2016. The Del Mar Mesa Neighborhood Park project is scheduled to complete construction in November of 2016, and would therefore also be towards the end of its construction activities during potential overlaps with Section C construction. As stated above, for land development projects such as the Del Mar Mesa Neighborhood Park project, heavy equipment usage (which corresponds to highest emission of criteria pollutants) would be completed early within the construction schedule prior to initiation of Proposed Project construction. The Proposed Project's maximum daily emissions along Segment C in year 2016 are well below significance thresholds (refer to Table 4.3-8), never exceeding one fifth (or 20 percent) of any single criteria pollutant threshold. Therefore, the relatively small construction effect of Segment C within one mile of Del Mar Mesa Neighborhood Park, when added to the small impact of the Del Mar Mesa Neighborhood Park, will not yield a cumulatively significant impact.

The Residential Block 1Y (utility undergrounding) project is within one mile of Segment D (approximately 0.8 mile northwest of the Peñasquitos Substation). The Block 1Y project is currently scheduled to have construction occur concurrent with Segment D construction from October 2016 through May of 2017. The Proposed Project's maximum daily emissions along Segment D during the potentially overlapping construction are well below significance thresholds (refer to Table 4.3-8), never exceeding one fourth (or 25 percent) of any single criteria pollutant threshold. Assuming that the Block 1Y construction emissions are equal to the maximum daily emissions from the whole of the Proposed Project, the impact of Block 1Y construction, when added to the effect of Segment D construction within one mile of Block 1Y, will not yield a cumulatively significant impact.

As stated above, no significant cumulatively considerable adverse effects are anticipated.

# *Exposure of Sensitive Receptors (Question 3d)*

Although sensitive receptors were identified within a 1-mile radius of the Proposed Project's components, impacts to these receptors would be less than significant with implementation of SDG&E's standard construction practices which includes reducing idling time and implementing dust-control measures.

The Kids Bay Learning Center, located on Carmel Valley Road, approximately 72 feet from the Proposed Project Segment B, could experience a cumulatively adverse impact with respect to air pollution, as the private preschool also lies within the vicinity of the Torrey Highlands Community ID and Enhancement Project, which plans to install road signage on Carmel Valley Road near the school. However, the construction activities for this project are expected to be completed by September 2016, and due to the small construction footprint of this enhancement project and coordination with the City of San Diego CIP as discussed in APM CUM-2, no conflict with the construction of the underground transmission line along Carmel Valley Road is expected.

The undergrounding utility project referred to as Residential Project Block 1Y is scheduled to start construction in June of 2016, and lies approximately 0.8 mile northwest of the Peñasquitos Substation in Torrey Hills. Construction activities that would occur during the Proposed Project schedule would include trenching during the first nine to twelve months, followed by cabling.

This utility undergrounding project also lies within 0.5 mile of Ocean Air Elementary School, 0.7 mile from Torrey Hills Park, 0.15 mile of the SR-56 Bike Path, and directly adjacent (around 250 feet) to the San Diego Jewish Academy, and could potentially contribute to pollutant exposure to these listed sensitive receptors. While these groups of sensitive receptor sites identified in Table 4.3-6 could be temporally impacted with respect to pollutant exposure due to this project, it is not expected to combine to create cumulatively considerable impacts to the substantial pollutant exposure to sensitive receptors, as the Proposed Project construction would not substantially contribute to this effect because the Proposed Project is located at least 0.5 mile from each of these listed groups of projects with the exception of Torrey Hills Neighborhood Park.

In addition, emissions for the Proposed Project would be minimized through project-level and regional compliance with the SDAPCD's rules and regulations for controlling construction-related emissions. Therefore the potential for increased, cumulative adverse effects to sensitive receptors is considered to be low. Impacts, if any, would be less than significant.

### *Objectionable Odors (Question 3e)*

Construction of the Proposed Project is anticipated to have less than significant impacts associated with the emission of objectionable odors. Typical odor nuisances include emissions of substances such as hydrogen sulfide, ammonia, chlorine, and other sulfide-related compounds. No substantial sources of these pollutants would exist during construction of the Proposed Project, and none of the projects identified in Table 4.16-1 are likely to result in the emission of any of these substances during construction or operation, because none of them are the type of project that typically use these strong odor-producing compounds. Construction equipment and construction operations for the Proposed Project and the cumulative projects would emit trace pollutants that could be considered to have objectionable odors, such as diesel exhaust. However, these odors would be temporary and limited in nature, and are localized in effect, even where construction of the Proposed Project would occur simultaneously with other projects. Where construction of the Proposed Project is nearest to potential receptors for objectionable odors (near the Peñasquitos Substation) there are no other planned or likely foreseeable projects that could potentially contribute to cumulatively considerable adverse effects. Therefore, no cumulatively considerable adverse effects are anticipated relating to objectionable odors. Impacts, if any, would be less than significant.

#### Greenhouse Gas Emissions (Question 3g)

The Proposed Project would result in GHG emissions during construction, specifically relating to fossil fuel combustion. These emissions would be below the County of San Diego's and SCAQMD's threshold of 10,000 metric tons of carbon dioxide equivalents annually for industrial projects. Impacts are therefore anticipated to be less than significant.

All GHG emissions can be considered to have a cumulative effect, and potential cumulative impacts associated with GHG emissions can be considered a state-wide effect. Existing thresholds were developed with this in mind. While construction of the Proposed Project could combine with construction of other projects, cumulative emissions would not likely result in total GHG emissions that could exceed the threshold (note that the Proposed Project's amortized GHG emissions represent less than 1 percent of the GHG threshold of 10,000 metric tons), and

any cumulative impacts would not substantially hinder the long-term reduction of GHG emissions within the State of California. Therefore, cumulative effects are less than significant.

#### **Operation and Maintenance**

#### *Greenhouse Gas Emissions (Question 3g)*

Operation and maintenance activities would generate a minor amount of GHG emissions from vehicles and/or equipment used to inspect and maintain the facilities. However, this effect would mirror current conditions whereby the majority of the alignment is already operated and maintained by existing SDG&E employees and equipment. Required operation and maintenance activities would actually decrease for the majority of the Proposed Project alignment as existing wood structures are being replaced by steel structures which require less maintenance activities.

The Proposed Project emissions were calculated to be well below the SCAQMD's GHG significance threshold for industrial projects (refer to Section 4.3). Additionally, the Proposed Project will comply with applicable rules and regulations following SDG&E's design and operational features to decrease GHG emissions.

Some of the projects listed in Table 4.16-1, such as the I-5 North Coast HOV/Express Lanes project and the small scale residential development projects, would induce limited future population growth or development. The Proposed Project, however, would not induce this growth or development and would therefore not result in increased GHG emissions from growth or development. In conclusion, any cumulative impacts to air quality and GHGs during operation and maintenance of the Proposed Project are anticipated to be less than significant.

#### 4.16.8.3 <u>Biological Resources</u>

The Proposed Project would not have any impacts associated with the following CEQA significance criteria relating to biological resources during construction or operations and maintenance:

- Conflict with local policies and ordinances (Question 4e), and
- Conflict with adopted habitat conservation plans (Question 4f).

In addition, the Proposed Project would not have any impacts during operation and maintenance activities. Therefore, there is no potential for cumulative impacts associated with these significance criteria or operation and maintenance of the Proposed Project. The remaining biological resources-related impacts are discussed below for construction of the Proposed Project.

# Construction

# Impacts to Protected Species, Habitats, Wetlands, or Species Movement/Migration<sup>1</sup> (Question 4a through 4d)

Construction of the Proposed Project is anticipated to have less than significant impacts relating to state and federally listed species, protected habitats, and species movement and/or migration. Impacts to native vegetation communities resulting from the construction of transmission and power lines, access roads, other support facilities, and temporary construction areas can be cumulatively significant when assessed with other projects in the vicinity. As illustrated in Table 4.16-1, there are 27 projects that are either within a one-mile radius of the Proposed Project or large enough to have a regionally significant impact. However, impacts to biological resources associated with the Proposed Project would be avoided, minimized or mitigated through implementation of Project Design Features and Ordinary Construction/Operating Restrictions, and an APM (refer to Section 4.4.5). Specifically, the SDG&E Subregional NCCP, SDG&E QCB HCP, and APM BIO-1, Special-Status Plant Species would ensure that impacts to biological resources would be less than significant. SDG&E would avoid and minimize any impacts according to the SDG&E Subregional NCCP Section 7.1, Operational Protocols and 7.2, Habitat Enhancement Measures, as well as all other conditions outlined in the Proposed Project permits. With the implementation of the SDG&E Subregional NCCP Operational Protocols and prior approvals, all permanent and temporary impacts are expected to remain less than significant.

The Proposed Project would permanently impact approximately 4.50 acres of sensitive vegetation communities. Consistent with the *SDG&E Subregional NCCP*, the Proposed Project has been designed to avoid impacts to wetlands and non-wetland waters and sensitive vegetation communities when possible by placing poles outside of drainage areas, using existing access roads to the greatest extent possible, and placing any new facilities, staging areas, or access roads outside native vegetation communities, when feasible. Where sensitive resources are located within or adjacent to temporary work areas, such features would be avoided, to the extent feasible. The areas of permanent impacts from poles or new access roads do not occur all in one place but rather are spread across the length of the transmission line in locations that are predominantly undeveloped and therefore continue to have substantial acreage of land available for biological resources and wildlife migration despite the Proposed Project's impact. In addition, permanent impacts will be mitigated in accordance with the *SDG&E Subregional NCCP* by withdrawing credit from the SDG&E mitigation bank at prescribed ratios.

Cumulative impacts within a region are most effectively minimized by comprehensive plans that address the impacts of regional growth on wildlife and its habitats. SDG&E has developed and implemented a regional, multi-species conservation program within its southern California range, known as the *SDG&E Subregional NCCP*. The *SDG&E Subregional NCCP* was developed in accordance with the California NCCP Act to avoid, minimize, and mitigate for regionally cumulative impacts to biological resources. Impacts to sensitive habitat are fully addressed through the *SDG&E Subregional NCCP*; therefore the Proposed Project's impacts to sensitive

<sup>&</sup>lt;sup>1</sup> Consistent with the discussion of permanent impacts to vegetation and habitat in Section 4.4, Biological Resources, potential permanent cumulative impacts resulting from construction of new facilities are discussed within the Construction impacts section to provide consistency with implementation of the *SDG&E Subregional NCCP*, which addresses avoidance and minimization measures for biological resources.

habitat would not be significant. Implementation of operational protocols in the *SDG&E Subregional NCCP* would ensure that any other cumulative impacts to biological resources would not be significant. Similarly, all other projects listed in Table 4.16-1 would be required to mitigate any impacts to state and federally listed species and/or habitats through compliance with Federal ESA, CESA, CWA, and applicable local habitat conservation plans. Therefore, any impacts to biological resources from other projects listed in Table 4.16-1 would also be mitigated, and as such, cumulatively considerable impacts to biological resources would be less than significant.

# 4.16.8.4 <u>Cultural Resources</u>

Operation and maintenance of the Proposed Project is not anticipated to have impacts on cultural resources. Therefore, no cumulative impacts would result from this significance criterion for operation and maintenance of the Proposed Project. The remaining cultural resources-related impacts are discussed below for construction of the Proposed Project.

#### Construction

Construction of the Proposed Project is anticipated to have less than significant impacts relating to cultural and paleontological resources (refer to Section 4.5, Cultural Resources) and less than significant impacts to human remains. The Proposed Project has been designed to avoid known cultural resources and project design features as well as APMs CUL-1 to CUL-6 would ensure that any potential impacts relating to unanticipated discovery would be less than significant. For construction projects that occur within undisturbed soil units, potentially significant impacts to buried cultural resources can occur. Potential impacts can also occur where historic, cultural, and paleontological resources have been identified.

Nine of the proposed pole/work area locations are in the vicinity of identified cultural resources and an additional 15 poles and six work areas are proposed in areas of high sensitivity for buried cultural deposits. Excavation of holes and underground trenches could potentially impact unidentified archaeological resources. Eight previously recorded paleontological sites are also known to exist within the Proposed Project Area. The implementation of APMs CUL-7 and CUL-8 would ensure that possible potential impacts would remain less than significant.

As illustrated in Table 4.16-1, there are 27 projects that are within a one-mile radius of the Proposed Project and are potentially large enough to have a regionally significant impact. However, impacts to cultural resources are site-specific, and as such are not expected to combine with the development of other projects to cumulatively increase the risk of impacting historic or prehistoric archaeological or paleontological resources or human remains. Potential impacts are evaluated on a case-by-case basis. The Proposed Project is designed to avoid known cultural resources and includes APMs to ensure impacts to any cultural resources within the Proposed Project area are less than significant. As such, the Proposed Project's contribution to cumulative impacts related to cultural resources would be less than significant.

#### 4.16.8.5 <u>Geology, Soils, and Mineral Resources</u>

The Proposed Project would not have any impacts associated with the following CEQA Appendix G significance criteria relating to geology, soils, and mineral resources during construction or operations and maintenance:

- Alquist-Priolo Earthquake Faults (Question 6a[i]),
- Soils incapable of supporting septic system use (Question 6e), and
- Loss of mineral resources (Questions 6f and 6g).

In addition, as outlined in Section 4.6, Geology, Soils and Mineral Resources, there is no potential for impacts during operation and maintenance of the Proposed Project associated with the following CEQA Appendix G significance criterion:

- Substantial soil erosion or loss of topsoil (Question 6b), and
- Located on expansive soil (Question 6d).

Therefore, there would be no potential for cumulatively considerable impacts associated with these significance criteria and the above listed criteria are not further discussed herein. The remaining geology, soils and mineral resources impacts are discussed below for construction, operation, and maintenance of the Proposed Project.

#### Construction

#### Seismic and Geologic Hazards (Question 6a[ii] through 6a[iv])

Construction of the Proposed Project is anticipated to have less than significant impacts relating to seismic and geologic hazards (refer to Section 4.6, Geology, Soils, and Mineral Resources). Potential geologic hazards, such as seismic shaking, liquefaction, and landslides, could adversely affect the Proposed Project, as well as most of the projects listed within Table 4.16-1. However, these potential impacts are largely avoided through adherence to project design features and engineering standards, which are generally applicable to all of the projects listed in Table 4.16-1 (note that SDG&E projects are not subject to the same standards as private development projects, however, all projects would be designed to account for geologic hazards). Furthermore, construction activities are short-term, and workers are not exposed to potential risks for long periods of time (i.e., only during work hours). Finally, construction activities would not occur at the same site, thereby reducing the probability that multiple construction crews (i.e., from different projects) would be exposed to the same potential risks during construction activities at one location. Therefore, any potential cumulative impacts would be less than significant.

#### Soil Erosion and Loss of Topsoil (Question 6b)

Construction of the Proposed Project would have less than significant impacts relating to soil erosion and loss of topsoil. None of the projects outlined in Table 4.16-1 that are planned to occur concurrently with the Proposed Project could result in similar impacts during construction activities. Specifically, the Torrey Highlands Community ID and Enhancement project involves very minimal surface disturbance during identification signage installation near existing roadways, while construction for the planned Torrey Highlands Neighborhood Park South is being constructed in a previously graded area adjacent to recent residential development. While these projects are not likely to have impacts relating to soil erosion and loss of topsoil in the immediate vicinity of the Proposed Project, all of these projects (including the Proposed Project) would be subject to NPDES requirements, including the preparation of a SWPPP. Adherence to

NPDES requirements and erosion control BMPs included within the SWPPPs would ensure that the cumulative effects from the combined projects would be less than significant.

#### **Operation and Maintenance**

#### Seismic and Geologic Hazards (Question 6a[ii] through 6a[iv])

Operation and maintenance of the Proposed Project is anticipated to have less than significant impacts relating to seismic and geologic hazards (refer to Section 4.6, Geology, Soils, and Mineral Resources) and activities for the Proposed Project would be similar to baseline conditions. Potential geologic hazards, such as seismic shaking, liquefaction, and landslides, could adversely affect the Proposed Project, as well as most of the projects listed within Table 4.16-1. However, these potential impacts are largely avoided through adherence to design and engineering standards, which are applicable to all of the projects listed in Table 4.16-1. Therefore, any potential cumulative impacts would be less than significant.

#### 4.16.8.6 <u>Hazards and Hazardous Materials</u>

The Proposed Project would not have any impacts associated with the following CEQA significance criteria relating to hazards and hazardous materials during construction or operations and maintenance:

- Sites listed pursuant to Government Code Section 65962.5 (Question 7d),
- Airport land use plans (Question 7e), and
- Private airstrip safety hazards (Questions 7f).

In addition, as outlined in Section 4.7, Hazards and Hazardous Materials, there is no potential for impacts during operation and maintenance of the Proposed Project associated with the following CEQA Appendix G significance criteria:

- Routine Transport and Handling of Hazardous Materials and Waste (Question 7a and 7b),
- Hazardous Emissions within one-quarter mile of school (Question 7c),
- Section 65962.5 listed sites (Question 7d),
- Airport land use plans (Question 7e),
- Private airstrip safety hazards (Questions 7f), and
- Fire Hazards (Question 7h).

Therefore, there would be no potential for cumulatively considerable impacts associated with these significance criteria and the above listed criteria are not further discussed herein. The remaining hazards and hazardous materials-related impacts are discussed below for construction, operation, and maintenance of the Proposed Project.

# Construction

#### Routine Transport and Handling of Hazardous Materials and Wastes (Question 7a and 7b)

The Proposed Project would result in less than significant impacts associated with the routine handling and transport of hazardous materials as well as for potential accident or upset conditions. Any other similar potential hazardous materials impacts associated with the projects outlined in Table 4.16-1 would similarly be minimized through adherence to existing regulations. SDG&E, and all contractors involved in the construction of the Proposed Project, would implement standard operational procedures to ensure that potential impacts resulting from hazardous material transport, use, storage and disposal remain less than significant. None of the projects outlined within Table 4.16-1 are likely to involve large-scale utilization of hazardous or acutely hazardous substances (such as chemical plants, refineries, or heavy manufacturing) and as such the possibility of a cumulatively considerable threat from the routine transport or reasonably foreseeable accident or upset conditions involving these hazardous materials is considered to be less than significant.

#### Hazardous Emissions within 0.25 Mile of a School (Question 7c)

The Proposed Project would result in less than significant impacts related to hazardous emissions within 0.25 mile of a school. Construction of the transmission line (overhead and underground segment within Carmel Valley Road [Segment B]) would include the handling and use of common hazardous materials such as fuels and lubricants, and while the potential for upset conditions to cause a release of these materials does exist, the chances of an upset or accident condition resulting in a substantial hazard to the public or the environment due to a hazardous material release is considered low. With the implementation of standard operational procedures as well as BMPs, construction of the Proposed Project is not expected to result in the release of hazardous emissions, or hazardous materials in the vicinity of any sensitive receptors including schools.

The Torrey Highlands Community ID and Enhancement project, outlined within Table 4.16-1 has the potential to create cumulatively considerable adverse effects with respect to hazardous emissions within 0.25 mile of a school, although, the minimal ground disturbance footprint associated with this project is expected to be negligible compared to the Proposed Project and the combination of the projects is not anticipated to create a substantial threat or cumulative emission source at local schools. Both the Kids Bay Learning Center and Adobe Bluffs Elementary School (200 feet and approximately 0.25 mile, respectively) are located within 0.25 mile of this City of San Diego project and the Proposed Project. Construction activities consisting of excavation vaults and trenching for the Proposed Project on Carmel Valley Road are scheduled to begin in June 2016, and would overlap with Torrey Highlands Community ID and Enhancement project construction until September of 2016 for a three to four month period. Any potential cumulative effects that could occur due to this overlap of construction would be minimized through coordination efforts with the City of San Diego CIP to limit overlapping construction activities at the same locations to reduce hazardous emissions as described in APM CUM-2. Additionally, the planned Torrey Hills utilities undergrounding project (Residential Project Block 1Y) would occur within 0.25 mile of the San Diego Jewish Academy, although no potential cumulative impacts would be applicable as this private school is more than a mile from

the Proposed Project. Therefore, no significant cumulatively considerable adverse effects are anticipated relating to hazardous emissions near a sensitive receptor.

#### *Emergency Response and Evacuation (Question 7g)*

The Proposed Project would not interfere with any emergency plans. Refer to discussion for cumulative impacts associated with traffic and transportation under Section 4.16.8.10 (Transportation and Traffic) below.

With traffic management practiced in accordance with City of San Diego requirements and no expected complete road closures, impacts on emergency response or emergency evacuation routes from the Proposed Project would be less than significant. Temporary construction with appropriate traffic controls would occur as needed for installation of Proposed Project facilities. Emergency response planning would not be impacted during construction as streets would remain open to emergency vehicles throughout construction. Temporary lane closures would be needed for underground transmission line construction in Carmel Valley Road (Segment B). The emergency response plan, with respect to potential traffic delays could be impacted if construction activities for both the Proposed Project and the Torrey Highlands Community ID and Enhancement project were on-going at the same locations during the potential period of overlap (June through September of 2016). However, any potential cumulative effects that could occur due to this overlap of construction for both projects does not directly coincide as described in APM CUM-2. Thus, no significant, cumulative adverse effects are anticipated relating to emergency response and evacuation.

#### Fire Hazards (Question 7h)

Construction of the Proposed Project is anticipated to have less than significant impacts relating to fire hazards (refer to Section 4.7, Hazards and Hazardous Materials). Construction of the Proposed Project through vegetated areas, including areas designated as Very High Fire Threat Zones, could be cumulatively considerable with other projects that would involve construction in the same areas. The projects outlined in Table 4.16-1 are either not located in heavily vegetated areas or are not in the immediate vicinity of the Proposed Project construction areas. During construction activities, workers would follow the *SDG&E Fire Prevention Plan, Electric Standard Practice 113.1*, and the project-specific fire prevention plan, to ensure that the risk of a fire event during construction of the Proposed Project is minimized. With respect to potentially cumulatively considerable impacts resulting from construction of the Proposed Project and the projects outlined in Table 4.16-1, impacts would be less than significant because appropriate fire measures would be implemented during construction activities for any of the listed San Diego CIP projects, SDG&E related-projects (undergrounding of utilities) or residential development projects (Alta Del Mar, etc.) within the city limits.

#### **Operation & Maintenance**

#### *Emergency Response and Evacuation (Question 7g)*

The Proposed Project would result in very minimal disruption of traffic (which could affect emergence response and evacuation) along Segment B. This effect is considered to be very minor due to the very infrequent nature of scheduled maintenance of the splice vaults located

along Segment B, and the established process for within city streets (traffic control plans) that minimize the adverse effect of work occurring with roadways. None of the projects listed within Table 4-16.1 are anticipated to cumulatively increase the severity of this effect. Therefore, any cumulative effect would remain less than significant. All other operation and maintenance activities (Segments A, C, and D) would mirror existing activities and would therefore not contribute to any cumulative increase in adverse effects on emergency response and evacuation.

### 4.16.8.7 <u>Hydrology and Water Quality</u>

The Proposed Project would have no potential for impacts associated with the following CEQA significance criteria relating to hydrology and water quality during construction or operations and maintenance:

- Substantial depletion of groundwater (Question 8b),
- Placement of housing within 100-year flood hazard area (Question 8g),
- Placement of structures within 100-year flood hazard area (Question 8h), and
- Exposure of people or structures to flooding (Question 8i).

In addition, as outlined in Section 4.8, Hydrology and Water Quality, there is no potential for impacts during operation and maintenance of the Proposed Project associated with the following CEQA Appendix G significance criteria:

- Effects on existing drainage patterns (Question 8c and 8d),
- Runoff water (Question 8e),
- Substantially degrade water quality (Question 8f), and
- Exposure of people or structures to seiche, tsunami, or mud flow (Question 8j).

Therefore, there would be no potential for cumulatively considerable impacts associated with these significance criteria or with operation and maintenance of the Proposed Project. The remaining hydrology and water quality-related impacts are discussed below for construction of the Proposed Project.

#### Construction

#### Stormwater, Erosion and Water Quality (Question 8a, 8e, 8f)

Construction of the Proposed Project would result in less than significant impacts to water quality standards, stormwater, and erosion. While construction of the Proposed Project has the potential to cause detrimental impacts to water quality, these potential adverse effects are minimized by complying with existing regulations, including NPDES and stormwater control regulations, and by implementing guidance and BMPs presented in the project-specific SWPPP and *SDG&E BMP Manual*. Additionally, the Proposed Project would comply with the Construction General Permit (SWRCB Order No. 2012-0006-DWQ) and would require implementation of BMPs to prevent degradation of water quality from stormwater runoff and other non-stormwater permitted discharges. No other discharges to surface or ground water are anticipated during construction.

The projects listed in Table 4.16-1 would have a similar potential to degrade water quality during construction, but these projects would also be subject to existing water quality and stormwater regulations and would also generally be considered to have less than significant impacts on water quality. The roadway improvement project (I-5 North Coast HOV/Express Lanes) listed in Table 4.16-1 could result in adding elevated levels of pollutants to the surface water drainage system from stormwater runoff from new or expanded roadways. However, no construction activities during Phase I of this project would occur within the I-5 corridor west of the Peñasquitos Substation that falls within the one-mile buffer zone for the Proposed Project. In addition, construction of the Proposed Project would not substantially contribute to this effect because it would not increase the amount of impermeable surfaces.

None of the projects outlined in Table 4.16-1 that occur concurrently with the Proposed Project would likely involve direct discharges to surface waters that could result in significant adverse effects to surface water quality. As such, no cumulatively considerable effects are anticipated. Overall, the Proposed Project is not anticipated to contribute to any cumulatively considerable adverse effects on water quality, and, should limited construction overlap occur, impacts are not anticipated to be significant.

### Drainage Patterns (Question 8c and 8d)

Construction of the Proposed Project would not result in substantial effects to the existing drainage patterns within the Proposed Project area. Impacts are therefore anticipated to be less than significant. BMPs would be implemented during construction to contain sediment and protect water quality. Limited grading and earth-moving activities during construction is designed to return runoff to existing drainage patterns without increasing runoff, and no grading within creeks or drainages would occur that could alter flow. The Proposed Project would therefore not result in significant adverse effects in this regard.

Some of the projects listed in Table 4.16-1 would alter existing drainage patterns and drainages within the Proposed Project area: I-5 North Coast HOV/Express Lanes, planned utilities undergrounding in Torrey Hills (Residential Project Block 1Y), and the South Creek Park Rain Garden. However, the Proposed Project does not include new impermeable surfaces that would substantially increase surface flow and would not actually impact existing drainages. The Proposed Project is therefore not anticipated to substantially contribute to any cumulatively considerable adverse effect on the existing drainage pattern or surface flow.

# Mudflow Effects (Question 8j)

Some of the slopes adjacent to Los Peñasquitos Creek and other locations are shown in the Multi-Jurisdictional Hazard Mitigation Plan to be prone to landslides. BMPs would include measures to minimize disturbance to soils and stabilizing of disturbed areas, which would minimize the likelihood of construction contributing to the potential for mudflows. With the implementation of BMPs, the risk that the Proposed Project would contribute to the occurrence of mudflows or be affected by a mudflow is less than significant. None of the projects outlined within Table 4.16-1 occur within these landslide prone areas located within SDG&E ROW to cause an adverse cumulative impact. Thus, the Proposed Project is not anticipated to contribute to any cumulatively considerable adverse effects relating to the exposure to a potential mudflow.

#### **Operation and Maintenance**

#### Water Quality (Question 8a)

Operation and maintenance of the Proposed Project is anticipated to have less than significant impacts to water quality. The Proposed Project would generally require less operations and maintenance activities due to the smaller project footprint and increased transmission line reliability. However, marginal changes from baseline conditions include an increase in SDG&E's annual inspection requirements along the underground transmission line segment within Carmel Valley Road (Segment B) and new maintenance pads and spur roads that would require regular maintenance, although these new maintenance pads and spur roads would only marginally increase current requirements. Potential adverse effects on water quality during operation and maintenance of the Proposed Project would be controlled by complying with existing water quality regulations, such as the SPCC regulations, and implementing the *SDG&E BMP Manual*.

Operations and maintenance effects on water quality would not represent a substantial change, if any, from existing conditions. No other projects would cause a significant impact with respect to operation and maintenance of the Proposed Project, and therefore, it is not anticipated to contribute to cumulatively considerable adverse impacts to water quality.

#### 4.16.8.8 <u>Noise</u>

The Proposed Project would not have any impacts associated with the following CEQA Appendix G significance criteria relating to Noise during construction or operations and maintenance:

- Effects associated with public airports (Question 10e), and
- Effects associated with private airports (Question 10f).

The Proposed Project would not have any impacts associated with the following CEQA Appendix G significance criteria relating to Noise during construction:

• Substantial permanent increase in ambient noise (Question 10c).

In addition, as outlined in Section 4.9, Noise, there is no potential for impacts during operation and maintenance of the Proposed Project associated with the following CEQA Appendix G significance criteria:

- Exposure to noise levels in excess of applicable standards (Question 10a), and
- Exposure to excessive groundborne vibration or noise (Question 10b).

Therefore, there is no potential for cumulative impacts associated with these significance criteria. The remaining noise-related impacts are discussed below for construction, operation, and maintenance of the Proposed Project.

# Construction

#### Generation of Noise and Vibration (Question 10a through 10c)

As outlined in Section 4.10, Noise, construction of the Proposed Project would have less than significant impacts relating to noise and groundborne vibration. Construction of the Proposed Project would generate noise and groundborne vibration, as would the projects outlined in Table 4.16-1. However, most of the projects outlined in Table 4.16-1 are not located in the immediate vicinity of Proposed Project (i.e., are located greater than 0.5 mile from Proposed Project features) and are therefore not likely to combine with Proposed Project-generated noise or vibration to create significant adverse effects. The most noise sensitive portions of the Proposed Project are near the Peñasquitos Substation, along the western segment of Carmel Valley Road (Segment B), along Rancho Peñasquitos Boulevard, and along Scripps Poway Parkway, because these are the locations in which sensitive receptors are located nearby. Only one of the four identified noise sensitive portions where other projects would potentially contribute to cumulatively considerable adverse noise effects occurs along the western end of the Carmel Valley Road segment (Segment B), as outlined below:

- Segment B, along Carmel Valley Road and adjacent to the proposed Torrey Santa Fe Staging Yard where construction of the Proposed Project could overlap with construction noise relating to installed signage along Carmel Valley Road and Torrey Santa Fe Road for the Torrey Highlands Community ID and Enhancement project during a four-month period from June through September of 2016. Coordination with the City of San Diego CIP will ensure construction activities for both projects do not directly coincide and cause adverse cumulative impacts with respect to noise as described in APM CUM-2. Sensitive receptors within 0.25 mile of either project include the Kids Bay Learning Center, Westview High School, Mesa Verde Middle School, and Adobe Bluffs Elementary School.
- Segment B, within the existing residential neighborhoods off Torrey Meadows Drive and Torrey Santa Fe Road, and two nearby schools off Camino Del Sur, where construction of the Proposed Project and operations at the Santa Fe Staging Yard could overlap with construction at the Torrey Highlands Neighborhood Park South. The park is located 0.35 mile south of the Carmel Valley Road, 0.25 mile north of the staging yard and directly adjacent to the Westview High School sports fields. Sensitive receptors within 0.25 mile of either project include Westview High School and Mesa Verde Middle School.

However, even if construction of the Proposed Project were to combine with construction of one of the other projects (thereby providing for the maximum potential for cumulative noise effects), construction activities are sporadic and would only occur during allowable construction hours, when the potential adverse effects of noise are minimized (refer to Section 4.10, Noise). Additionally, per APM CUM-2, coordination with the City of San Diego CIP would limit overlapping construction of both projects at the same location, reducing potential cumulative noise effects. Therefore, while the potential for cumulatively considerable adverse noise effects are possible where the construction of the Proposed Project could overlap with construction of other projects in the immediate vicinity, impacts would be less than significant.

#### Compliance with Noise Codes (Question 10d)

As outlined in Section 4.10, Noise, construction of the Proposed Project would have less than significant impacts relating to local noise standards and ordinances following implementation of project design features and ordinary construction restrictions (refer to Section 3.8). Proposed Project would comply with applicable cities of San Diego and Poway noise codes during construction, because the majority of construction activities would occur during allowable construction periods and because where construction activities may occur outside of allowable construction periods, the construction activities are not anticipated to generate high levels of noise that would exceed local noise ordinance limits. It is possible that construction sound levels may exceed the 75 dBA limit at the few noise sensitive area locations where construction would occur less than 100 feet of a residential property line, although no single receptor would be exposed to significant noise levels for an extended period of time. Additionally, helicopter usage for Proposed Project construction would be limited to those hours deemed acceptable for construction activities by the cities of San Diego and Poway Noise Code. Typical noise levels from construction activities can be found in Table 4.10-6 through 4.10-9. It is assumed that the projects listed within Table 4.16-1 would also be constructed during allowable construction timeframes. Therefore, no cumulatively considerable adverse effects relating to compliance with noise codes are anticipated.

### **Operation and Maintenance**

### Generation of Noise and Compliance with Noise Codes (Question 10c and 10d

Operation and maintenance of the Proposed Project would have less than significant impacts relating to noise and groundborne vibration. While the addition of the new 230 kV transmission line would result in minimal increases in corona noise levels (less than 3 dBA), no substantial temporary or periodic increases in ambient noise levels are expected. Operations and maintenance of both the above ground and below ground segments would be consistent with the existing conditions. None of the projects listed within Table 4.16-1 are anticipated to result in substantial noise increases that would combine with Proposed Project-generated operations noise. Therefore, no significant cumulative adverse impacts are anticipated.

#### 4.16.8.9 **Population and Housing**

The Proposed Project would not have any impacts associated with the following CEQA Appendix G significance criteria relating to population and housing during construction or operations and maintenance:

- Displacement substantial numbers of existing housing (Question 11b), and
- Displacement of substantial numbers of people (Question 11c).

In addition, operation and maintenance of the Proposed Project is not anticipated to have any impacts on population and housing. Therefore, there is no potential for cumulative impacts associated with these significance criteria or operation and maintenance of the Proposed Project. The remaining population and housing-related impacts are discussed below for construction of the Proposed Project.

#### Construction

Construction of the Proposed Project is anticipated to have less than significant impacts relating to induced population growth in the Proposed Project area. Construction of the Proposed Project, while lasting approximately 12 months, would only include up to approximately 100 employees, which would not constitute a substantial increase in employment in the area. Furthermore, the Proposed Project would primarily employ workers who are already living within San Diego County. Additionally, the Proposed Project would not provide access to previously inaccessible areas, extend public services to previously un-served areas, or cause new development elsewhere, outside of the San Diego County area. Therefore, construction of the Proposed Project is not anticipated to combine with other projects to create cumulatively significant impacts relating to population growth.

### 4.16.8.10 Public Services

The Proposed Project would not have any impacts associated with the following CEQA Appendix G significance criteria relating to public services during construction:

• Other public facilities (Question 12a[v]).

In addition, as outlined in Section 4.12, Public Services, there is no potential for impacts during operation and maintenance of the Proposed Project. Therefore, there would be no potential for cumulatively considerable impacts associated with these significance criteria and the above listed criteria are not further discussed herein. The remaining public services-related impacts are discussed below for construction, operation, and maintenance of the Proposed Project.

#### Construction

#### Police and Fire Protection Services (Question 10a[i and ii])

While construction of the Proposed Project would have less than significant impacts relating to the operation of police and fire protections services, these impacts are not associated with any increased demand for these services, or any direct impacts to these services that would require new or expanded facilities. The Proposed Project would improve overall safety with regard to Fire Protections Services by decreasing fire-related impacts through the replacement of existing wood structures with steel structures along Segment A and D. Additionally, the San Diego Fire Department Station Alerting project scheduled to be complete in December 2015 would replace the fire in-station alerting systems at three locations near the Proposed Project ROW, and would decrease fire protection response time and indirectly decrease the fire impact caused by the Proposed Project, thus minimizing the potential cumulative impact in this regard. While some of the projects outlined within Table 4.16-1 (such as residential development projects) could increase demand for these services or require the construction of new or expanded facilities, the Proposed Project would not contribute to any cumulatively considerable effect because the Proposed Project would not result in similar impacts to these services.

#### Schools (Question 10a[iii])

There are seven schools within close proximity to the Proposed Project that could potentially be impacted by some of the projects listed in Table 4.16-1. The Proposed Project would not cause any impacts with respect to school enrollment or the generation of new students, and as such, no adverse cumulative effects would exist in this regard. The seven schools that are located near the Proposed Project ROW could experience increased levels of noise, traffic, and dust due to construction vehicles and activities during the construction period, although these impacts would be minimized through the implementation of SDG&E's standard construction practices and operational procedures as well as BMPs, and other mitigation including traffic control measures.

Additionally, with respect to school traffic, none of the projects listed in Table 4.16-1 occur within the vicinity of Scripps Poway Parkway or Sundevil Way that would combine with construction traffic generated for the Proposed Project to cause an adverse cumulative effect to traffic at Dingeman Elementary and the Innovations Academy, or Carmel Valley High School, respectively. During construction activities for the Proposed Project along Segment B, access along Carmel Valley Road would be impacted for the Kids Learning Bay Center, and also to Westview High School and Mesa Verde Middle School along Camino Del Sur due to traffic entering and leaving the Torrey Santa Fe Staging Yard. Additional traffic may be generated to create an adverse cumulative impact due to the Torrey Highlands Community ID and Enhancement project along Carmel Valley Road and Camino Del Sur, and on Torrey Meadows Drive due to construction traffic for the Torrey Highlands Neighborhood Park South. However, coordination with the City of San Diego CIP per APM CUM-2 would limit additional cumulative traffic effects generated by the Torrey Highlands Community ID and Enhancement project and the Proposed Project. The Torrey Highlands Neighborhood Park South project occurs on a deadend residential street that is not a primary access point for Westview High School or the Proposed Project. Therefore, no cumulative impacts are anticipated for these schools.

#### Parks (Question 10a[iv])

#### Utilization of Parks

The Proposed Project's impacts to existing parks would similarly not be related to increased use or the construction or expansion of park facilities. Additionally, several parks are anticipated to be constructed from 2014 to 2016 within the one mile-buffer zone surrounding the Proposed Project including Coast View Park, Del Mar Mesa Neighborhood Park, and Torrey Highlands Neighborhood Park South. Therefore, no cumulative impacts are anticipated for park facilities.

#### Restricted Access and Physical Impacts to Existing Parks and Recreational Facilities

While the Proposed Project would have less than significant temporary impacts with the incorporation of APM's (PS-1, PS-2, PS-3, PS-4 and PS-5) associated with restricted access to certain parks and recreational facilities during construction, the projects listed in Table 4.16-1 for the most part would not have similar effects within any facilities in common with the Proposed Project. Therefore, there is a low likelihood of cumulative impacts associated with restricted access to existing recreational facilities.

Construction-related impacts to parks within close proximity to the Proposed Project include restricted (minor and temporary) access to the following parks: Black Mountain Open Space

Park, Del Mar Mesa Preserve, Los Peñasquitos Canyon Preserve, Spring Canyon Neighborhood Community Park, Hilltop Community Park, and Black Mountain Ranch Community Park. In addition, parks within the ROW, such as Torrey Hills Dog Park, Rancho Encantada Park and associated open space and trails may be temporarily closed during construction. Alternatively, several parks are scheduled to be constructed from 2014 to 2016 within the mile-buffer zone surrounding the Proposed Project that could help to offset any restricted use due to the Proposed Project including Coast View Park and Rancho Encantada Park, as well as Torrey Highlands Neighborhood Park South and Del Mar Mesa Neighborhood Park, which are scheduled to be completed during the primary stages of the Proposed Project.

While the Proposed Project would have less than significant temporary impacts associated with restricted access to certain parks and recreational facilities, the projects listed in Table 4.16-1 for the most part would not have similar effects. Therefore, there is a low likelihood of cumulative impacts associated with restricted access to existing recreational facilities.

# 4.16.8.11 <u>Recreation</u>

The Proposed Project would not have any impacts associated with the following CEQA Appendix G criterion relating to recreation:

• Construction of new or expanded recreational facilities that could result in adverse impacts to the environment (Question 13b).

In addition, as outlined in Section 4.13, Recreation, there is no potential for significant impacts during operation and maintenance of the Proposed Project. Therefore, there is no potential for cumulative impacts associated with these significance criteria or operation and maintenance of the Proposed Project. The remaining recreation-related impacts are discussed below for construction of the Proposed Project.

# Construction

As discussed under Section 4.13, the Proposed Project would have less than significant temporary impacts associated with restricted access to certain parks and recreational facilities. While an increased demand for non-restricted parks may exist during construction for the Proposed Project, the quantity of existing parks and soon to be completed parks, and the short duration of the Proposed Project's construction within local parks, it is likely that not all of the parks would be restricted simultaneously, and thus, these impacts would be negligible. The projects listed in Table 4.16-1 for the most part would not have similar effects in the same location as the Proposed Project. Therefore, cumulative impacts associated with restricted access to existing parks and recreational facilities, if any, are anticipated to be less than significant.

# 4.16.8.12 <u>Transportation and Traffic</u>

The Proposed Project would not have any impacts associated with the following CEQA Appendix G significance criteria relating to transportation and traffic during operations and maintenance:

- Changes to air traffic control patterns (Question 14c), and
- Impacts to public transit (Question 14f).

Therefore, there is no potential for cumulative impacts associated with these significance criteria for operations and maintenance. The remaining traffic and transportation-related impacts are discussed below for construction, operation and maintenance of the Proposed Project.

### Construction

### Traffic Congestion and LOS (Question 14a and 14b)

Construction of the Proposed Project would result in temporary less than significant impacts relating to the traffic congestion and LOS mostly due to construction activities installing the underground transmission line segment along Carmel Valley Road from Black Mountain Road to Via Albertura (Segment B), and additionally due to above ground transmission line construction along Scripps Poway Parkway, Poway Road, Carmel Mountain Road and adjacent to potential staging yards at two locations along Camino Del Sur.

Construction of the Proposed Project would result in minor, temporary increases in ADT along road segments where construction personnel, equipment, and other construction-related trips would access work areas (refer to Appendix 3-B for all work areas and roadways within the Proposed Project area). Required trips would be dispersed along multiple access routes to limit impacts. No significant deterioration of existing LOS conditions, specifically on the I-15 are expected due to the Proposed Project, and no other concurrent projects are planned as of 2014 along this corridor that could cause an adverse cumulative impact. The Peñasquitos North Trunk Sewer replacement project is also not expected to cause any adverse cumulative impacts with respect to traffic congestion along Carmel Mountain Road as the project is nearly a mile away from the Proposed Project, and is scheduled to begin in August of 2017, well after the end of Proposed Project Block 1Y) is also nearly a mile from the Proposed Project (Peñasquitos Substation) and would only affect local traffic on El Camino Real and access to immediate residents and, as such, would have no adverse cumulative impacts related to traffic.

With respect to the underground transmission line along Carmel Valley Road, construction potentially could require temporary lane closures on Carmel Valley Road, although Traffic Control Plans would ensure AM and PM peak hours would be avoided. The Torrey Highlands Community ID and Enhancement project could generate potential adverse cumulative impacts along Segment B with respect to increased traffic congestion along this roadway if both projects were occurring concurrently along the same stretch of road. Coordination efforts with the City of San Diego CIP (APM CUM-2) would ensure construction activities do not occur concurrently in the same location and that these potential adverse cumulative impacts would remain less than significant. Additionally, no active home construction is scheduled to be on-going adjacent to

Carmel Valley Road, as construction for Marciel at Torrey Highlands is expected to be completed by the start of the Proposed Project.

Temporary impacts would also be present due to construction activities during the school year at the following locations:

- Within Torrey Highlands, of which Carmel Valley Road and Camino Del Sur provides access to the existing Westview High School and Mesa Verde High School.
- Within Torrey Highlands, along Harvest Run Road which provides access to Sage Canyon Elementary School and SDG&E ROW.
- Within Rancho Peñasquitos, along Sundevil Way which provides access to Mount Carmel High School and SDG&E ROW.
- Within Sabre Springs, along Scripps Poway Parkway, Spring Canyon Road, Scripps Creek Road, and Cypress Canyon Road which provides access to SDG&E ROW and the Innovations Academy, Dingeman Elementary, and Ellen Browning Scripps Elementary School.

With respect to intermittent school-related traffic, the only projects listed in Table 4.16-1 that would generate additional construction related traffic to cause adverse cumulative impacts would be the Torrey Highlands Community ID and Enhancement project, and the Torrey Highlands Neighborhood Park South project, both of which are scheduled to overlap with the Proposed Project from June through September 2016. The projects would mostly overlap during the summer months when school is not in session and the enhancement project construction would not occur concurrently at the same location with the Proposed Project as described in APM CUM-2. Additionally, the park would only affect traffic along a secondary access road to the recreational fields at Westview High School. Thus, cumulative impacts associated with traffic during the school year, if any, are anticipated to be less than significant.

Temporary guard structures where the transmission and/or power line would cross major roadways including Stonebridge Parkway, Pomerado Road, Scripps Poway Parkway, Poway Road, I-15, SR-56, Carmel Mountain Road, Carmel Valley Road, and East Ocean Air Drive would not cause any traffic-related impacts and none of the projects listed in Table 4.16-1 with concurrent construction activities with the Proposed Project occur within the vicinity of any of these intersections.

The only roadway project listed in Table 4.16-1 (I-5 North Coast HOV/Express Lanes Project) would not have any cumulative impacts with the Proposed Project as active construction during Phase I would only affect the I-5 corridor within northern San Diego County and south of the I-5 and I-805 merge, and additionally, the segment of I-5 within a mile of the Proposed Project would not be directly affected by construction at the Peñasquitos Substation.

Thus, with the incorporation of APM CUM-2 and timing of the potential overlap of concurrent projects with the Proposed Project, any potential adverse cumulative impacts would remain less than significant.

#### Change in Air Traffic Control Patterns (Question 14c)

The Proposed Project would result in less than significant impacts to air traffic patterns due to utilization of helicopters during construction and encroachment on navigable airspace within the MCAS Miramar AIA. Consultations with MCAS Miramar would ensure minimal impacts and notification to Air Traffic Control and the FAA, where applicable, prior to and during construction would also prevent any adverse impacts due to the slight increase in air traffic. None of the projects listed in Table 4.16-1 would include helicopter usage or would cause an additional impact to air traffic control patterns. Therefore, any cumulatively considerable effects are anticipated to be less than significant.

#### Design Hazards (Question 14d)

The Proposed Project would result in less than significant impacts during construction within public roadways, as discussed above. SDG&E would utilize guard structures for conductor stringing over roadways and encroachment permits would include traffic control plans that would ensure work is completed in a safe manner, in accordance with applicable local regulations. None of the projects outlined above would involve construction within roadways in the immediate vicinity of the Proposed Project. Therefore, any cumulative impacts associated with temporary design hazards would be less than significant.

#### Emergency Access (Question 14e)

Construction of the Proposed Project would result in less than significant impacts to emergency access with incorporation of APMs (refer to Section 4.14, Transportation and Traffic). APM TR-1 would ensure that SDG&E would coordinate in advance with emergency service providers to avoid restricting movements of emergency vehicles, to ensure that emergency vehicle access is maintained, and that impacts to emergency-related traffic flow are minimized. The following projects could also have impacts to emergency access that would require mitigation:

- 1. I-5 North Coast HOV/Express Lanes Project,
- 4. Residential Project Block 1Y (utility undergrounding), and
- 15. Torrey Highlands Community ID and Enhancement.

The combination of these projects could result in cumulative impacts to emergency vehicle response and access if the roadway construction were to take place in the same area (i.e., on the same roads) and at the same time, which is not expected for these three projects with the incorporation of APM CUM-2. Therefore, potentially cumulative impacts to emergency vehicle access would be less that significant.

#### Public Transit and Alternate Transportation (Question 14f)

The Proposed Project would result in less than significant impacts during construction due to short term disruption to two Class I Bike Lanes during construction of Segment B (Carmel Valley Road), and construction of Segment A along Poway Road east of I-15 (Poway Road-Class I Bicycle Path Project). Both of these bike lane segments would experience minimal effects during construction of the Proposed Project and temporary guard structures would be in place during stringing operations. The Residential Project Block 1Y project (utility

undergrounding) occurs adjacent to a different segment of the SR-56 Bicycle Path than the Carmel Valley Road segment (Proposed Project Segment B) that would be temporarily affected by the Proposed Project, and as such, no adverse cumulative impacts would be applicable. Additionally, the Ovation Upgrade at Peñasquitos Pump Station project adjacent to the Poway Road Bike Path and the I-15 is scheduled to have construction activities completed by March of 2016, and would not conflict with the Proposed Project schedule in this area. Thus, potentially cumulative impacts to public transit and alternate transportation would be less that significant.

#### **Operation and Maintenance**

# Traffic Congestion and LOS (Question 14a and 14b)

The Proposed Project would result in less than significant impacts relating to traffic congestion and LOS during operation and maintenance activities. Operation and maintenance of Segment B would result in inspection activities at ten splice vault locations along Carmel Valley Road on 3-year cycles. While these activities may require encroachment permits and traffic control measures, any impact to local traffic conditions is anticipated to be less than significant due to the use of the median, the frequency and duration of these events, the timing of work to avoid peak hours, and the effectiveness of traffic control. None of the projects listed within Table 4.16-1 would have any substantial traffic congestion and LOS related impacts with respect to regular operations and maintenance, and as such, there are no cumulatively considerable adverse effects.

# Design Hazards (Question 14d)

The Proposed Project would result in less than significant impacts relating to design hazards during operation and maintenance activities. Operation and maintenance of Proposed Project Segment B would result in a requirement for periodic access to approximately ten new underground splice vaults which could result in short-term alterations to traffic flow along Carmel Valley Road. None of the projects listed within Table 4.16-1 would have any substantial design hazard related impacts with respect to regular operations and maintenance, and as such, there are no cumulatively considerable adverse effects.

# Emergency Access (Question 14e)

The Proposed Project would result in less than significant impacts relating to emergency access during operation and maintenance activities. As described above, operation and maintenance of the Proposed Project would occur in the same or essentially the locations as they occur today under baseline, existing conditions, with the exception of the identified splice vaults within the median of Carmel Valley Road. While access to these splice vaults could impact emergency access, none of the projects listed within Table 4.16-1 would have any substantial emergency related impacts with respect to regular operations and maintenance in this regard, and as such, there are no cumulatively considerable adverse effects.

### 4.16.8.13 <u>Utilities and Service Systems</u>

The Proposed Project would not have any impacts associated with the following CEQA Appendix G significance criteria relating to utilities and service systems during construction or operations and maintenance:

- Wastewater treatment requirements (Question 15a),
- New water or wastewater facilities (Question 15b),
- New stormwater facilities (Question 15c),
- Water Supply (Question 15d),
- Wastewater treatment services (Question 15e), and
- Compliance with solid waste regulations (Question 15g).

In addition, operation and maintenance of the Proposed Project is not anticipated to have any impacts relating to utilities and service systems. Therefore, there is no potential for cumulative impacts associated with these significance criteria or operations and maintenance. The remaining utilities and service system-related impacts are discussed below for construction of the Proposed Project.

### Construction

### Solid Waste and Landfill Capacity (Question 15f)

Construction of the Proposed Project would result in less than significant impacts to solid waste (landfill) capacity. While some of the projects listed in Table 4.16-1 (I-5 North Coast HOV/Express Lanes project and Utility Undergrounding-Residential Project Block 1Y) would have a similar potential to impact solid waste and landfill capacity, the existing local landfill system has ample capacity for the foreseeable future, waste generated by the I-5 North Coast HOV/Express Lanes project would be spread out over time, and the utility undergrounding project is not expected to result in large amounts of solid waste generation due to the small nature of the project. Therefore, cumulative impacts to solid waste and landfill capacity, if any, would be less than significant.

# 4.16.9 Project Design Features and Ordinary Construction/Operating Restrictions

SDG&E would implement project design features and adhere to ordinary construction and operating restrictions, as outlined in Section 3.8. While the design features and ordinary restrictions ensure the Proposed Project complies with applicable regulations, ordinances, and standards, they would also avoid significant adverse impacts to the project, public, and environment.

#### 4.16.10 Applicant Proposed Measures

While no potentially significant cumulative impacts are expected for the following resources areas and specific significance criteria, APM CUM-2 would ensure that these impacts are minimized:

- Aesthetics: Overall Visual Character;
- Air Quality and Greenhouse Gases: Exposure of Sensitive Receptors;
- Hazards and Hazardous Materials: Hazardous Emissions within 0.25 mile of a School and Emergency Response and Evacuation;
- Noise: Generation of Noise and Vibration;
- Public Services: Schools; and
- Traffic and Transportation: Emergency Services.

These potential cumulative impacts are discussed in Sections 4.16.8.1, 4.16.8.2, 4.16.8.6, 4.16.8.8, 4.16.8.10 and 4.16.8.12. APMs relating to these impacts have also been included within Sections 4.12 (Public Services), and 4.14 (Transportation and Traffic), respectively.

Potentially significant cumulative impacts could result during construction of the Proposed Project if the construction of the Proposed Project occurs simultaneously with the construction of other key projects, specifically the previously mentioned City of San Diego CIP projects. One potentially significant cumulative impact identified relates to traffic congestion and deterioration of LOS. This potential impact is discussed in Section 4.16.8.11. Through the incorporation of APM TR-1 (see Section 4.14.6) and APM CUM-2, this potentially significant cumulative impact, would be effectively minimized and remain less than significant. Additionally, the two APMs included herein with respect to construction scheduling coordination with potential SDG&E system upgrades and City of San Diego CIP projects would ensure cumulative impacts would remain less than significant.

**APM CUM-1**: If any SDG&E system upgrade projects and/or planned operation and maintenance activities develop the potential to overlap with the Proposed Project, coordination of construction will be undertaken to reduce cumulative impacts and minimize overall disruption to adjoining land uses.

**APM CUM-2**: If any City of San Diego CIP projects have the potential to directly conflict with Proposed Project construction activities, SDG&E shall coordinate with the City of San Diego CIP to ensure that construction would not occur concurrently at the same location.

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# **5.0 DETAILED DISCUSSION OF SIGNIFICANT IMPACTS**

In accordance with the PEA Checklist issued by the CPUC on October 7, 2008, this section:

- Identifies the potentially significant impacts that would result from the construction, operation, or maintenance of the Proposed Project;
- Discusses the alternatives that were evaluated in determining the Proposed Project and the justification for the selection of the preferred alternative; and
- Discusses the Proposed Project's potential to induce growth in the area.

#### 5.1 APPLICANT PROPOSED MEASURES TO MINIMIZE SIGNIFICANT EFFECTS

Based on the findings in Section 4.0, Environmental Impact Assessment, the Proposed Project would result in no significant, unavoidable impacts during construction.

Other potential significant impacts were identified that could be reduced to a level less than significant with the incorporation of APMs for the following resource areas:

- Cultural Resources,
- Public Services,
- Transportation and Traffic, and
- Cumulative Impacts.

Additionally, while no significant impacts to biological resources are anticipated, one APM along with ordinary construction/operating restrictions including implementation of the *SDG&E Subregional NCCP* would ensure that potential impacts would remain less than significant.

SDG&E has identified 17 APMs that it plans to implement during construction and/or operation of the Proposed Project to reduce or avoid impacts. Chapter 3.0, Proposed Project Description, provides a list of all of the APMs that have been proposed as part of the Proposed Project, as well as the justification for each (refer to Tables 3-15 and 3-16). Additionally, all of the proposed APMs are detailed in Section 4, Environmental Impact Assessment.

#### 5.2 DESCRIPTION OF PROJECT ALTERNATIVES TO MINIMIZE SIGNIFICANT EFFECTS

#### 5.2.1 Introduction

The CPUC PEA Checklist asks public utilities to provide a summary of alternatives that would meet most of the objectives of the Proposed Project and an explanation as to why they were not

chosen as the Proposed Project. The CPUC PEA Checklist further requires that the discussion of alternatives include alternatives capable of substantially reducing or eliminating any significant environmental effects, even if the alternative(s) substantially impede the attainment of the project objectives, and are more costly.

#### 5.2.2 Methodology

The Proposed Project involves the construction of new transmission line facilities and the replacement or relocation of existing power line and transmission line facilities as-needed in order to accommodate the new 230 kV transmission line. All proposed overhead facilities would be located within existing SDG&E ROW and utility corridors and proposed underground facilities would be located within existing franchise position (city street). The Proposed Project has been designed to avoid and minimize potential adverse environmental effects (refer to Sections 3.0 and 4.1 through 4.15). This section of the PEA considers whether any of the alternatives meet the Proposed Project Objectives and whether any of the alternatives could reduce potential adverse impacts.

In accordance with the CPUC PEA Checklist, this section considers the following potential alternatives:

- No Project Alternative;
- Northern Alignment Alternatives (Alternative Alignments 1 through 4);
- Southern Alignment Alternatives (Alternative Alignments 5 and 6); and
- Underground Project Alternative (Alternative Alignment 7).

In addition, this section describes the following cable structure alternate options for the east and west overhead termini of Proposed Project Segment B (underground transmission line through Carmel Valley Road):

- Eastern cable pole options.
  - Proposed Project Option: Double-circuit monopole structure north of Carmel Valley Road, within Black Mountain Ranch Community Park (Proposed Structure No. P41).
  - Alternate Option: 3-pole structure south of Carmel Valley Road (Structure No. P41[A]).
- Western cable pole options.
  - Proposed Project Option: Double-circuit monopole structure south of Carmel Valley Road (Structure No. P42).
  - Alternate Option: Double-circuit monopole structure north of Carmel Valley Road within the Evergreen Nursery (Structure No. P42[A]).

# 5.2.3 Proposed Project Objectives

As outlined in Section 2.0, Proposed Project Purpose and Need, the objectives for the Proposed Project are:

- 1. Meet the Functional Specifications identified by CAISO in its 2012-2013 Transmission Plan for a new 230 kV transmission line from the existing Sycamore Canyon Substation to the existing Peñasquitos Substation. This accomplishes the following sub-objectives for the SDG&E bulk power system:
  - a. Ensure that the SDG&E bulk electric system continues to meet NERC, WECC, and CAISO reliability criteria;
  - b. Promote compliance with State of California policy goals with regards to renewable energy integration and OTC retirement;
  - c. Reliably and economically meet forecasted load growth for the San Diego metropolitan area; and
  - d. Deliver imported energy more efficiently to the San Diego load center.
- 2. Locate the Proposed Project's facilities within existing transmission and power line corridors, SDG&E ROW, utility owned property, and City of San Diego franchise ROW.

### 5.2.4 Alternatives Considered but Rejected

SDG&E evaluated several alternatives based upon feasibility and ability to fulfill the Proposed Project objectives, especially the fundamental objective of meeting CAISO's Functional Specifications (Objective No. 1). The alternatives discussed below all meet Objective No. 1, with the exception of the No Project Alternative. However, some alternatives were judged not to be feasible, did not meet Objective No. 2, or were deemed to have potentially greater adverse effects (including potentially significant impacts under CEQA) in relation to the Proposed Project. Each alternative that was considered but rejected is discussed in detail in the following sections.

#### 5.2.4.1 <u>No Project Alternative</u>

CEQA requires consideration of a "No Project Alternative". The purpose of the No Project Alternative is to enable decision-makers to compare the impacts of approving the Proposed Project against the impacts of not approving the Proposed Project. The No Project Alternative assumes that a new 230 kV transmission line would not be constructed to connect the existing Sycamore Canyon and Peñasquitos Substations.

#### Attainment of Project Objectives by the No Project Alternative

SDG&E would not be able to meet the Proposed Project's fundamental objective (Objective No. 1) if the No Project Alternative was selected.

#### Avoidance or Reduction of Potentially Significant Impacts

The Proposed Project would result in less than significant impacts (following implementation of APMs) to numerous resources areas, as outlined in Sections 4.1 through 4.15. The No Project Alternative would avoid all of the potentially significant impacts associated with the Proposed Project. However, it is important to note that the No Project alternative would result in some increased adverse effects relating to operation and maintenance. For instance, operation of the No Project Alternative (i.e. continuation of existing conditions) would result in increased fire hazards when compared to the Proposed Project because the Proposed Project would result in new, steel structures which represent an increase in fire safety and a decrease in fire hazards. Operation of the No Project Alternative would also result in increased frequency in maintenance activities, especially along Segments A and D because the existing, predominantly wood structures would require a greater level of operation maintenance activities when compared to the new, steel structures that would be constructed as part of the Proposed Project.

Additionally, while the No Project Alternative would eliminate all adverse effects that would result from construction and operation of the Proposed Project, it would not address the need for a new 230 kV connection between the Sycamore Canyon and Peñasquitos Substations. Therefore, it is reasonable to assume that in the absence of the Proposed Project, another project would be designed and implemented to meet the CAISO Functional Specification (Objective No. 1). This alternative solution can reasonably be assumed to result in some level of adverse effect to the human and/or natural environment. Thus, while a comparison of the Proposed Project, it is more likely that the fundamental need for a new 230 kV connection between the Sycamore Canyon and Peñasquitos Substations would be fulfilled in some manner and some level of adverse effect would result.

#### Conclusion

The No Project Alternative would not meet the fundamental objective of the Proposed Project (Objective No. 1) because it would not include construction and operation of a new 230 kV transmission line between the existing Sycamore Canyon and Peñasquitos Substations. Therefore, SDG&E rejected the No Project Alternative.

#### 5.2.4.2 <u>Northern Alignment Alternatives</u>

The Northern Alignment Alternatives (Alternative Nos. 1 through 4) would include construction and operation of a new 230 kV transmission line between the existing Sycamore Canyon and Peñasquitos Substations, and would utilize much of the alignment included as part of the Proposed Project (see Figure 5-1, Alternatives Map). Specifically, the Northern Alignment Alternatives would share the following elements with the Proposed Project:

• 8.3 miles of new 230 kV structures (approximately 41 structures) within existing ROW between the Sycamore Canyon Substation and Carmel Valley Road (Proposed Project Segment A);



Section 5.0 – Detailed Discussion of Significant Impacts

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BACK OF FIGURE 5-1

- 2.1 miles of re-conductoring existing 230 kV transmission lines and installation of new conductor all on existing structures between Carmel Valley Road and the Peñasquitos Substation (Proposed Project Segment C);
- 3.3 miles of 230 kV conductoring (new conductor on existing structures) between the Peñasquitos Junction and the Peñasquitos Substation (Proposed Project Segment D); and
- 3.3 miles of 69 kV pole replacement (replace approximately 20 existing wood structures with approximately 17 new tubular steel poles between Peñasquitos Junction and existing Peñasquitos Substation) within existing ROW (Proposed Project Segment D).

The Northern Alignment Alternatives would extend further north than the Proposed Project alignment, and would essentially replace the Proposed Project Segment B (undergrounding in Carmel Valley Road) with alternative alignments (overhead or underground) located north of Carmel Valley Road (refer to Figure 5-1). The Northern Alignment Alternatives are further described in Table 5-1, Northern Alignment Alternatives.

Alignment No.	Total Route Length <sup>1</sup>	General Description
1	27.66 miles	Alternative No. 1 would include utilization of existing SDG&E ROW from the Sycamore Canyon Substation north for approximately 15.3 miles. Alternative No. 1 would then travel approximately 0.3 mile west within new ROW until connecting with existing SDG&E ROW. This segment of Alternative No. 1 would include new construction of single-circuit 230 kV in either an overhead or underground position. The Alternative No. 1 alignment would then continue south until reaching the Peñasquitos Junction (approximately 8.9 miles) and would utilize existing structures. Alternative No. 1 would utilize Segment D as included within the Proposed Project.
2	25.09 miles	Alternative Alignment No. 2 would include utilization of existing SDG&E ROW from the existing Sycamore Canyon Substation north for approximately 14 miles. Alternative No. 2 would then travel approximately 0.39 mile west within new ROW until connecting with existing SDG&E ROW. This segment of Alternative B would include new construction of single-circuit 230 kV transmission line in an underground or overhead position. The Alternative No. 2 alignment would then continue south within existing SDG&E ROW until reaching the Peñasquitos Junction (approximately 7.5 miles) and would utilize existing structures. Alternative No. 2 would utilize Segment D as included within the Proposed Project.

# Table 5-1: Northern Alignment Alternatives
Alignment No.	Total Route Length <sup>1</sup>	General Description
3	23.62 miles	Alternative Alignment No. 3 would include utilization of existing ROW from the existing Sycamore Canyon Substation north for approximately 13 miles. Alternative No. 3 would then travel approximately 0.86 mile west within franchise position in existing Del Dios Hwy until connecting with existing SDG&E ROW. This segment of Alternative 3 would include new construction of single-circuit 230 kV transmission line in an underground position. The Alternative No. 3 alignment would then continue south within existing SDG&E ROW until reaching the Peñasquitos Junction (approximately 6.5 miles) and would utilize existing structures. Alternative No. 3 would utilize Segment D as included within the Proposed Project.
4	21.60 miles	Alternative Alignment No. 4 would include utilization of existing ROW from the existing Sycamore Canyon Substation north for approximately 10.7 miles. Alternative No. 4 would then travel approximately 2.26 miles west within mostly franchise position in existing roadways (Artesian and Camino del Sur) until connecting with existing SDG&E ROW. This segment of Alternative No. 4 would include new construction of single-circuit 230 kV in an underground position. The Alternative No. 4 alignment would then continue south within existing SDG&E ROW until reaching the Peñasquitos Junction (approximately 5.4 miles). Alternative No. 4 would utilize Segment D as included within the Proposed Project.
Notes:		

 Table 5-1 (cont.): Northern Alignment Alternatives

<sup>1</sup>Total route lengths include segments shared with the Proposed Project (Segments A, C, and D).

Source: SDG&E

### Attainment of Project Objectives by the Northern Alignment Alternatives

### Objective No. 1

All four of the Northern Alignment Alternatives would meet Objective No. 1. SDG&E could design, construct, and operate all four of the Northern Alignment Alternatives to meet the Functional Specifications identified by CAISO in its 2012-2013 Transmission Plan and as such, the Northern Alignment Alternatives would meet Objective No. 1 in a similar manner as the Proposed Project.

#### Objective No. 2

Alternative Nos. 1 and 2 would require new ROW, and would therefore not meet Objective No. 2 to the extent that the Proposed Project would. Alternative Nos. 3 and 4 would utilize all existing ROW, utility corridors, or existing franchise position and as such would meet Objective No. 2 to a similar extent as the Proposed Project.

#### **Avoidance or Reduction of Impacts**

All four of the Northern Alignment Alternatives would include Proposed Project Segments A, C, and D. Therefore, the impacts associated with these segments would be similar for the Northern Alignment Alternatives and the Proposed Project. Alternative Nos. 3 and 4 would include construction and operation of new underground 230 kV transmission line within franchise position (city/county streets). Thus, the potential impacts relating to transportation and traffic, (refer to Section 4.14) would be similar for Alternative Nos. 3 and 4. Alternative Nos. 1 and 2 would not include construction of underground transmission line within public roadways, and would therefore avoid the impacts associated with construction and operation of underground utilities within public roadways that would result from the Proposed Project.

While the Northern Alignment Alternatives would result in similar effects as the Proposed Project along Segments A, C, and D, all four of the Northern Alignment Alternatives are longer than the Proposed Project which would result in increased impacts, or potential for impacts, as discussed further below.

#### Aesthetics

Alternative Nos. 1 and 2 would be anticipated to have slightly greater impacts to aesthetic resources as the line would include the addition of new ROW, 0.30 and 0.39 mile respectively, that would affect the permanent visual environment in that area. Construction activities would be visible along all segments; however, these effects would be temporary and would be more similar to the construction-related aesthetic impacts anticipated from the Proposed Project and other alternatives. Alternative Nos. 3 and 4 would include construction and operation of new underground 230 kV transmission line within franchise position (city/county streets). Thus, the potential impacts relating to aesthetics (refer to Section 4.1) would be similar for Alternative Nos. 3 and 4. Finally, due to the increased length of Alternatives 1 through 4, aesthetics impacts would be anticipated to be greater than those of the Proposed Project due to the increase in affected viewers.

#### Biological Resources

All four Northern Alignment Alternatives would require additional temporary and permanent impact areas, including temporary structure work areas, permanent structure maintenance pads, and temporary stringing sites. These increased impact areas required for the Northern Alignment Alternatives would result in greater impacts to biological resources, in the following ways:

- 1. Impacts to sensitive vegetation communities would increase proportionately with the length of proposed route. The longer the alignment, the greater the number of structures and stringing sites, which could result in greater impacts to sensitive vegetation communities.
- 2. The potential for impacts to sensitive plant and wildlife species increases with the increased length of each alternative alignment. The greater the footprint of a given alternative alignment, the greater potential for adverse effects to sensitive plant and wildlife species.

#### Cultural Resources

As stated above, all four Northern Alignment Alternatives would result in larger impact areas when compared to the Proposed Project. Therefore, the potential for impacts to cultural, historical, and paleontological resources would increase in general proportion to the increase in impact area.

#### Construction Impacts (Air Quality, Noise, Public Services, and Recreation)

As the Northern Alignment Alternatives are longer than the Proposed Project alignment, construction-related impacts to the human environment would increase. Specifically, the following impacts would be anticipated to increase during construction of any of the Northern Alignment Alternatives:

- Construction noise impacts would increase (in extent) proportional to the increase in alignment length as exposure of NSAs would increase with the length of the alignment. While noise impacts would increase for the longer northern alignment alternatives, it is not anticipated to change the severity (relative significance) of these effects.
- Construction air emissions would increase proportional to any increase in the usage of construction equipment. The longer northern alignment alternatives would require a higher total of construction equipment (greater total construction equipment hours required to construct additional facilities [structure installation/removal and conductor stringing]) which would result in greater overall emissions of criteria pollutants. In addition, these increased air quality impacts could result in more severe (i.e., more significant) effects as any increase in the amount of equipment operating simultaneously would increase the maximum daily emissions of criteria pollutants, thereby increasing the severity of the effects under CEQA.
- The potential for temporary impacts to parks, trails, and other recreational facilities would increase (in extent) proportional to the increase in alignment length as the number of recreational and public facilities can only increase as the length of the alignment increases. The increased impacts to public and recreational facilities would very likely increase in extent (i.e., number of impacted facilities) but would not likely result in increased severity of impacts.

#### **Other Considerations**

#### Cost

In general, the cost to construct and operate electrical transmission facilities increases proportionally with increased length of the facility (site-specific cost considerations not withstanding<sup>1</sup>). Also important to note is that construction of underground facilities is

<sup>&</sup>lt;sup>1</sup> Due to site-specific cost considerations (such as soil conditions, presence of sensitive resources, topography, and site accessibility) a longer alignment could result in a lower cost where site specific cost concerns are not relatively equal. For example, a two-mile long underground transmission line located within favorable soil conditions (e.g.' loose or compacted topsoil) could have lower costs than a one-mile underground transmission located within more less favorable soil conditions (e.g., bedrock).

significantly more expensive than construction of overhead facilities. With respect to comparison of the Proposed Project and the Northern Alignment Alternatives, construction costs are anticipated to be approximately 12 to 21 percent more expensive than the Proposed Project.

#### Construction Schedule

In a similar manner to cost considerations, the construction schedule generally increases proportionally with the increased length of the alignment. This increase is directly defined as the increase in equipment hours required to construct a longer alignment. This increase can be manifested in one of two ways during actual construction:

- 1. Longer construction duration (increase in the actual linear length of the construction schedule); or
- 2. Additional construction activities occurring simultaneously (increase in the amount of construction occurring at one time).

In reality, a longer project alignment could result in both of the increases described above. That is to say, construction of one of the Northern Alignment Alternatives could reasonably be anticipated to result in both a longer overall construction schedule and utilization of additional construction equipment and workers when compared to the Proposed Project (construction is effectively longer and more intensive). All four Northern Alignment Alternatives would be anticipated to have a longer construction schedule, a more intensive construction schedule, or some combination of both.

### Conclusion

Ultimately, all four of the Northern Alignment Alternatives were rejected because they would likely result in higher costs, longer and/or more intensive construction schedules, greater impacts, potentially more significant impacts, and no perceptible benefit that is not also provided by other alternative routes with lower cost, shorter schedules, and lower overall impacts to the public and natural environment.

### 5.2.4.3 <u>Southern Alignment Alternatives</u>

The Southern Alignment Alternatives (Alternative Nos. 5 and 6) would include construction and operation of a new 230 kV transmission line between the existing Sycamore Canyon and Peñasquitos Substations, and would utilize approximately half of the alignment included as part of the Proposed Project (refer to Figure 5-1). Specifically, the Southern Alignment Alternatives would share the following elements with the Proposed Project:

- 5.7 miles of new 230 kV conductor and structures (approximately 28 structures) within existing ROW between the Sycamore Canyon Substation and the Chicarita Substation (Proposed Project Segment A);
- 3.27 miles of 230 kV conductoring (new conductor on existing structures) between the Peñasquitos Junction and the Peñasquitos Substation (Proposed Project Segment D); and

• 3.27 miles of 69 kV pole replacement (replace approximately 20 existing wood structures with approximately 17 new tubular steel poles between Peñasquitos Junction and existing Peñasquitos Substation) within existing ROW (Proposed Project Segment D).

The Southern Alignment Alternatives would not extend further north than the existing Chicarita Substation, located south of SR-56 (thus effectively sharing approximately two thirds of the Proposed Project Segment A). The Southern Alignment Alternatives are further described in Table 5-2, Southern Alignment Alternatives.

Alignment No.	Total Route Length <sup>1</sup>	General Description			
5	12.80 miles	Alternative No. 5 would include utilization of approximately 3.83 miles of existing, unoccupied SDG&E ROW between the Chicarita Substation and the Peñasquitos Junction. Under Alternative No. 5, new overhead 230 kV structures would be installed along with new single-circuit 230 kV conductor. Additionally, new access roads, spur roads and work pads would be required and a portion of the existing ROW is within the Del Mar Mesa Preserve. Alternative No. 5 would not require any new or amended ROW. Alternative No. 5 would utilize Segment D as described for the Proposed Project.			
6	13.43 miles	Alternative No. 6 would utilize a combination of existing ROW, franchise positions (within existing streets), and new ROW to install approximately 4.46 miles of new single-circuit underground 230 kV transmission line from the Chicarita Substation to the Peñasquitos Junction. From approximately 500 feet southwest of the existing Chicarita Substation, Alternative No. 6 would travel west within existing, unoccupied SDG&E ROW for approximately 1.78 miles. Alternative No. 6 would then be installed within Park Village Road (franchise position) for approximately 0.92 mile. Finally, Alternative No. 6 would utilize new ROW for approximately 1.76 miles through the Los Peñasquitos Canyon Preserve until reaching the Peñasquitos Junction. Alternative No. 6 would utilize Segment D as described for the Proposed Project.			
Notes: <sup>1</sup> Total route leng	oths include see	ments shared with the Proposed Project.			
Source: SDG&E					

 Table 5-2: Southern Alignment Alternatives

### Attainment of Project Objectives by the Southern Alignment Alternatives

#### Objective No. 1

Both of the Southern Alignment Alternatives would meet Objective No. 1. SDG&E could design, construct, and operate Alternative Nos. 5 and 6 to meet the Functional Specifications identified by CAISO in its 2012-2013 Transmission Plan and as such, the Southern Alignment Alternatives would meet Objective No. 1 in a similar manner as the Proposed Project.

### Objective No. 2

Alternative No. 6 would require significant new ROW (approximately 1.8 miles) and would not be constructed entirely within existing utility corridors or franchise position. Alternative No. 5 would utilize all existing ROW, but would not utilize existing utility corridors. Therefore, neither of the Southern Alignment Alternatives is considered to meet the full intent of Objective No. 2.

#### **Avoidance or Reduction of Impacts**

Both Southern Alignment Alternatives would include Proposed Project Segment D and a large portion of Segment A as described for the Proposed Project. Therefore, the impacts associated with these segments would be similar for the Southern Alignment Alternatives and the Proposed Project. While the Southern Alignment Alternatives would result in similar effects as the Proposed Project along Segment D and a large portion of Segment A, both Southern Alignment Alternatives have elements that result in perceptible variation in potential adverse effects due to each alternative route's connection between the Chicarita Substation and the Peñasquitos Junction. The specific variations in anticipated adverse effects (impacts) for the Southern Alignment Alternatives are further discussed below.

### Southern Alignment Alternative No. 5

Alternative No. 5 is the shortest alternative considered, and as such could be anticipated to have a reduction relating to certain construction-related impacts (such as air emissions and construction generated noise). However, due to the location and nature of the existing environment along the Alternative No. 5 alignment, potentially adverse effects to the natural and human environment are anticipated which would not result as part of the Proposed Project or the Northern Alignment Alternatives. Potential impacts for the Alternative No. 5 are described below, including comparisons to the anticipated impacts for the Proposed Project, for applicable resource areas. Reductions and increases to adverse effects in relation to the Proposed Project are indicated.

#### Construction Impacts (Noise, Air Quality, Public Service, and Recreation)

Construction-related impacts to the human environment (e.g., noise and air quality) associated with Alternative No. 5 would likely be less than those anticipated for the Proposed Project due to the shorter alignment Alternative No. 5 would include. In addition, temporary impacts to recreational facilities could be slightly less than those anticipated for the Proposed Project due to the shorter alignment and smaller number of facilities affected.

#### **Biological Resources**

The Alternative No. 5 alignment contains known sensitive biological resources, including vernal pools and a portion occurs within the Del Mar Mesa Preserve. Construction of Alternative No. 5 would require creation of new access roads, spur roads, and structure work areas (construction and maintenance work pads). Construction of these facilities would result in unavoidable direct impacts to known vernal pool resources. The *SDG&E Subregional NCCP* does not cover direct impacts to vernal pools for construction of new facilities. Therefore, unavoidable direct impacts

to the vernal pool features along the Alternative No. 5 alignment would require consultation with the wildlife agencies (CDFW and USFWS), and proper mitigation for such impacts would need to be secured. Suitable mitigation for direct impacts to these vernal pool features is currently unknown, and these impacts are anticipated to be significant if proper mitigation were not available. This impact would be anticipated to be significant and unavoidable.

### Aesthetics

Alternative No. 5 would include the installation of approximately 19 new single-circuit, 230 kV steel poles within existing, unoccupied SDG&E ROW. This segment is approximately 3.83 miles in length, and is located in close proximity to existing viewsheds and potential viewers. While the Proposed Project includes construction of new 230 kV steel structures along Segment A, these structures would replace existing 138 kV wood H-frame structures and would be located adjacent to existing 230 kV steel lattice towers and monopole structures. Alternative No. 5 would include similar structures as those included within Segment A of the Proposed Project; however, while Alternative No. 5 is within an existing utility ROW corridor, there are no existing structures within this ROW, and as such the installation of new 230 kV structures (typical average height of 120 feet) where no similar structures currently exist would represent a greater change in the existing visual environment, and thus would result in comparatively greater adverse impact to aesthetic resources.

# <u>Traffic</u>

Alternative No. 5 would not include construction of underground transmission line(s) within public roadways, and would therefore avoid the impacts associated with construction and operation of underground utilities within public roadways that would result from the Proposed Project.

# Southern Alignment Alternative No. 6

Alternative No. 6 is the second shortest alternative considered, and as such could be anticipated to have a reduction relating to certain construction-related impacts (such as air emissions and construction generated noise). However, due to the location and nature of the existing environment along the Alternative No. 6 alignment, potentially adverse effects to the natural and human environment are anticipated which would not result as part of the Proposed Project or the Northern Alignment Alternatives. Potential impacts for Alternative No. 6 are described below, including comparisons to the anticipated impacts for the Proposed Project, for applicable resource areas. Reductions and increases to adverse effects in relation to the Proposed Project are indicated.

### Construction Impacts (Noise, Air Quality, Public Service, and Recreation)

Construction-related impacts to the human environment (e.g., noise and air quality) associated with Alternative No. 6 would likely be less than those anticipated for the Proposed Project due to the shorter alignment Alternative No. 6 would include. This reduction in overall noise and air quality impacts would not necessarily reduce the severity of anticipated impacts in these areas. In addition, temporary impacts to recreational facilities could be slightly less than those anticipated for the Proposed Project due to the shorter alignment and smaller number of facilities

affected. However, Alternative No. 6 would result in temporary impacts to the Los Peñasquitos Canyon Preserve to a much greater extent than would the Proposed Project.

#### **Biological Resources**

The Alternative No. 6 alignment contains known sensitive biological resources, including vernal pool features. Construction of Alternative No. 6 would require creation of new access roads, spur roads, and structure work areas (construction and maintenance work pads). Construction of these facilities would result in direct impacts to known vernal pool resources. The *SDG&E Subregional NCCP* does not cover direct impacts to vernal pools for construction of new facilities. Therefore, direct impacts to the vernal pool features along the Alternative No. 6 alignment would require consultation with the wildlife agencies (CDFW and USFWS), and proper mitigation for such impacts would need to be secured. Suitable mitigation for direct impacts to these vernal pool features is currently unknown, and these impacts are anticipated to be significant if proper mitigation were not available. This impact would be greater than the impacts anticipated to result from the Proposed Project.

#### Aesthetics

Alternative No. 6 would include installation of underground transmission line between the Chicarita Substation and the Peñasquitos Junction. Therefore, Alternative No. 6 would result in less overall visual change when compared to the Proposed Project or Alternative No. 5.

### <u>Traffic</u>

Alternative No. 6 would include construction and operation of new underground 230 kV transmission line(s) within franchise position (city streets). Thus, the potential impacts relating to transportation and traffic (refer to Section 4.14) would be similar (although not within the same location) for Alternative No. 6 and the Proposed Project.

### Additional Permitting and Mitigation Requirements

The Southern Alignment Alternatives are anticipated to trigger additional, potentially significant permitting, mitigation, and discretionary approvals. Specific anticipated requirements are discussed below for each of the Southern Alignment Alternatives.

### Alternative No. 5

A 3.83-mile segment of the Alternative No. 5 alignment is currently unoccupied by any electrical infrastructure (e.g., transmission or distribution poles and associated conductor) or support features (e.g., access roads). Construction of new 230 kV structures within this 3.83-mile segment of Alternative No. 5 would result in impacts to vernal pools and other sensitive biological resources as well as impacts within designated critical habitat and habitat preserve areas. Impacts to biological resources along this alignment would result in the need for direct consultation with the CDFW and USFWS as the *SDG&E Subregional NCCP* could not be utilized for these impacts. The consultation process, especially as it compares to the *SDG&E Subregional NCCP* process, represents an almost certain significant increase in the overall schedule. Finally, mitigation for direct impacts (loss) of vernal pool features is considered a

significant permitting, cost, and schedule uncertainty and a potential significant impact in the absence of mitigation.

#### Alternative No. 6

Similar to Alternative No. 5, Alternative No. 6 would involve construction of new facilities where no facilities currently exist, including in areas of sensitive biological resources within Los Peñasquitos Canyon Preserve. These impacts to biological resources would likely require direct consultation with the CDFW and USFWS, resulting in a significantly longer permitting schedule and uncertain yet potentially significant mitigation requirements. Mitigation for direct impacts to vernal pools would also be likely, which represents a large permitting/consultation and mitigation unknown as vernal pool mitigation can be extremely challenging.

Unlike Alternative No. 5, Alternative No. 6 would require new ROW for approximately 1.76 miles. More importantly, most of the 1.76 miles would be located within the Los Peñasquitos Canyon Preserve, which is dedicated open space by the City of San Diego. In order to obtain new ROW within dedicated open space, discretionary approval from the City would be required. Given this area is dedicated Open Space, approval of new ROW by the City is considered to be unlikely. This ROW approval constitutes an unknown schedule element and additional discretionary approval requirement. This discretionary review would be anticipated to result in potentially significant schedule delays. Further schedule uncertainty would result from new construction and ROW within the Coastal Zone, which covers a portion of the underground portion of Alternative No. 6.

#### **Other Considerations**

### Cost

The direct cost of construction for both Southern Alignment Alternatives would be less than construction of the Proposed Project. The construction cost of Alternative No. 5 would be approximately half the construction cost of the Proposed Project. The cost of Alternative No. 6 would be approximately 20 percent less than the construction cost of the Proposed Project. However, potential land acquisition, mitigation and permitting costs are anticipated to be much higher for the Southern Alignment Alternatives due to the presence of sensitive biological resources and land use designations (refer to description of anticipated impacts to biological resources above). For Alternative No. 5, costs for mitigation to vernal pool resources is of primary concern and costs associated with obtaining new ROW through the Los Peñasquitos Preserve is of principal concern for Alternative No. 6.

### Construction Schedule

The Southern Alignment Alternatives are the shortest alternatives considered, and as such could be expected to have shorter, less intense construction schedules. However, the Southern Alignment alternatives do contain elements that could result in longer or more intensive construction. For example, the Southern Alignment Alternatives would require construction of new access and spur roads as these support features do not currently exist. In addition, Alternative No. 6 includes extensive underground construction, which is more intensive (per unit of distance) than overhead construction.

### Conclusion

Ultimately, both of the Southern Alignment Alternatives were rejected because they would likely result in longer, uncertain permitting and mitigation requirements, potentially significant impacts to biological and visual resources, and non-achievement of Objective No. 2 (utilization of existing ROW and utility corridors).

### 5.2.4.4 <u>Underground Project Alternative</u>

The underground alternative (Alternative No. 7) would connect the Sycamore Canyon and Peñasquitos Substations with a new, single-circuit underground 230 kV transmission line utilizing public roadways to the greatest extent possible (refer to Figure 5-1). The underground alternative would include approximately 12.74 miles of new underground 230 kV transmission line within public roadways (i.e., franchise position) and approximately 2.53 miles of new underground 230 kV transmission line located within the boundaries of MCAS Miramar. The total length of Alternative No. 7 would be approximately 15.27 miles. Alternative No. 7 would not utilize any of the common segments applicable to the Proposed Project and the Northern and Southern Alignment Alternatives. The underground alternative alignment would be generally west from the Sycamore Canyon Substation, and then generally north to the Peñasquitos Substation.

### Attainment of Project Objectives by the Underground Project Alternative

#### Objective No. 1

While detailed engineering has not been conducted, SDG&E anticipates that it could design, construct, and operate the Underground Alternative to meet the Functional Specifications identified by CAISO in its 2012-2013 Transmission Plan and as such, the Alternative No. 7 would meet Objective No. 1 in a similar manner as the Proposed Project.

#### Objective No. 2

While Alternative No. 7 would utilize a high percentage of existing franchise ROW, it would also require significant new ROW located on MCAS Miramar. Therefore, Alternative No. 7 would not meet Objective No. 2.

#### Avoidance or Reduction of Potentially Significant Impacts

Alternative No. 7 would not utilize any common segments utilized by the Proposed Project or Southern and Northern Alignment Alternatives. Therefore, impacts anticipated to result from construction and operation of Alternative No. 7 would be different (at least in location) than those anticipated from the Proposed Project and remainder of the alternatives considered. Potential impacts anticipated (potential reductions and increases) from the Alternative No. 7 alignment are described below for applicable resource areas.

### Construction Impacts (Noise, Air Quality, Public Services, and Recreation)

Construction of Alternative No. 7 would be relatively more intensive due to the fact that the entire alignment would be underground. Underground construction takes longer and requires more equipment per mile than overhead construction. Therefore, relatively higher (and potentially more severe) impacts would be anticipated for noise and air quality.

However, impacts to recreational public and private facilities would be anticipated to be less than the Proposed Project due to the fact that Alternative No. 7 would largely utilize franchise position (city streets). The portion of Alternative No. 7 that would not utilize franchise position would be located on MCAS Miramar and would therefore not be likely to impact public or private recreational facilities.

#### Aesthetics

Alternative No. 7 would be anticipated to have substantially less impacts to aesthetic resources as the line would be located in an underground position and would not affect the permanent visual environment. Construction activities would be visible; however, these effects would be temporary and would be more similar to the construction-related aesthetic impacts anticipated from the Proposed Project and other alternatives.

### **Biological Resources**

Focused biological surveys have not been completed for the Alternative No. 7, and therefore exact potential for impacts to biological resources are not known. However, while construction of Alternative No. 7 would mostly occur within franchise position (city streets), the portion of the Alternative No. 7 located on MCAS Miramar could result in impacts to biological resources, overall impacts would be anticipated to be lower for Alternative No. 7 when compared to the Proposed Project due to the large amount of construction within city streets.

### Cultural and Paleontological Resources

While cultural and paleontological resources for the Alternative No. 7 route have not been investigated, the intensive amount of ground disturbance (trenching) could result in potential impacts to buried cultural and paleontological resources. This potential could be greatly reduced due to the Alternative No. 7's utilization of existing streets, however, this fact alone does not preclude the potential to encounter of buried resources.

# Traffic

Alternative No. 7 would include approximately 12.74 miles of underground construction within city streets (franchise position). As discussed within Section 4.14, construction of an underground line within city streets created potential impacts associated with traffic congestion (LOS) and emergency vehicle access. Due to the extent of underground construction within city streets that would be included within Alternative No. 7, these impacts would be greater than those anticipated for the Proposed Project. In addition, the impacts to traffic congestion and emergency vehicle access could also be more severe (i.e., significant) due to localized conditions where construction would occur. These localized conditions can include existing traffic

congestion (LOS), and intensive traffic generating land uses (high schools, large professional office buildings, or existing road design features [bottle necks, sharp turns, etc.]). The Alternative No. 7 alignment has not been analyzed for these conditions, but given the length of the alignment within city streets and the location (in the vicinity of the coastal zone and the I-5 Freeway), a potential for significant impacts is considered to be present.

#### **Other Considerations**

#### Cost

Alternative No. 7 would have the highest construction cost of any alternative considered (over 90 percent higher than the Proposed Project), despite having a shorter total route length than most of the alternatives considered. This is due to the fact that construction of underground lines is far more expensive per miles than overhead construction.

#### Additional Permitting and Mitigation Requirements

In addition to the increased construction cost, Alternative No. 7 would also require approximately 2.5 miles of new easement from MCAS Miramar, and a much more intensive NEPA review that would result from the granting of the new easement. Both the new easement approval and the NEPA compliance process would add potentially significant schedule delays and cost increases when compared to the alternatives that connect the two substations from the east (utilizing existing easement within MCAS Miramar). Alternative No. 7 could also result in additional review and approval for new construction within the Coastal Zone as the Alternative No. 7 route passes through portions of the Coastal Zone as it approaches the Peñasquitos Substation from the south.

### Schedule

As previously discussed, the construction schedule for Alternative No. 7 would likely be longer and more intensive than the Proposed Project due to the amount of underground construction required. An additional schedule consideration for Alternative No. 7 is the requirement for new easement within MCAS Miramar. Approval of new easement (approximately 2.5 miles) from MCAS Miramar would require discretionary approval and intensive NEPA compliance that could significantly extend the overall project and permitting schedule when compared to the Proposed Project.

### Reliability During Maintenance and Repair

Alternative No. 7 would include the operation and maintenance of an approximately 15 mile underground transmission line. By nature, underground transmission lines are less accessible for maintenance and repair due to their location underground. Alternative No. 7 would include significantly more underground transmission line than all other alternatives considered, including the Proposed Project. Therefore, potential reliability concerns for maintenance and repair of the Alternative No. 7 transmission line would be significantly higher than the Proposed Project (which is proposed to be approximately 83 percent overhead) or any of the other alternatives considered.

### Conclusion

Alternative No. 7 (underground alternative) was ultimately rejected due to the increased approval requirements on MCAS Miramar and associated schedule uncertainty, high construction costs, longer and more intensive construction schedule, and non-achievement of Objective No. 2 (utilization of existing ROW and utility corridors).

# 5.2.4.5 <u>Cable Pole Structure Options</u>

As discussed in Section 3.3.2, Segment B – Carmel Valley Road, SDG&E is considering an alternate option for each of the two required new 230 kV cable pole structures. These alternate options are further discussed below. Cable pole structures, or cable poles, are utilized to transfer electric transmission, power, or distribution lines from overhead to underground positions. Therefore, a cable pole structure is required at the beginning and end of every underground segment of electric utility line. With respect to the Proposed Project, new 230 kV cable pole structures are required at the east and west termini of Segment B.

### East Cable Pole Options

SDG&E is currently considering an alternate option for the eastern cable pole (connection of Proposed Project Segments A and B), as follows:

- Proposed Project Option: Double-circuit monopole structure north of Carmel Valley Road, within Black Mountain Ranch Community Park (Structure No. P41 refer to Appendix 3-B).
- Alternate Option: 3-pole structure south of Carmel Valley Road (Structure No. P41[A]- see Figure 5-2, Alternate East Cable Pole Option Map).

### Proposed Project East Cable Pole Option

The Proposed Project East Cable Pole option would be a tubular, steel, monopole (single pole), double-circuit structure located within Black Mountain Ranch Community Park (Structure No. P41 – refer to Appendix 3-B), approximately 350 feet north of Carmel Valley Road. Black Mountain Ranch Community Park is an existing sports facility that supports mainly baseball and soccer activities (refer to Sections 4.9, 4.12, and 4.13). The Proposed Project option would be approximately 160 feet tall and would also support TL 13825, requiring it to be a double-circuit structure. The Proposed Project option would replace an existing single-circuit, wood H-frame structure approximately 83 feet in height (Structure No. R47) that currently supports TL 13825. Compared to the Alternate option discussed below, the Proposed Project option would require a slightly longer underground segment, and one additional underground splice vault that would be located within the driveway to Black Mountain Ranch Community Park, as further described in Section 3.3.2. Figure 4.1-9 depicts a visual rendering of how the Proposed Project east cable pole option would appear following construction.





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### Alternate East Cable Pole Option

The Alternate East Cable Pole option would be a tubular, steel, 3-pole (low profile) structure located immediately south of Carmel Valley Road within existing SDG&E ROW (Structure No. P41[A] – refer to Figure 5-2). The Alternate option would utilize three separate structures, one for each of the three phases of the new 230 kV transmission line. Two of the three structures would be approximately 55 feet tall and would be utilized to transition one phase each of the circuit into an underground position. The third structure (which would be located furthest east) would be approximately 85 feet tall and would support the third phase of circuit as well as the OPGW. The third structure is taller than the other two in order to support the overhead OPGW. The Alternate option would require a slightly shorter underground segment than the Proposed Project option, and would not require an underground splice vault within the driveway to Black Mountain Ranch Community Park.

### West Cable Pole Options

SDG&E is currently considering an alternate option for the western cable pole (connection of Proposed Project Segments B and C), as follows:

- Proposed Project Option: Double-circuit monopole structure south of Carmel Valley Road (Structure No. P42 refer to Appendix 3-B).
- Alternate Option: Double-circuit monopole structure north of Carmel Valley Road, within the Evergreen Nursery (Structure No. P42[A] see Figure 5-3, Alternate West Cable Pole Option Map).

### Proposed Project West Cable Pole Option

The Proposed Project West Cable Pole option would be a tubular, steel, monopole double-circuit structure located approximately 100 feet south of Carmel Valley Road within existing SDG&E ROW (Structure No. P42 – refer to Appendix 3-B). The Proposed Project option would be approximately 165 feet tall and would also support TL 23004. Structure No. P42 would replace existing Structure No. R48, which is a double-circuit steel lattice tower approximately 127 feet in height that currently supports TL 23001 and TL 23004. Figure 4.1-10 depicts a visual rendering of how the Proposed Project west cable pole option would appear following construction.

### Alternate West Cable Pole Option

The Alternate West Cable Pole option would be a tubular, steel, double-circuit monopole structure located within the Evergreen Nursery, approximately 200 feet north of Carmel Valley Road (Structure No. P42[A] – refer to Figure 5-3). The Alternate option would be approximately 145 feet tall and would not directly replace any existing structures including Structure No. R48, which would be removed under the Proposed Project option.

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	Sycamo	ore to Peñasquitos 230 kV Transmission Line Project			
New 230 kV Overhead Alter	rnative Route	e Alternate West Cable Pole Option Map			
Figure 5-3					
Existing 138 kV	🕂 C	Cable Poles			
—— Reconductor 230 kV	₽ - ₩ S	Structure to be Removed			
New 230 kV Proposed Route	е				
-+++ New 230 kV Underground P	roposed Rou	ute CDGE			
0 100 200	300 Feet Sources: SDG&E, 2013;	B; National Geographic, Esri, DeLorme, NAVTEQ, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, IPC			

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#### Attainment of Project Objectives by the Cable Pole Options

#### Objective No. 1

While detailed engineering has not been conducted for the alternate cable pole options described above, SDG&E anticipates that it could design, construct, and operate both the Proposed Project and Alternate option to meet the Functional Specifications identified by CAISO in its 2012-2013 Transmission Plan and as such, both the Proposed Project and Alternate cable pole options would meet Objective No. 1 in a similar manner as the Proposed Project.

#### Objective No. 2

Both the Proposed Project and Alternate cable pole options would utilize existing SDG&E ROW. However, all of the Proposed Project and Alternate cable pole options with the exception of the Proposed Project east cable pole option (Structure No. P41A) would require an amendment to the existing ROW agreement to allow for underground electric utility lines. Therefore, both the Proposed Project and Alternate cable pole options are considered to meet Objective No. 2 in a similar manner to the Proposed Project.

#### Conclusion

The Proposed Project and Alternate cable pole options for the west and east ends of Proposed Project Segment B would meet both project objectives and would not cause any additional significant long- or short-term impacts. SDG&E plans to implement the Proposed Project option, pending any significant unforeseen changes that would require a reassessment.

#### 5.3 GROWTH-INDUCING IMPACTS

CEQA requires a lead agency to review and discuss whether a project would foster economic or population growth, either directly or indirectly, in the surrounding environment. The *CEQA Guidelines* consider a project to be growth-inducing if it fosters economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding area. New employees hired for proposed commercial and industrial development projects and population growth resulting from residential development projects represent *direct* forms of growth. Other examples of *indirect* forms of growth-inducing projects are the expansion of urban services into previously undeveloped areas or the removal of major obstacles to growth, such as transportation corridors and potable water supply.

Consistent with the *CEQA Guidelines*, the Proposed Project could be considered to have growthinducing impacts if it would either directly or indirectly foster economic or population growth within the cities of San Diego or Poway, or remove existing obstacles to growth in these areas above what would be expected without the Proposed Project. The Proposed Project could also have a growth-inducing impact if it would provide a substantial amount of new employment, create a substantial new burden on existing communities, provide access to previously inaccessible areas or extend public services to previously un-served areas, or cause new development elsewhere (outside of the Proposed Project area [cities of San Diego and Poway and the County of San Diego]). As explained previously, the Proposed Project generally entails the construction of new transmission line facilities and the replacement or relocation of existing power line and transmission line facilities as-needed in order to accommodate the new 230 kV transmission line between the existing Sycamore Canyon and Peñasquitos Substations. The installation of this new 230 kV transmission line would provide at least 1175 MVA of additional capacity. Specifically, the installation of an additional 230 kV high-voltage outlet at the Sycamore Canyon substation would allow the delivery of power directly to the coastal load center rather than forcing it onto the existing 138 kV and 69 kV networks. As a result, the Proposed Project would relieve congestion on existing lower-voltage facilities. Although the Proposed Project would improve electrical service reliability in the Proposed Project service area, implementation of the Proposed Project would not result in any significant growth-inducing environmental effects.

# **5.3.1** Economic or Population Growth

# 5.3.1.1 Background and Anticipated Growth in the Proposed Project Area

As outlined in Section 4.11, Population and Housing, San Diego County is projected to grow to a total population of 3,535,000 by the year 2020, an increase of approximately 357,937 people (or approximately 11.3 percent) as predicted by the SANDAG Demographics & Other Data- Fast Facts (October, 2013). The populations within the cities of San Diego and Poway are anticipated to grow to 1,542,324 (from 1,338,348) and 54,054 (from 49,071), respectively. These increases represent growth of approximately 15.2 and 10.2 percent, respectively, above 2012 populations.

# 5.3.1.2 Growth and the Proposed Project

The Proposed Project would be implemented to ensure the reliability of the existing transmission system, meet State of California policy goals, accommodate load growth, and improve system efficiency. Additionally, a major secondary objective is to locate the Proposed Project facilities within existing transmission corridors, SDG&E ROW, utility owned property and City of San Diego franchise position. The Sycamore Canyon Substation is one of two major gateways for energy imported from the east into the San Diego metropolitan area to serve customer load. As the San Diego metropolitan area load continues to increase, the imports into the Sycamore Canyon Substation would also increase, thus further necessitating the need for an additional 230 kV high-voltage outlet at the Sycamore Canyon Substation. This need outlined within a Functional Specification issued by CAISO for the Proposed Project would be satisfied by extending a new 230 kV transmission line from the existing Sycamore Canyon Substation to the existing Peñasquitos Substation. As previously mentioned this would allow the delivery of power directly to the coastal load center rather than forcing it onto the 138 kV and 69 kV networks, resulting in relieved congestion on these lower-voltage facilities.

The Proposed Project is not being implemented in advance of growth but, rather, to improve the reliability of the existing transmission system in the San Diego metropolitan area. As discussed in Chapter 2.0, Proposed Project Purpose and Need, SDG&E is legally required to adhere to reliability requirements consistent with CPUC General Orders, CAISO Tariff provisions, NERC/FERC requirements, and SDG&E internal standards. The Proposed Project would not increase housing or bring in new services, but would improve the existing infrastructure system by making the system more reliable, adding additional capacity and consolidating two existing

power lines onto new double-circuit, steel structures that would replace existing, predominantly wood structures along Segment A of the proposed route.

The Proposed Project involves the construction of new transmission line facilities and the replacement or relocation of existing power line and transmission line facilities as-needed in order to accommodate the new 230 kV transmission line. The proposed transmission line between Sycamore Canyon and Peñasquitos Substations would utilize approximately 13.6 miles of existing ROW, and approximately 2.8 miles of franchise ROW in the City of San Diego along an existing street (Carmel Valley Road). This would accommodate existing and projected demand in the service area by providing additional electrical transmission system capacity and improving system reliability. If these improvements are not implemented, a deterioration of services and an increased likelihood of system instability could result. The Proposed Project would not directly or indirectly foster growth or remove obstacles to economic or population growth in the area.

### 5.3.2 New Employment

The Proposed Project would provide short-term construction employment, but no new permanent employment increase. Construction activities are expected to take approximately 12 months under normal conditions. During peak construction times, SDG&E would employ up to approximately 100 workers per day, during the peak of construction, including construction crews, environmental monitors and all other support staff. SDG&E would supplement its workforce as needed during construction from a contractor's pool of experienced personnel. This workforce would derive from existing local residents in the San Diego area and it is not anticipated that a substantial numbers of workers would need to reside temporarily at local lodging establishments. The limited, temporary nature of employment for this pool of workers would not result in long-term growth within the Proposed Project area.

Furthermore, operation and maintenance activities for the Proposed Project would be performed by current SDG&E personnel, and no new jobs would be required. As a result, the Proposed Project would not induce any increase in employment.

### 5.3.3 Extended Access or Public Services

The Proposed Project would add one new 230 kV transmission line that would be located within existing utility corridors and within franchise position. All proposed new and relocated facilities are located in existing SDG&E ROWs that currently contain similar facilities that are currently operated and maintained, except for the new underground segment of 230 kV transmission line within Carmel Valley Road. The new 230 kV transmission would provide for the transmission of bulk electric power, and would not create new customer-level (distribution line) facilities. Thus, the Proposed Project would not provide access to previously inaccessible areas, or extend public services to any currently un-served areas. SDG&E currently provides electric service to the Proposed Project areas and the Proposed Project does not include the expansion of the electric system into areas that currently do not have electric service infrastructure. Therefore, the Proposed Project would not induce growth by extending access or public services (electric service infrastructure) into areas that are currently un-served.

# 5.3.4 Existing Community Services

The Proposed Project would not significantly impact existing community services, and no new or altered governmental services would be required as a result of project operations. The Proposed Project would not generate a new permanent demand for water, wastewater, or solid waste services, and its demand for City- and County-provided services, such as road improvements, law enforcement, and fire protection, would be negligible, and short-term (for construction) and equal to or less than existing demand for operations and maintenance. Due to the fact the Proposed Project utilizes existing utility corridors, structures, and franchise position, operation and maintenance of the new transmission line would largely mirror current operation and maintenance conditions, and as such there would be no impact to existing community services. The entirety of the Proposed Project constitutes a replacement or enhancement of existing facilities and, as such, SDG&E has existing operations and maintenance resources available to service the Proposed Project upon completion.

# 5.3.5 New Development

The Proposed Project would not promote new development, either in the San Diego area (including the cities of San Diego or Poway) or elsewhere, because it is primarily a response to existing and planned development and to improve the reliability of an existing electrical system for present and planned development. The Proposed Project would satisfy SDG&E's obligation to accommodate the demand that the development market and local governments have projected or planned. Established and locally supported patterns of development and growth carry with them a corresponding electrical demand that SDG&E is obligated to anticipate and serve to avoid the consequences of electrical overload, as discussed in Section 2.0, Proposed Project Purpose and Need. The Proposed Project would not directly or indirectly cause or promote new development that would not otherwise be constructed, as approved through local land use approval processes.

# 5.3.6 Conclusion

The Proposed Project is designed to improve transmission system reliability and increase capacity for projected load growth in the San Diego metropolitan service area. With the addition of a new 230 kV transmission line between the Sycamore Canyon and Peñasquitos Substations, the proposed system would meet state environmental and energy policy goals and CAISO's Functional Specifications for the Project including all NERC, CAISO, and WECC transmission planning standards (refer to Section 2.0, Proposed Project Purpose and Need). The Proposed Project would mitigate transmission overloads identified by CAISO and SDG&E, by delivering the power efficiently and effectively to the coastal San Diego load center (refer to Figure 2-2, 2013 Load Distribution) rather than forcing the power through the existing 138 kV and 69 kV network systems. Additionally, the Proposed Project is one of the power system upgrades identified by CAISO in the event of the unplanned closure of the SONGS. Consequently, Southern California Edison has recently announced (June of 2013) of the permanent retirement of SONGS after an unplanned, yearlong outage. Additional benefits of the Proposed Project would include the reduction of the risk of a service interruption resulting from a transmission failure, infrastructure improvement of existing transmission lines, and the fact that the Proposed Project is located entirely within existing utility corridors and franchise position.

The Proposed Project would not create a new customer-level service or source of power that would indirectly allow for an increase in population, housing, or other development because the Proposed Project would not extend electrical service infrastructure into previously un-served areas. The Proposed Project would accommodate existing and planned power demands in SDG&E's service territory through increasing the transmission system reliability. SDG&E responds to projected development and forecasts, rather than inducing growth by extending infrastructure for future unplanned development. The Proposed Project would require new employment for construction activities; however, most of the construction force is anticipated to come from the existing local workforce from a pool of existing SDG&E electrical personnel and contractors. Operation and maintenance of the Proposed Project would be similar to existing transmission and power line networks that currently connect the substations and the existing transmission and power line networks that currently connect the substations and other local substations, with the exception of the new underground transmission line (Segment B) within Carmel Valley Road, which lies within an existing roadway (franchise position). Therefore, the Proposed Project would not induce growth, directly or indirectly, and no impacts are anticipated.

# 5.4 **REFERENCES**

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