SOUTH ORANGE COUNTY RELIABILITY ENHANCEMENT PROJECT

RECIRCULATED DRAFT ENVIRONMENTAL IMPACT REPORT

AUGUST 2015

A.12-05-020

SCH NO. 2013011011



Prepared for:



State of California Public Utilities Commission ecology and environment, inc.
Global Environmental Specialists

Prepared by:

PUBLIC UTILITIES COMMISSION 505 VAN NESS AVENUE SAN FRANCISCO, CA 94102-3298

NOTICE OF AVAILABILITY SAN DIEGO GAS AND ELECTRIC COMPANY SOUTH ORANGE COUNTY RELIABILITY ENHANCEMENT PROJECT RECIRCULATED DRAFT ENVIRONMENTAL IMPACT REPORT



Si usted necesita más información o una copia de este documento en español, por favor, llame al (855) 520-6799 o visite la siguiente página Web. <u>http://tinyurl.com/clsee4g</u>

San Diego Gas and Electric Company (SDG&E) filed an application for a Certificate of Public Convenience and Necessity (CPCN) with the California Public Utilities Commission (CPUC) for the South Orange County Reliability Enhancement (SOCRE) project to rebuild and upgrade a portion of its transmission infrastructure in South Orange County. The purpose of this Notice of Availability is to announce that the CPUC's Recirculated Draft Environmental Impact Report (EIR) is available for public review and comment.

Background

This Recirculated Draft EIR is part of the ongoing environmental review process for the SOCRE project. The CPUC, as the Lead Agency, prepared a Draft EIR for the SOCRE project and circulated the Draft EIR for public comment for a 45-day period beginning February 23, 2015, and ending April 10, 2015. This Recirculated Draft EIR is considered a partially recirculated EIR because significant new information and analyses have been added or changed in portions of the Draft EIR after it was circulated for public comment in February 2015.

Additionally, the Recirculated Draft EIR contains a new alternative, called the Trabuco Alternative, that was suggested by the public during review of the Draft EIR. Subsequent analysis by the CPUC has shown that the alternative is feasible from a technological, legal, and economic perspective and warrants inclusion in the EIR. The Recirculated Draft EIR adds a description of the alternative to Chapter 3, "Description of Alternatives." A description of the environmental effects resulting from the implementation of the alternative, as compared to the applicant's proposal, has been added to Chapter 5, "Comparison of Alternatives."

Project Description

The proposed project would consist of the following primary components:

- Rebuilding and upgrading the 138/12-kilovolt (kV) 60-megavolt ampere air-insulated Capistrano Substation as a 230/138/12-kV 700-megavolt ampere gas-insulated substation that would be named San Juan Capistrano Substation;
- Replacing a single-circuit 138-kV transmission line between the applicant's Talega and Capistrano substations with a new double-circuit 230-kV transmission line (approximately 7.8 miles long);
- Relocating several transmission line segments (approximately 1.8 miles total) adjacent to Talega and Capistrano substations to accommodate the proposed San Juan Capistrano Substation and new 230-kV line; and
- Relocating several 12-kV distribution lines segments (approximately 6 miles) into underground conduit and overhead on existing and new structures located between the Capistrano Substation and Prima Deshecha Landfill.

Construction of the proposed SOCRE project would take approximately 64 months. The proposed project would be constructed within the cities of San Juan Capistrano and San Clemente, unincorporated Orange County, and United States Marine Corps land in San Diego County.

Significant Adverse Environmental Impacts from the Proposed Project

The Recirculated Draft EIR has identified additional significant impacts on biological resources, cultural resources, and land use and planning from construction and operation of the proposed project that were not previously disclosed in the Draft EIR. The following impacts have been revised in the Recirculated Draft EIR:

Biological Resources: Construction and operation activities for the proposed project would be required within the boundaries of the Talega Conservation Easement (unrecorded) and the Prima Deshecha Conservation Easement (recorded). Both conservation easements were established under the Orange County Southern Subregion Habitat Conservation Plan (HCP). Additional coordination with the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife is needed to determine the proposed project's potential to conflict with HCPs and Natural Community Conservation Plans in the area; therefore, impacts would be considered significant until the completion of SDG&E coordination requirements detailed in Section 6.2 of the SDG&E Natural Community Conservation Plan prove otherwise.

Cultural Resources: In April 2015, the State Historic Resources Commission recommended to the Keeper of the National Register of Historic Places (NRHP) that a former utility structure at the existing Capistrano Substation property be approved as eligible for inclusion in the NRHP. Criteria for eligibility of the California Register of Historic Places is the same as the criteria for eligibility for the NRHP. Therefore, the CPUC has found that demolition of the Capistrano Substation, as proposed by the applicant, would result in a significant adverse impact to a historical resource as defined in Section 15064.5 of the California Environmental Quality Act (CEQA) Guidelines.

Land Use and Planning: Section 9-3.305 of the San Juan Capistrano Municipal Code defines building setbacks, floor area standards, and height limitations for buildings by zoning type. The proposed San Juan Capistrano Substation includes the construction of 50-foot-tall buildings in the Commercial Manufacturing district, which significantly conflicts with the applicable building height limit of 35 feet under the San Juan Capistrano Municipal Code. Additionally, similar to significant impacts discussed for biological resources, the proposed project may also conflict with two conservation easements established under the Orange County Southern Subregion HCP.

No portion of the proposed project would be located on a hazardous materials site identified under Government Code Section 65962.5.

Recirculated Draft EIR Information/ Public Review Period

Consistent with the provisions of Section 15088.5 of the CEQA Guidelines, portions of the Draft EIR have been revised with new information, and only revised chapters and sections are being recirculated. This Recirculated Draft EIR comprises the following chapters:

- **Chapter 1, Introduction**, provides a brief overview of the proposed project, CEQA compliance activities conducted to date, and the purpose of this Recirculated Draft EIR and outlines the contents and organization of the Recirculated Draft EIR.
- Chapter 2, Revisions to the Draft EIR, assists the reader in identifying specific significant revisions to the Draft EIR as a result of comments received during the public review process for the Draft EIR. Revisions were made to the following chapters and sections of the Draft EIR:
 - Chapter 3, "Description of Alternatives";
 - o Section 4.4, "Biological Resources";
 - o Section 4.5, "Cultural Resources";
 - o Section 4.10, "Land Use and Planning"; and
 - o Chapter 5 "Comparison of Alternatives"

- Chapter 3, Report Preparation, provides a list of the individuals involved in the preparation of the Recirculated Draft EIR.
- Chapter 4, References, provides a list of new references used in the Recirculated Draft EIR.

The Recirculated Draft EIR is available on the internet at: <u>http://tinyurl.com/clsee4g</u>. Hardcopies of the Recirculated Draft EIR are available at the following repositories:

- San Juan Capistrano Regional Library: 31495 El Camino Real San Juan Capistrano, CA 92675 (949) 493-1752
- San Clemente Library: 242 Avenida Del Mar San Clemente, CA 92672 (949) 492-3493

The CPUC will receive comments on the Recirculated Draft EIR during a 45-day period starting August 10, 2015, and ending September 24, 2015. The CPUC requests that reviewers focus their comments specifically on the new content included in the Recirculated Draft EIR, consistent with the provisions of Section 15088.5 of the CEQA Guidelines. **Comment letters submitted on the previously circulated Draft EIR will be addressed in the Final EIR and do not need to be resubmitted.** Comments received during the public review period of the Recirculated Draft EIR on content not addressed in the Recirculated Draft EIR will not be addressed in the Final EIR. Written comments on the Recirculated Draft EIR may be submitted using any of the following methods:

Email: <u>SOCRE.CEQA@ene.com</u> Fax: 415-398-5326 Mail: California Public Utilities Commission RE: SOCRE Project c/o Ecology and Environment, Inc. 505 Sansome Street, Suite #300 San Francisco, CA 94111

No public meetings will be hosted by the CPUC during this public review period.

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SOUTH ORANGE COUNTY RELIABILITY ENHANCEMENT PROJECT

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Prepared for:

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Acronyms and Abbreviations

ACHP	Advisory Council on Historic Preservation
ACSR	aluminum conductor steel reinforced
ACSS	aluminum conductor steel supported
APM	Applicant Proposed Measure
applicant	San Diego Gas & Electric Company
BCC	United States Fish and Wildlife Service Birds of Conservation Concern
BEAP	Base Exterior Architecture Plan
BOD	Buildings of Distinction
CAISO	California Independent System Operator
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFM	Coastal Freshwater Marsh
CFR	Code of Federal Regulations
cmil	circular mil
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CSS	Coastal Sage Scrub
CWA	Clean Water Act of 1977
EIR	Environmental Impact Report
ESA	Federal Endangered Species Act
FC	California Department of Fish and Wildlife Candidate Species
FE	Federally Endangered
FP	California Department of Fish and Wildlife Fully Protected Species
FT	Federally Threatened
HCP	Habitat Conservation Plan
HSC	California Health and Safety Code
I-5	Interstate 5
INRMP	Integrated Natural Resources Management Plan
kV	kilovolt
LST	local significance threshold
Marine Corps	United States Marine Corps
MCB	Marine Corps Base
MCB	Marine Corps Base
MM	Mitigation Measure
MVA	megavolt amperes
MVAR	mega volt amperes reactive
MW	megawatt
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan

NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
NRHP	National Register of Historic Places
PDL	Prima Deschecha Landfill
PEA	Proponent's Environmental Assessment
PRC	Public Resources Code
R	Rare
RMV	Rancho Mission Viejo
ROG	reactive organic gas
ROW	right-of-way
ROW	right-of-way
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SDG&E	San Diego Gas & Electric Company
SHRC	State Historic Resources Commission
SR-74	State Route 74
SSC	California Department of Fish and Wildlife Species of Special Concern
SWS	Southern Willow Scrub
TRC	TRC Solutions, Inc.
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WL	California Department of Fish and Wildlife Watch List Species

1.0 Introduction

This Recirculated Draft Environmental Impact Report (EIR) for the South Orange County Reliability
Enhancement project (proposed project) has been prepared to inform the public of changes to the
document resulting from the identification of a new alternative to the proposed project as well as
additional information regarding the proposed project's impacts on biological, cultural, and land use and
planning resources.

1.1 Project Overview

San Diego Gas & Electric Company (SDG&E, or the applicant) filed an application (No. A.12-05-020), including a Proponent's Environmental Assessment, with the California Public Utilities Commission (CPUC) on May 18, 2012, for a Certificate of Public Convenience and Necessity to construct the proposed project. The CPUC is the lead agency for review of the proposed project pursuant to the California Environmental Quality Act (CEQA).

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17 The proposed project would serve customers within the applicant's South Orange County Service Area. 18 The project would include a rebuilt 230/138/12-kilovolt (kV) substation (proposed San Juan Capistrano 19 Substation) at the location of the existing 138/12-kV Capistrano Substation site in San Juan Capistrano, 20 California; the construction of a new double-circuit 230-kV transmission line (approximately 7.8 miles 21 long) from the proposed San Juan Capistrano Substation to the applicant's 230/138/69-kV Talega 22 Substation within an existing transmission line corridor; the relocation of several transmission line 23 segments (approximately 1.8 miles total) adjacent to Talega and Capistrano substations to accommodate 24 the proposed expansion of Capistrano Substation and new 230-kV line; and the relocation of several 12-25 kV distribution line segments (approximately 6 miles) into underground conduit and overhead on existing 26 and new structures located between Capistrano Substation and Prima Deshecha Landfill. The applicant 27 estimates that construction would take approximately 64 months; if the proposed project is approved and 28 construction begins in 2016, the facility could be operational in 2020.

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1.2 California Environmental Quality Act Compliance

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32 The Draft EIR for the proposed project was prepared in compliance with CEQA and the CEQA 33 Guidelines (California Code of Regulations, Title 14). As described in the CEQA Guidelines, Section 34 15121(a), an EIR is a public information document that assesses the potential environmental effects of a 35 project, as well as identifying mitigation measures and project alternatives that could reduce or avoid the 36 project's adverse environmental impacts. CEOA guidelines require that state and local government 37 agencies consider the environmental consequences of a project over which they have discretionary 38 authority. Consequently, the Draft EIR for the proposed project (along with this Recirculated Draft EIR) 39 is an informational document to be used in the planning and decision-making process. It is not the 40 purpose of an EIR to recommend either approval or denial of a project. The procedures required by 41 CEQA "are intended to assist public agencies in systematically identifying both the significant effects of 42 proposed projects and the feasible alternatives or feasible mitigation measures which will avoid or 43 substantially lessen such significant effects" (Public Resources Code Section 21002).

44

45 The Draft EIR for the proposed project was submitted to the State Clearinghouse (SCH 2013011011) and

- 46 released for public review and comment for 45 days (February 23, 2015, through April 10, 2015). A
- 47 Notice of Availability was published in local newspapers and sent via mail to interested parties. Public
- 48 meetings were held in San Juan Capistrano and San Clemente on March 25, 2015. The Draft EIR was also
- 49 made available for public review at several locations, including local libraries and the CPUC's website

(http://www.cpuc.ca.gov/Environment/info/ene/socre/socre.html). The CPUC received approximately 400 comments during the Draft EIR public comment period.

1.2.1 Requirements for Recirculation

A lead agency is required to recirculate a Draft EIR prior to certification when "significant new information" is added to the EIR after the public review period begins (CEQA Guidelines Section 15088.5). New information is deemed significant if it reveals the following:

- A new significant environmental impact resulting from either the project itself or a new proposed mitigation measure;
- A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance;
- A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project proponent declines to adopt it; or
- The Draft EIR was so fundamentally flawed that it precluded meaningful public review and comment.
- In addition, a lead agency may choose to recirculate an EIR if additional studies or analysis is conducted for a project before a specific action is taken by local decision makers to approve a project.
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Recirculation may be limited to those chapters or portions of the EIR that have been modified. Public
 notice and circulation of the Recirculated Draft EIR is required, per CEQA Guidelines Sections 15086
 and 15087.

26 **1.2.2** Purpose of this Recirculation Draft EIR

The CPUC has revised and is circulating for public review portions of the following sections and chapters of the Draft EIR to address a new alternative to the proposed project as well as additional information regarding the proposed project's impacts on biological, cultural, and land use and planning resources:

- Chapter 3, "Description of Alternatives";
- Section 4.4, "Biological Resources";
- Section 4.5, "Cultural Resources";
- Section 4.10, "Land Use and Planning"; and
- Chapter 5 "Comparison of Alternatives."

This additional information affected both the analysis and impact conclusions for the proposed projectand the environmentally superior alternative as originally presented in the Draft EIR.

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39 **1.2.3 Summary of Revisions**

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41 **Chapter 3, Description of Alternatives**

42 Chapter 3 has been revised to include a new alternative, called the Trabuco alternative, that was suggested

during the public review of the Draft EIR. The Trabuco alternative involves the expansion of SDG&E's
 existing Trabuco substation to add an additional source of 230-kV power into the South Orange County

existing Trabuco substation to add an additional source of 230-kV power into the South Orange County
 138-kV transmission system. This alternative is geographically distinct from the applicant's proposal,

46 meets most of the basic project objectives, and reduces or avoids impacts identified as significant in the

Draft EIR. The Trabuco alternative has been added as part of the Recirculated Draft EIR. Additional
 information pertaining to this alternative can be found in Chapters 3 and 5.

4 Chapter 4.4 Biological Resources

- 5 During the public review process, the U.S. Fish and Wildlife Service and California Department of Fish
- 6 and Wildlife determined that a portion of new right-of-way (ROW) required under the applicant's
- 7 proposed project would cross land within the boundaries of the Talega Conservation Easement
- 8 (unrecorded) and that impacts associated with project construction may occur within the Prima Deshecha 9 Conservation Easement (recorded) that are outside of the applicant's existing ROW. Establishing new
- 9 Conservation Easement (recorded) that are outside of the applicant's existing ROW. Establishing new 10 ROW in the Talega Conservation Easement and ground-disturbing activities occurring outside of the
- applicant's existing ROW and within the Prima Deshecha Conservation Easement were not disclosed in
- the Draft EIR, and potential impacts were not evaluated. Both conservation easements were established
- 13 under the Orange County Southern Subregion Habitat Conservation Plan. A discussion of impacts
- 14 associated with the proposed project's potential to conflict with an applicable habitat conservation plan or
- 15 natural community conservation plan has been added to Section 4.4, "Biological Resources."
- 16

17 Section 4.5 Cultural Resources

- 18 After release of the Draft EIR, the State Historic Resources Commission voted unanimously in favor of
- 19 recommending the former utility structure (historic site 30-179873) on the Capistrano Substation property
- 20 eligible for listing in the National Register of Historic Places (NRHP). The recommendation was
- 21 forwarded to the Keeper of the NRHP on July 17, 2015. The nomination of the structure for listing in the
- 22 NRHP changes the baseline condition of the Cultural Resources evaluation. An updated project setting
- and impact analysis based on those updates has been added to Section 4.5, "Cultural Resources."

25 Section 4.10 Land Use

- 26 During the public comment period on the Draft EIR, the City of San Juan Capistrano filed a comment 27 letter that, among other things, identified that the applicant's proposal exceeded the City's building height
- letter that, among other things, identified that the applicant's proposal exceeded the City's building height
 restrictions in the Commercial Manufacturing District zone. The regulatory setting and impact analysis
- 28 restrictions in the Commercial Manufacturing District zone. The regulatory setting and impact analysis 29 portions of Section 4.10 have been updated with this information. Additionally, Chapter 4.10 has been
- 30 updated to include a discussion of the proposed project's potential to conflict with an applicable habitat
- 31 conservation plan or natural community conservation plan, as discussed above under "Section 4.4
- 32 Biological Resources."
- 33

34 Chapter 5 Comparison of Alternatives

- Chapter 5 has been updated to include the analysis of the new Trabuco alternative identified during public review of the Draft EIR. The updated analysis contains a summary of the environmental effects of the new Trabuco alternative relative the environmental effects of the proposed project. This chapter has also been updated to include the Trabuco alternative as the new environmentally superior alternative.
- 39

40 **1.2.4 Recirculated Draft EIR Process**

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Publication of this Recirculated Draft EIR commences a 45-day public review period that ends on
September 24, 2015. The public is invited to comment on only those portions of the document that have
been revised and included in this Recirculated Draft EIR, per CEQA Guidelines Sections 15088.5(f)(2)
and 15087(e).

- 46
- 47 After the close of the public review period, the CPUC will prepare a Final EIR that contains a response to 48 each public agency, organization, and individual that commented during the initial circulation period that
- 49 pertain to those portions of the Draft EIR that were not recirculated, and all comments received during the
- 50 recirculation period that pertain to the recirculated portions of the Draft EIR (CEQA Guidelines
- 51 Section15088.5(f)(2)).

1.3 Organization of the Recirculated Draft EIR

The chapters that make up this Recirculated Draft EIR are as follows:

- **Chapter 1, Introduction**, provides a brief overview of the proposed project, CEQA compliance activities conducted to date, the purpose of this Recirculated Draft EIR and outlines the contents and organization of the Recirculated Draft EIR.
- Chapter 2, Revisions to the Draft EIR, assists the reader in identifying specific significant revisions to the Draft EIR, as a result of comments received during the public review process for the Draft EIR. (It is possible that additional minor revisions to these chapters and sections will be made in response to other comments.) Revisions were made to the following chapters and sections:
- 14 Chapter 3, "Description of Alternatives";
- 15 o Section 4.4, "Biological Resources";
- 16 o Section 4.5, "Cultural Resources";

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- 17 o Section 4.10, "Land Use and Planning"; and
- 18 o Chapter 5 "Comparison of Alternatives"
- Chapter 3, Report Preparation, provides a list of the individuals involved in the preparation of the recirculated Draft EIR.
- Chapter 4, References, provides a list of new references used in the Recirculated Draft EIR.

2.0 Revisions to the Draft EIR

This chapter contains revisions to the following chapter and sections of the Draft EIR:

- 3 4 Chapter 3, "Description of Alternatives"; 0 5 0 Section 4.4, "Biological Resources"; 6 Section 4.5, "Cultural Resources": 0 7 0 Section 4.10, "Land Use and Planning"; and 8 Chapter 5 "Comparison of Alternatives" 0 9 The revised chapters and sections are included in their entirety. Deletions are identified with strike though 10 text-and additions are underlined. 11 3 **Description of Alternatives** 12 13 14 This chapter describes the alternatives to the South Orange County Reliability Enhancement Project (proposed project) under consideration in this Environmental Impact Report (EIR), as 15 16 well as the process used to screen and develop them. The discussion in Chapter 5, "Comparison of Alternatives," compares the environmental advantages and disadvantages of the proposed 17 18 project with those of the alternatives. An Environmentally Superior Alternative is proposed in 19 Chapter 5. Provisions of the California Environmental Quality Act (CEQA) Guidelines (Section 20 15126.6) that address project alternatives in an EIR state the following: 21 22 The range of alternatives required in an EIR is governed by a "rule of reason." Therefore, the EIR • 23 must evaluate only those alternatives necessary to permit a reasonable choice. The alternatives 24 shall be limited to those that would avoid or substantially lessen any of the significant effects of a 25 proposed project. 26 A No Project Alternative shall be evaluated, along with its impacts. The purpose of describing • 27 and analyzing a No Project Alternative is to allow decision-makers to compare the effects of 28 approving the proposed project with the effects of not approving the proposed project. 29 An EIR does not need to consider an alternative whose effects cannot reasonably be ascertained • 30 and whose implementation is remote and speculative.
- 31 32

1 2

3.1 Alternatives Development and Screening Process

33

34 The Alternatives Screening Report (Appendix B) documents the alternatives development and 35 screening analysis conducted to determine the range of alternatives for consideration in this EIR. 36 It documents the criteria used to evaluate and select alternatives for further analysis, including 37 their feasibility, the extent to which they would meet most of the basic objectives of the proposed 38 project, and their potential to avoid or substantially lessen any of the significant effects of the 39 proposed project. The Alternatives Screening Report provides a complete description of each 40 alternative considered during screening, including figures, and discusses why each alternative was either eliminated from further consideration or retained for further consideration in this EIR. 41 42 The alternatives reviewed included alternative substation sites, alternative transmission line 43 routes, reduced footprint alternatives, and alternatives to constructing new transmission facilities or that would reconductor existing transmission lines. Alternative J, which was identified during 44

the Draft EIR public comment period, was not screened in the Alternatives Screening Report. 1 Information regarding the screening analysis conducted for these alternatives is included in this 2 3 section. 4 5 3.1.1 Alternatives Screening Methodology and Criteria 6 7 Each potential alternative to the proposed project that was identified by the California Public 8 Utilities Commission (CPUC) for the CEOA review as described in Section 1 were screened 9 using a three-step process: 10 11 **Step 1:** Clarify the description of the alternative to allow for comparative evaluation. 12 **Step 2:** Evaluate the alternative by comparing it with the proposed project and with respect 13 to the CEQA criteria for alternatives. 14 **Step 3:** Determine the suitability of each alternative for full analysis in the EIR based on the 15 results of Step 2. If the alternative is unsuitable, eliminate it from further consideration. 16 17 18 To comply with CEQA requirements for the evaluation of alternatives, each alternative identified 19 was evaluated according to three criteria (CEQA Guidelines Section 15126.6): 20 21 I. Would the alternative accomplish most of the basic project objectives? 22 II. Would the alternative be feasible (from an economic, legal, and technological 23 perspective)? 24 III. Would the alternative avoid or substantially lessen any significant effects of the proposed 25 project (including consideration of whether the alternative itself could create significant 26 effects potentially greater than those of the proposed project)? 27 The Alternatives Screening Report (Appendix B) provides more information about the 28 alternatives screening methodology and criteria. 29 30 3.1.2 Alternatives to Transmission Facilities 31 32 California Public Utilities Code Section 1002.3 requires that the CPUC consider cost-effective 33 alternatives to transmission facilities when evaluating project applications for a Certificate of 34 Public Convenience and Necessity. Alternatives A, B1, B2, and B3 (see section 3.2, below) 35 would be cost-effective alternatives that meet Section 1002.3 requirements because they include 36 methods for meeting project objectives that would not require new transmission facilities that 37 would operate at voltages equal to or greater than 200 kilovolts (kV) and would incorporate 38 energy conservation and efficiency improvement measures. Alternative A would not include the 39 construction of new or upgraded transmission lines. Alternatives B1, B2, and B3 would 40 reconductor existing 138-kV transmission lines or, to the extent feasible, make use of 41 transmission lines that are currently not in use. 42 43 Alternatives A, B1, B2, and B3 include cost-effective demand-side alternatives, e.g., targeted 44 energy efficiency, demand reduction measures (demand response and load management), and

- local generation, that may be implemented within the applicant's 10-year transmission planning 1
- 2 horizon. Local generation refers to small-scale, customer-level distributed generation resources
- 3 within an electrical service area, e.g., rooftop solar photovoltaic generation on single-family
- 4 homes. Alternatives to transmission facilities may include other types of distributed generation
- 5 installations (e.g., rooftop solar photovoltaic generation on commercial facilities, combined heat
- 6 and power units, and biomass facilities, as well as small wind and other small-scale, often
- 7 community-based facilities; CEC 2009) and larger-scale renewable and conventional generation
- 8 facilities (e.g., solar fields and natural gas power plants). 9
- 10
 - 3.1.3 Alternatives Considered in the Screening Report
- 11

12 Some of the alternatives considered during the screening process were presented in the

- 13 Proponent's Environmental Assessment (PEA), and others were suggested by the public during
- 14 scoping or identified by the CPUC's Energy Division as a result of the agency's independent
- review. Each of the alternatives considered in the Alternatives Screening Report is identified in 15
- Table 3-1. The alternatives retained for further consideration in this EIR are described in Section 16
- 3.2. The alternatives eliminated from further consideration are described in the Alternatives 17
- 18 Screening Report (Appendix B).
- 19

	Identified	Meets Basic	Keport	Would Likely Avoids or Substantially Lessens a Potentially Significant	Retained for Consideration
Alternative	by	Objectives	Feasible	Effect	in EIR
A. No Project	CPUC	Yes	Yes	Yes	Yes
B1. Reconductor Laguna Niguel–Talega 138-kV Line	CPUC	Yes	Yes	Yes	Yes
B2. Use of Existing Transmission Lines	CPUC	Yes	Yes	Yes	Yes
B3. Phased Construction of Alternatives B1 and B2	CPUC	Yes	Yes	Yes	Yes
B4. Rebuild South Orange County 138- kV System	SDG&E	Yes	Yes	Yes	Yes
C1. SCE 230-kV Loop In to Capistrano Substation	SDG&Eª	Yes	Yes	Yes	Yes
C2. SCE 230-kV Loop In to Capistrano Substation Alternative Route	CPUC	Yes	Yes	Yes	Yes
D. SCE 230-kV Loop In to Reduced- Footprint Substation at Landfill	SDG&Eª	Yes	Yes	Yes	Yes
E. New 230-kV Line Operated at 138 kV	CPUC	Yes	Yes	Yes	Yes
F. 230-kV Rancho Mission Viejo Substation	CPUC	Yes	Yes	Yes	Yes
G. New 138-kV San Luis Rey–San Mateo Line and San Luis Rey Substation Expansion	SDG&E	Yes	Yes	Yes	Yes

				Would Likely	
				Avoids or	
				Substantially	
				Lessens a	
		Meets		Potentially	Retained for
	Identified	Basic		Significant	Consideration
Alternative	by	Objectives	Feasible	Effect	in EIR

Table 3-1 Alternatives Considered in the Screening Report

Note:

^a Alternative presented as described by SDG&E but with CPUC modifications or additional design details.

Key:

CPUC = California Public Utilities Commission

EIR = Environmental Impact Report

kV = kilovolt

SCE = Southern California Edison

SDG&E = San Diego Gas and Electric Company

1 2

3.2 Alternatives Evaluated in this EIR

3

4 This section describes the alternatives retained for consideration in this EIR. Each of the 5 following alternatives is potentially feasible and would meet most of the basic objectives of the 6 proposed project as discussed in the Alternatives Screening Report (Appendix B) and below in 7 Section 3.2.1.2.

8

9 3.2.1 Alternative A – No Project

10

11 The No Project Alternative is the circumstance under which the proposed project does not

12 proceed (CEQA Guidelines Section 15126.6(e)(3)(B)). The purpose of describing and analyzing

13 a No Project Alternative is to allow decision-makers to compare the effects of approving versus

14 not approving the proposed project. The components of the No Project Alternative described in

this report were defined by the CPUC with input from San Diego Gas & Electric Company 15

(SDG&E, or the applicant). Regardless of whether the proposed project is constructed, it is 16

17 reasonably foreseeable that the following would occur prior to 2018 (SDG&E 2012; CAISO

- 18 2014):
- 19 20
- Talega Substation's STATCOM¹ would be replaced; and •
- New dynamic synchronous condensers² would be installed as approved by the California 21 22 Independent System Operator (CAISO) to provide additional reactive power support in 23 the proposed project area (approximately 700 megavolt amperes reactive (MVARs) at 24 230 kilovolts [kV]) between 2015 and 2017.

A STATCOM is a regulating device used to optimize the power transfer capability of alternating current transmission systems. Reactive power (volt-amperes reactive or VARs) is regulated in alternating current transmission systems to maintain required voltage levels. STATCOMs are one option for regulating reactive power. Talega Substation has a STATCOM rated for 100 megavolt-amperes reactive power, which may be referred to as 100 mega VARs or 100 MVARs. It is connected to SDG&E's 138-kV system.

² A dynamic synchronous condenser, similar to a STATCOM, is type of device used to optimize the power transfer capability of alternative current transmission systems. Dynamic synchronous condensers are another option for regulating reactive power.

2 3	For further information about the STATCOM replacement and dynamic synchronous condenser installations, refer to the Alternatives Screening Report (Appendix B).				
4					
5 6 7	In addition, if equipment at Capistrano Substation ³ or existing distribution or 138-kV lines within the South Orange County Service Area fail or would be inadequate to serve customer				
/	aeman	a, it is anticipated that the applicant would replace the equipment of facilities pursuant to			
8 9	(statut	ory and categorical exemptions). For example, the applicant is expected to replace 138-kV			
10	transfo	ormers and update protection equipment at Capistrano Substation and Trabuco Substation			
11	in 201	5 (SDG&E 2012). The applicant is able to replace facilities without obtaining a Certificate			
12	of Pub	lic Convenience and Necessity or Permit to Construct from the CPUC as specified in			
13	CPUC	General Order 131-D for:			
14					
15 16 17	a.	Power line ⁴ facilities or substations with an in-service date occurring before January 1, 1996, which have been reported to the CPUC in accordance with the CPUC's decision adopting General Order 131-D.			
18 19	b.	The replacement of existing power line facilities or supporting structures with equivalent facilities or structures.			
20 21	c.	The minor relocation of existing power line facilities up to 2,000 feet in length, or the intersetting of additional support structures between existing support structures.			
22	d.	The conversion of existing overhead lines to underground.			
23 24	e.	The placing of new or additional conductors, insulators, or their accessories on supporting structures already built.			
25 26 27 28	f.	Power lines or substations to be relocated or constructed that have undergone environmental review pursuant to CEQA as part of a larger project and for which the final CEQA document (EIR or Negative Declaration) finds no significant unavoidable environmental impacts caused by the proposed line or substation.			
29 30 31 32 33	g.	Power line facilities or substations to be located in an existing franchise, road-widening setback easement, or public utility easement; or in a utility corridor designated, precisely mapped and officially adopted pursuant to law by federal, state, or local agencies for which a final Negative Declaration or EIR finds no significant unavoidable environmental impacts.			
34 35 36 37	h.	The construction of projects that are statutorily or categorically exempt pursuant to § 15260 et seq. of the Guidelines adopted to implement the CEQA, 14 Code of California Regulations § 15000 et seq. (CEQA Guidelines). ⁵			

³ Capistrano Substation was constructed in the 1960s.

⁴ As defined by CPUC General Order 131-D, a power line is a line designed to operate between 50 and 200 kV. A distribution line is a line designed to operate under 50 kV.

⁵ These exemptions do not apply when a significant effect on the environment would occur as defined in CEQA Guidelines Section 15300.2 or CPUC General Order 131-D.

- 1 Additionally, CPUC General Order 131-D states that the construction of electric distribution line
- 2 facilities, or substations with a high side voltage under 50 kV, or substation modification projects
- 3 that increase the voltage of an existing substation to the voltage for which the substation has been
- 4 previously rated within the existing substation boundaries, does not require the issuance of a
- 5 Certificate of Public Convenience and Necessity or permit from the CPUC, nor discretionary
- 6 permits or approvals by local governments. However, to ensure safety and compliance with local
- building standards, the utility must first communicate with, and obtain the input of, local
 authorities regarding land use matters and obtain any non-discretionary local permits required for
- authorities regarding land use matters and obtain any non-discretionary local permits required for
 the construction and operation of these projects. Hence, it is reasonably foreseeable that
- substation and power line work allowed by General Order 131-D without CPUC approval could
- 11 occur under the No Project Alternative.
- 12

3.2.1.2 No Project Alternative and Objectives of the Proposed Project

13 14

15 The Alternatives Screening Report states that the No Project Alternative would at least partially

- 16 meet Objectives 1 and 2 (Appendix B). Given the applicant's ability to replace failed or
- 17 inadequate equipment at Capistrano Substation to meet conditions that may occur under the No
- 18 Project Alternative pursuant to General Order 131-D and CEQA (see above), it is clear that the
- 19 No Project Alternative would meet Objective 2 as defined by the CPUC (Section 1.2.1,
- 20 "Objectives of the Proposed Project"). General Order 131-D would also allow the applicant to
- 21 reconductor or otherwise modify existing 138-kV power lines without obtaining a Certificate of
- 22 Public Convenience and Necessity or Permit to Construct from the CPUC; therefore, it is
- reasonable to assume that as part of the No Project Alternative, the applicant would modify its
- existing 138-kV system to the extent allowed by General Order 131-D to avoid power line
- 25 failures and meet customer demand. The following section describes why the No Project
- 26 Alterative could fully meet Objective 1.
- 27

Objective 1: Reduce the Risk of Instances that Could Result in the Loss of Power to Customers through the 10-year Planning Horizon

- 30 The applicant's power flow data indicate that if no work is conducted on the South Orange
- 31 County 138-kV System by 2020, a section of the Talega–Laguna Niguel–San Mateo 138-kV
- 32 Line (TL13835) could overload should either of the following Category C, N-1-1 scenarios (see
- 33 Chapter 1, Section 1.1.2, "Transmission and Electrical Demand Planning") occur:
- 34 35

36

- 1. Failure of the Pico–Capistrano 138-kV Line (TL13816) followed by failure of the Pico– Trabuco 138-kV Line (TL13833); or
- Failure of the Talega–Pico Line (TL13836) followed by failure of a section of the
 Talega–Pico–San Mateo Line (TL13846).
- 39
- 40 Other Category C (N-1-1) scenarios are also possible by 2020, but these are the two worst-case
- 41 (highest potential overload) scenarios described by the applicant. In accordance with CPUC
- 42 General Order 131-D, it is anticipated that the applicant would implement system adjustments
- 43 (e.g., reconductor 138-kV line segments) prior to this date to ensure that some or all of these
- 44 overload scenarios do not occur. Examples of system adjustments that could be implemented
- 45 may be similar to the installations discussed under Alternatives B1 through B4. It is also possible

that an N-2 (Category B) event could occur by 2020, but it is not anticipated that the applicant 1 2 would make system adjustments to address these events, as load shedding would be allowable. 3 4 In addition, under the No Project Alternative, it is assumed that energy efficiency improvements 5 and distributed generation facilities (including rooftop solar generation) will continue to be 6 implemented throughout the 10-year planning horizon that will incrementally reduce load on SDG&E's 138-kV South Orange County System. The installation of new rooftop solar 7 8 generation facilities is expected to continue during the 10-year planning horizon for the proposed 9 project. Nationwide, the cost of new solar installations is anticipated to continue to decrease, and 10 the amount of solar power generation is expected to increase through 2024. Solar energy is the fastest-growing source of renewable generation. Solar generation is projected to increase by 7.5 11 12 percent per year through 2040 nationwide almost exclusively as a result of increased 13 photovoltaic capacity in both the utility-side and customer-side sectors (USEIA 2014). 14 15 The applicant's data indicate that by the end of 2014, more than 12.6 megawatts (MW) of 16 demand within the south Orange County service area will be provided by rooftop solar 17 generation, which is approximately 3 percent of the approximately 450 MW South Orange 18 County 138-kV System (see Appendix B). Should the installation of new rooftop solar 19 generation continue to increase within southern Orange County, the additional generation would 20 substantially offset the increase in electrical demand anticipated by the applicant, which is estimated at 5.7 MW per year (1.1 percent per year) through 2024; Table 1-1. In 2013, 3.1 MW 21 22 of new solar generation was installed within the applicant's South Orange County service area (see Appendix B).⁶ Additionally, peak demand typically occurs during daylight hours in the 23 24 summer, when rooftop solar facilities are capable of generating power. For further discussion of 25 demand-side management, energy conservation programs, and distributed and renewable 26 generation, refer to the Alternatives Screening Report (Appendix B). 27 28 Given the anticipated rooftop solar facility installations and the applicant's ability to replace both distribution line facilities and 138-kV line facilities to meet conditions that may occur under the 29 30 No Project Alternative, this alternative would fully meet Objective 1 as defined by the CPUC

- 31 (Section 1.2.1, "Objectives of the Proposed Project"). Therefore, Alternative A would meet two
- 32 of the three basic objectives of the proposed project.
- 33

Additionally, the No Project Alternative described in this report is considered an alternative that meets the CPUC's requirements for consideration of cost-effective alternatives to transmission

36 facilities as described in Section 3.1.2, "Alternatives to Transmission Facilities."

37

38 **3.2.2** Alternative B1 – Reconductor Laguna Niguel–Talega 138-kV Line

39

40 Under Alternative B1, which was identified by the CPUC, a segment of the Laguna Niguel–
41 Talega 138-kV Line (TL13835) would be reconductored with conductor of a comparable size but

⁶ The rooftop solar generation capacity data provided by the applicant refer to the nameplate capacity of installed rooftop solar equipment. The applicant is not able to report the specific amount of power provided by Net Energy Metering program participants with rooftop solar installations. Net Energy Metering program generation, however, is accounted for in the South Orange County 138-kV System's recorded (historical) peak loads (Figure 1-1) and is reflected in the applicant's system-wide load forecasts, which are based in part, on historical peak loads.

1 higher capacity, such as aluminum conductor steel supported (ACSS) or similar. ACSS has a

- 2 higher operating temperature and greater resistance to overload than other types of comparably
- 3 sized conductor, such as aluminum conductor steel reinforced (ACSR) (Southwire 2014). The
- 4 use of ACSS or similar high-capacity conductor would allow for high power transfer (e.g., 273
- 5 megavolt amperes [MVA]) in comparison to the existing 138-kV line's 136 MVA rating.⁷
- 6 7

Under this alternative, a 138-kV segment (approximately 7.8 miles long) from Capistrano Substation to
Talega Substation would be reconductored (Figure 3-1). Reconductoring would occur along the same
transmission line route (Segments 1b to 4) as the proposed project (Figures 2-1 and 3-1). In addition, an
approximately 2.5-mile-long segment of transmission line (TL13835) from Laguna Niguel Substation

- 11 would be tied into Capistrano Substation (but would not require reconductoring) at a location adjacent to 12 the substation to create a new Laguna Niguel–Capistrano 138-kV Line under this alternative. Some
- 13 structures may need to be replaced during reconductoring. Equipment at Capistrano Substation found to
- 14 be inadequate would also be replaced.
- 15
- 16 This alternative includes the assumption that the CAISO-approved installation of reactive power
- 17 support equipment and anticipated increase in rooftop solar installations within South Orange
- 18 County as described under Alternative A would take place. Alternative B1 would meet the
- 19 CPUC's requirements for consideration of cost-effective alternatives to transmission facilities as
- 20 described in Section 3.1.2, "Alternatives to Transmission Facilities."
- 21

The applicant proposed a reconductoring project similar to Alternative B1 to the CAISO in 2010 and 23 2011 to address a forecast overload of TL13835 due to a potential Category B (N-1) event caused by the 24 loss of the Talega–Pico 138-kV Line (TL13836). In 2011, the CAISO recommended the reconductoring 25 project be evaluated in the future because the overload identified would be only by 1 percent. The CAISO 26 also noted that TL13835 might be upgraded as part of the version of the proposed project presented to the 27 CAISO at that time (CAISO 2010, 2011).

28 29

30

3.2.3 Alternative B2 – Use of Existing Transmission Lines (Additional Talega– Capistrano 138-kV Line)

31 32 Under this alternative, which was identified by the CPUC, an existing 138-kV transmission line 33 currently operated as a distribution line (12-kV circuit 315) and an unused transmission line 34 would be connected and energized at 138 kV. The existing 138-kV line extends approximately 3 35 miles from Capistrano Substation southeast to the San Juan Hills High School area. The other 36 transmission line, which is assumed to be an unused 66-kV or 69-kV line, extends from the San 37 Juan Hills High School approximately 4.8 miles south to Talega Substation. Sections of the 38 transmission line were identified as unused by the applicant during the CPUC's October 16, 39 2012 site visit. At that time, the applicant indicated that it planned to remove the line at a future 40 date but not as part of the proposed project.

41

⁷ Transmission line TL13835's existing ACSR conductor has a diameter of 336 kcmil. A circular mil (cmil) is a standard unit of measure used for electrical systems that refers to the area of the cross section of conductor. One cmil is equal to the area of a circle with a 1-mil diameter, and 1 kcmil is equal to 1,000 cmils. Large conductor sizes rated for use on electrical transmission lines are generally 0.6 inches to 2 inches in diameter. ACSR 336-kcmil conductor is approximately 0.7 inches in diameter (Grigsby 2001).



Figure 3-1

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138-kV Reconductoring and Use of Existing Transmission Lines Alternatives B1, B2 and B3^{*}

South Orange County Reliability Enhancement Project

- 1 For this alternative, the existing 66-kV/69-kV line's conductor would be replaced with higher-
- 2 capacity but comparably sized conductor (e.g., ACSS). Replacement of the existing wood
- 3 structures may also be required. Reconductoring, if required, would occur along the same
- 4 transmission line route (Segments 1b to 4) as the proposed project (Figures 2-1 and 3-1). The
- 5 new Talega–Capistrano 138-kV Line would have a capacity of approximately 270 MVA
- 6 depending on whether reconductoring is required and the type of conductor installed. In addition,
- 7 equipment at Capistrano Substation found to be inadequate as described in Section 1.4.1 would
- 8 be replaced.
- 9

10 Under this alternative, the operation of 12-kV distribution circuit 315 at 138 kV would

11 necessitate the additional installation of a new distribution line route, which would be identical to

- 12 the distribution component of the proposed project. This alternative also assumes that the
- 13 CAISO-approved installation of reactive power support equipment and anticipated increase in
- 14 rooftop solar installations within South Orange County as described under Alternative A would
- 15 take place. Alternative B2 would meet the CPUC's requirements for consideration of cost-
- 16 effective alternatives to transmission facilities as described in Section 3.1.2.
- 17

3.2.4 Alternative B3 – Alternative B3 – Phased Construction of Alternatives B1 and B2

20

21 Under this alternative, which was identified by the CPUC, the construction of either Alternative B1 or B2,

or the construction of both alternatives, would occur. The construction of both alternatives would only
 occur if necessary to address potential overload events that may be forecast by future transmission
 planning studies.

25

26 If, under this alternative, the components described under Alternative B2 were to be constructed

27 first, the existing 138-kV line (TL13835) could continue operation while these initial

28 components were constructed. There would be minimal, if any, impact on the South Orange

29 County 138-kV system during construction, which would likely result in fewer service

30 disruptions than would otherwise occur. If the components described under Alternative B1 are

- 31 constructed first (reconductoring of TL13835), the existing 138-kV transmission line (currently
- 32 operated at 12 kV) and unused 66 -kV/69 -kV transmission line could potentially be operated at
- 33 138 kV during reconductoring of TL13835 to ensure that continuous electrical service is

34 maintained, which could result in fewer disruptions in service.

35

36 It is unclear at this time whether the 2.5-mile-long segment of TL13835 from Laguna Niguel

- 37 Substation would be required to be tied into Capistrano Substation as described under
- 38 Alternative B1 if this alternative is constructed. This alternative includes the assumption that the
- 39 CAISO-approved installation of reactive power support equipment and anticipated increase in
- 40 rooftop solar installations within South Orange County as described under Alternative A would
- 41 take place. Alternative B3 would meet the CPUC's requirements for consideration of cost-
- 42 effective alternatives to transmission facilities as described in Section 3.1.2.
- 43

44 3.2.5 Alternative B4 – Rebuild South Orange County 138-kV System 45

This alternative was identified by the applicant in the PEA and further refined by the applicant in
 response to the CPUC's request for further description of the improvements that SDG&E

- 1 anticipates would be required for the South Orange County 138-kV System should the proposed
- 2 project not be approved. Under this alternative, all of the existing 138-kV lines that extend
- 3 between the applicant's Trabuco, Capistrano, Laguna Niguel, and Talega substations would be
- 4 reconductored (approximately 34 miles; Figure 3-2) except and the Capistrano–Laguna Niguel
- 5 138-kV Line (TL13837) and a short section

6



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Figure 3-2 Rebuild South Orange County 138-kV System Alternative B4

South Orange County Reliability Enhancement Project

- 1 (TL13846C) that extends through the Talega Corridor area to connect the Talega–Pico–San
- 2 Mateo 138-kV Line (TL13846) to Talega Substation. This would include reconductoring, the
- 3 installation of new structures, the installation of new underground conduit along five 138-kV
- 4 lines (TL13816, TL13833, TL13835, TL13836, and TL13846), and the 7.8 miles of
- 5 reconductoring described under Alternative B1.
- 6

7 In addition, new 138-kV facilities at Capistrano Substation would be constructed as described for the

proposed project and would include the installation of three 138/12-kV transformers and space for a
fourth 138/12-kV transformer at the lower yard of the Capistrano Substation site (Figure 2-3). This
substation expansion would likely result in demolition of the former utility structure that fronts the

11 substation property on Camino Capistrano; however, no 230-kV substation would be constructed at the

12 site, and the profile of the rebuilt substation would be lower in height than for the proposed project. Two

13 230/138-kV transformers that the applicant has indicated are outdated would be replaced at Talega
 14 Substation as proposed. The applicant has also indicated that this alternative would include the reactive

15 power support elements described under the No Project Alternative. It is assumed that the other No

16 Project Alternative elements would be included under Alternative B4 as well.

17

18 **3.2.6** Alternative C1 – SCE 230-kV Loop-in to Capistrano Substation

19

A version of this alternative was initially identified by the applicant in the PEA. As compared to the PEA alternative, Alternative C1 includes sufficient design details to ensure that analysis

21 the FEA alternative, Alternative C1 includes sufficient design details to ensure that analysis 22 pursuant to CEOA may be conducted. Under this alternative, San Juan Capistrano Substation

would be constructed as described for the proposed project. A new double-circuit 230-kV

- transmission line (3 to 4 miles long) would be constructed. The line would extend from the
- 25 proposed San Juan Capistrano Substation to a location in proximity to Prima Deschecha Landfill
- 26 (PDL) and the San Juan Hills High School area (Figure 3-3). At this location, the new 230-kV
- 27 line would loop in (connect) to Southern California Edison's (SCE's) existing Serrano–SONGS
- 28 230-kV line. The new 230-kV line and loop-in connection would be constructed within the same

right-of-way (ROW) as the double-circuit 230-kV line that would be used for the proposed

30 project. A small amount of new ROW may be required, depending on where the loop-in

31 connection is constructed. Distribution circuit 315 (12 kV) would be relocated as described for

- 32 the proposed project.
- 33

34 3.2.7 Alternative C2 – SCE 230-kV Loop-in to Capistrano Substation Routing Alternative

36

37 A version of this alternative was initially identified by the applicant in the PEA. Like the PEA

alternative, Alternative C2 includes design details sufficient to ensure that analysis pursuant to
 CEOA may be conducted, and includes details based on comments received during the EIR

CEQA may be conducted, and includes details based on comments received during the EIR
 scoping meeting held in the city of San Juan Capistrano. Many of the same components

41 described under Alternative C1 would be constructed, but instead of connecting to SCE's

- 42 Serrano–SONGS 230-kV line at a location in proximity to PDL and south of the San Juan Hills
- 43 High School area, the connection would be made north of the San Juan Hills High School area

44 (Figure 3-3). The new double-circuit 230-kV line would be constructed along the same ROW

- 45 southeast from Capistrano Substation to San Juan Creek Road. At San Juan Creek Road, new
- 46 230-kV line would be constructed in new underground conduit and within new ROW along San
- 47 Juan Creek Road for approximately 1 mile northeast to a location near La Pata Avenue where it

would connect to SCE's existing 230-kV line. It is assumed that distribution circuit 315 (12-kV)
 would be relocated as described for the proposed project.

3.2.8 Alternative D – SCE 230-kV Loop In to Reduced-Footprint Substation at Landfill 6

A version of this alternative was initially identified by the applicant in the PEA. Like the alternative presented in the PEA, Alternative D includes design details sufficient to ensure that analysis pursuant to CEQA may be conducted. Under this alternative, a new 230/138/12-kV substation would be constructed at PDL in proximity to the transmission corridor that crosses the landfill (Figure 3-3). Both SDG&E and SCE transmission lines are located within this corridor. Power would be provided to the new substation from SCE's Serrano–SONGS 230-kV line. A new double-circuit 230-kV line segment (less than 0.25 miles long) would be constructed,

14 possibly within new ROW, which would loop the new substation into SCE's 230-kV line.

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16 Under this alternative, a new, single-circuit 138-kV line segment (approximately 0.75 miles

17 long) would be installed that would use the existing 66-kV/69-kV transmission line route

18 described for Alternative B2. This line segment would extend from the new substation west to

19 the applicant's transmission ROW and then extend north along the 66 -kV/69 -kV line route to the

20 San Juan Hills High School area, where it would connect to the applicant's existing underground

- 21 138-kV line.
- 22

23 Distribution circuit 315 (12 kV) would be relocated as described for the proposed project, which

24 would allow the existing 138-kV line that extends from the San Juan Hills High School area to

25 Capistrano Substation to be energized at 138 kV instead of 12 kV. The new 138-kV segment

26 would be used to create a continuous new 138-kV line between the new substation and

- 27 Capistrano Substation.
- 28

One 230/138-kV transformer would be installed at the new substation with space for a spare if the applicant provides data indicating a spare could be needed. One 138/12-kV transformer would also be installed. Space for additional 138/12-kV transformers and/or additional distribution-level transformers would also be included in the substation design if the applicant provides data indicating that the space could be needed. The substation would be gas insulated and require 3 to 10 acres of land. In addition, equipment at Capistrano Substation found to be inadequate would be replaced.

35

36 3.2.9 Alternative E – New 230-kV Talega–Capistrano Line Operated at 138 kV

37

Under this alternative, which was identified by the CPUC, the proposed double-circuit 230-kV line would be constructed between Talega Substation and the San Juan Hills High School and Rancho San Juan residential development area (Figure 3-4). The two new circuits would be operated at 138 kV rather than 230 kV. The new double-circuit transmission line would connect to two existing transmission line segments between Capistrano Substation and the San Juan Hills High School and Rancho San Juan residential development area.

44

45 One of the existing 138-kV lines is the Laguna Niguel–San Mateo–Talega 138-kV Line

46 (TL13835), and the second 138-kV line is currently operated at 12 kV (distribution circuit 315).

- 47 Distribution circuit 315 would be relocated as proposed, and the existing 138-kV circuit would
- 48 be energized at 138 kV. If reconductoring is required between Capistrano Substation and the San

- 1 Juan Hills High School and Rancho San Juan residential development area to upgrade sections of
- 2 circuit 315, higher-capacity conductor (e.g., ACSS) similar in size to the existing conductor
- 3 would be installed. The new Talega–Capistrano 138-kV Lines that would be created under this
- 4 alternative could have a capacity of approximately 270 MVA, depending on whether
- 5 reconductoring is required and the type of conductor installed.
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Figure 3-3 **SDG&E 230-kV Interconnect with SCE** Alternatives C1, C2, and D

South Orange County Reliability Enhancement Project

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Figure 3-4 New 138-kV Transmission Line and Rancho Mission Viejo Alternatives (Alternatives E, F, and G) South Orange County Reliability Enhancement Project This page intentionally left blank

- 1 If it is not feasible to make use of circuit 315 under this alternative, only one 230-kV circuit
- 2 (operated at 138-kV) would be installed between Talega Substation and the San Juan Hills High
- 3 School and Rancho San Juan residential development area on the new double-circuit poles.
- 4 Circuit 315 would not be relocated and the Laguna Niguel-San Mateo-Talega 138-kV Line
- 5 (TL13835) section between Capistrano Substation and the San Juan Hills High School and
- 6 Rancho San Juan residential development area would be reconductored with higher-capacity
- 7 conductor (see also Alternative B1).
- 8

9 Equipment at Capistrano Substation would be replaced to the extent that the applicant can provide data

10 indicating such replacement would be required to accommodate this alternative or would otherwise be 11 required because the equipment is inadequate. If future load forecast and power flow studies indicate that 12 the existing 138/12-kV Capistrano Substation must be expanded to a larger 230/138/12-kV substation as 13 described for the proposed project, 4.8 miles of the proposed double-circuit 230-kV line (7.8 miles long) 14 would already be in place to support this expansion.

15

16 3.2.10 Alternative F – 230-kV Rancho Mission Viejo Substation

17

18 This alternative was identified by the CPUC based on comments received during the EIR scoping meeting

19 held in the city of San Juan Capistrano. In addition, details regarding the Eastern Talega 230-kV

20 Transmission Line Route alternative, as described in the applicant's PEA, are incorporated into this

21 alternative. Under this alternative, the applicant's 138/12-kV Rancho Mission Viejo Substation (Figure 3-

22 4) would be expanded to a 230/138/12-kV substation with specifications comparable to those of the 23 proposed project's new San Juan Capistrano Substation. Capistrano Substation would not be expanded,

24 but equipment at Capistrano Substation found to be inadequate would be replaced.

25

26 To bring a new 230-kV source into the South Orange County service area, a new, double-circuit

27 230-kV Talega-Rancho Mission Viejo line would be constructed along the Eastern Talega 230-

kV Transmission Line Route described in the PEA. This route follows the existing Talega-28

29 Rancho Mission Viejo 138-kV Line (TL13831). Although two new 230-kV circuits would be

30 installed, one of the circuits would be energized at 138 kV and operated as TL13831. The

31 existing TL13831 structures and conductor would be removed, and the existing ROW (100 feet

32 wide) would be increased by approximately 20 feet.

34 3.2.10.1 Work Planned at Rancho Mission Viejo Substation

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36 The applicant plans to replace 81 138-kV wood poles with steel poles between Talega Substation

37 and Rancho Mission Viejo Substation along the Eastern Talega Transmission Line Route

38 described under Alternative F (138-kV line TL13831). The replacement would be completed in

39 2016. The applicant anticipates that the conductor with a greater electrical carrying capacity

40 would be installed on the new steel structures if approved by the CPUC (SCE 2012). The

applicant also plans to construct three new 12-kV distribution lines from Rancho Mission Viejo 41

42 Substation and replace approximately ten 138-kV wood poles with steel poles between Rancho

43 Mission Viejo and Margarita substations (TL13838).

3.2.11 Alternative G – New 138-kV San Luis Rey–San Mateo Line and San Luis Rey Substation Expansion

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This alternative was identified by the applicant in the PEA. Under this alternative, a new,

4 5 approximately 18-mile-long 138-kV transmission line would be constructed within existing and

- 6 new ROW from San Luis Rev Substation to San Mateo Substation (Figure 3-4). Two new
- 7 230/138-kV transformers would be installed at San Luis Rey Substation, the substation would be
- 8 expanded, and three 230-kV line segments would be modified. Capistrano Substation's 138-kV
- 9 and 12-kV facilities would be rebuilt as described for the proposed project, and a number of 138-
- 10 kV transmission lines would be reconductored. In addition, a segment of the Laguna Niguel-
- Talega 138-kV Line (TL13835) from Capistrano Substation to Talega Substation would be 11
- 12 modified to support a second 138-kV line, which would require a similar amount of construction
- 13 as the double-circuit 230-kV transmission line that would be constructed as part of the proposed project.
- 14 15

16 3.2.12 Alternative J – SCE 230-kV Loop In to Trabuco Substation

1/	
18	This alternative was identified by the public during the Draft EIR public comment period. Under
19	this alternative, the applicant would expand its existing 138/12-kV Trabuco Substation in Laguna
20	Niguel into a 230/138/12-kV substation. The applicant would acquire approximately 2 acres of
21	land, currently owned by AT&T, adjacent to the north side of the existing Trabuco Substation for
22	the construction and operation of the 230-kV switchyard. The applicant would construct a 230-
23	kV switchyard, including two 230-kV/138-kV transformers (one required and spare) with a
24	capacity 392 MVA. The 230-kV/138-kV transformer would be housed in a 40- to 50-foot-high
25	gas insulated substation building.
26	
27	A new underground, double-circuit 230-kV transmission line segment (approximately 0.5 miles
28	long) would be constructed within new ROW that would loop the new substation into SCE's
29	Santiago-SONGS 230-kV line. The new 230-kV transmission loop-in line would either exit the
30	Trabuco Substation to the north in a new underground conduit along Camino Capistrano to
31	connect to the Santiago-SONGS 230-kV line or exit the Trabuco Substation to the east overhead
32	across Interstate 5, then into a new underground conduit along La Alameda, Los Altos, and Plaza
33	and Bellogente roads to connect to the Santiago-SONGS 230-kV line (see Figure 3-5). The
34	Santiago-SONGS 230-kV line would then become two new transmission lines: the Trabuco-
35	SONGS 230-kV transmission line and the Trabuco-Santiago 230-kV transmission line.
36	
37	Major modifications to the existing Trabuco Substation would not be required as part of this
38	alternative because the existing 138/12-kV equipment has not been identified as aging equipment
39	by the applicant. It is anticipated that the Trabuco 130/12-kV system would remain operational
40	while the new 230/138kV equipment is installed. Any potential disruptions of service would be
41	limited to the time required to establish a physical connection between the new 230/138-kV
42	equipment and the existing 138-kV equipment.
43	
44	Capistrano Substation would not be expanded as part of this alternative, but equipment at Capistrano
45	Substation found to be inadequate would be replaced. The distribution circuit 315 (12-kV) would not be
46	relocated. This alternative would not require any work at the existing Capistrano or Talega Substations.
4/	<u>No 12-KV distribution lines or 138-KV transmission lines would require relocation or reconductoring.</u>

1

2 Consideration of CEQA Requirements for the Evaluation of Alternatives

3 **Project Objectives**

- 4 This alternative would meet each of the project objectives as defined in Section 1.3.1. The
- 5 <u>CPUC's review of the applicant's power flow data indicates that Alternative J would ensure that</u>
- 6 each of the potential Category C (N-1-1) contingencies identified by the applicant and CAISO
- 7 (Section 1.2.1) would be avoided through the 10-year planning horizon (Objective 1). Equipment
- 8 at Capistrano Substation found to be inadequate would be replaced (Objective 2), and power
- 9 flow within the applicant's South Orange County 138-kV system would be redistributed
- 10 <u>(Objective 3).</u> 11

12 *Feasibility*

13 This alternative is potentially feasible from a technological, legal, and economic perspective.

14

15 *Environmental Advantages*

- 16 <u>Under this alternative, the applicant's 138/12-kV Trabuco Substation would be expanded to a</u>
- 17 <u>230/138/12-kV substation with specifications comparable to those of the proposed project's new</u>
- 18 <u>San Juan Capistrano Substation. The substation expansion would use an existing 2-acre AT&T</u>
- 19 parking lot located adjacent to the north side of the existing Trabuco Substation to house the new
- 20 230/138kV equipment. Capistrano Substation would not be expanded, but equipment at
- 21 <u>Capistrano Substation found to be inadequate would be replaced. The distribution circuit 315</u>
- 22 (12-kV) would not be relocated. A new 230-kV line would not be installed, nor would the San
- 23 Juan Capistrano substation be constructed. The SDG&E South Orange County 138-kV System
- 24 would not require any reconductoring under this alternative.
- 25
- 26 Impacts to aesthetics and cultural resources at the Capistrano Substation site would not occur
- 27 under this alternative. Potentially significant impacts on biological resources, air quality, traffic
- 28 and transportation, cultural resources, and land use would be avoided or reduced. Impacts on all
- 29 other resource areas may also be reduced, in large part because the size of the project area and
- 30 total area of construction disturbance would be reduced.
- 31

32 *Environmental Disadvantages*

33 <u>No environmental disadvantages are associated with this alternative in comparison to the</u>

- 34 **proposed project are anticipated.**
- 3536 Conclusion
- 37 **RETAINED**. Alternative J is potentially feasible, would meet all of the basic project objectives,
- 38 and would reduce each of the potentially significant effects of the proposed project. Therefore,
- 39 this alternative is retained for further consideration in the EIR. In addition, this alternative would
- 40 add a second source of 230-kV power into the South Orange County 138-kV System, allowing
- 41 for increased flexibility to dispatch power.

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Source: Trabuco Substation Conceptual Site Plan, Z-Global, July 17, 2015



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4.4 Biological Resources

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2 3 This section describes the environmental and regulatory settings and discusses impacts associated with 4 construction and operation of the South Orange County Reliability Enhancement Project (proposed 5 project) with respect to biological resources. During scoping, concerns about temporary and permanent 6 impacts on sensitive vegetation communities and special status species were raised by the United States 7 Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW), as well as 8 other federal agencies (Marine Corps Base [MCB] Camp Pendleton) and local organizations. These 9 concerns are addressed in this section. 10

Impacts related to water resources are discussed in 4.9, "Hydrology and Water Quality"; impacts related to soils are discussed in Section 4.6, "Geology, Soils, and Mineral Resources"; and a further discussion of the habitat conservation plans as they relate to land use and planning is provided in Section 4.10, "Land Use and Planning."

16 4.4.1 Environmental Setting17

This section describes biological resources in the proposed project area, including habitat types,
ecologically valuable communities, and special status species. In this document, "special status species"
refers to any of the following:

- Species listed under the Federal Endangered Species Act of 1973 (ESA) as "Endangered" (FE) or "Threatened" (FT) (Title 50, Code of Federal Regulations [CFR] Section 17.11 or 17.12);
- Species listed under the California Endangered Species Act (CESA) as "Endangered" (SE), "Threatened" (ST), or "Rare" (R) (Sections 670.2 or 670.5, Title 14, California Code of Regulations);
- Species without a formal listing status that meets the definitions of "Endangered" or "Rare" under California Environmental Quality Act (CEQA) Guidelines Section 15380, including CDFW "Species of Special Concern" (SSC), "Candidate" (FC), or species "Proposed" for listing under the ESA, USFWS "Birds of Conservation Concern," and California Native Plant Society (CNPS) rare plant ranks 1B and 2, which are categorized into the following subsections:
- 32 1A: Presumed extinct in California
- 1B.1: Rare, threatened, or endangered in California and elsewhere. Extremely endangered in California
- 1B.2: Rare, threatened, or endangered in California and elsewhere. Fairly endangered in California
- 1B.3: Rare, threatened, or endangered in California and elsewhere. Not very threatened in
 California
- 2.1: Rare, Threatened, or Endangered in California, But More Common Elsewhere; Seriously
 threatened in California
- 41 2.2: Rare, Threatened, or Endangered in California, But More Common Elsewhere. Fairly
 42 threatened in California.
- Species designated as "Birds of Conservation Concern") BCC by the USFWS;
- Species designated as "Fully Protected," (FP) and "Watch List" (WL) by the CDFW; and

• Species protected under local ordinances, including the San Diego Gas & Electric Company (SDG&E, or the applicant) Subregional Natural Community Conservation Plan (NCCP)/Habitat Conservation Plan (HCP) (i.e., Covered Species) (SDG&E 1995a) and the Orange County Southern Subregion HCP (NCCP/SAMP Working Group 2004).

4.4.1.1 Background/Methodology

8 Literature Review

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9 The literature reviewed in preparing this section included a search for special status plant and wildlife 10 species and sensitive vegetation community occurrences and locations in the vicinity of the proposed 11 project (within approximately 3 miles), as recorded in the CDFW's California Natural Diversity Database 12 (CNDDB). CNDDB records of occurrences were reviewed for the United States Geological Survey 13 (USGS) 7.5-minute Cañada Gobernadora, San Juan Capistrano, San Clemente, and Dana Point 14 quadrangles. In addition to the CNDDB, the following sources were reviewed in preparation of the 15 surveys and the impacts analysis conducted for this resource:

- USFWS list of endangered, threatened, and proposed species obtained from the USFWS Carlsbad
 Field Office (USFWS 2014a);
- California Herps' A Guide to the Amphibians and Reptiles of California (California Herps 2014);
- Cornell Lab of Ornithology's eBird database website of publicly reported bird sightings (eBird 2014);
- CNPS 2012 online Inventory of Rare and Endangered Plants of California (CNPS 2013);
- USFWS's online Critical Habitat Portal (USFWS 2014b);
- CDFW's Special Animals List (CDFG 2011);
- CDFW's Endangered and Threatened Animal List (CDFW 2014); and
- National Wetlands Inventory (USFWS 2014c).
- 27

Additional local and regional biological resources were reviewed to identify applicable ordinances or
 conservation plans, including the SDG&E Subregional NCCP/HCP (SDG&E 1995a) and the Orange
 County Southern Subregion HCP Planning Guidelines (NCCP/SAMP Working Group 2004).

3132 Surveys Conducted

33 The applicant conducted reconnaissance-level surveys, general habitat assessment surveys, and protocol-

34 level surveys for specific species in portions of the proposed project area, including the proposed double-

- 35 circuit 230-kilovolt (kV) transmission line, proposed 12-kV distribution line, proposed San Juan
- Capistrano Substation site, and Talega Substation were conducted in 2008, 2011, and 2012. During the
- 37 reconnaissance-level and general habitat surveys, the applicant's biological consultant mapped existing

38 vegetation communities and assessed the potential for sensitive or listed plant and wildlife species,

- 39 including species covered under the SDG&E Subregional NCCP/HCP. Protocol-level surveys were
- 40 conducted for coastal California gnatcatcher (*Polioptila californica californica*), least Bell's vireo (*Vireo*
- 41 *bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), arroyo toad (*Bufo*

42 *californicus*), and drainages and other water features. Surveys are summarized in Table 4.4-1; reports of

43 these surveys are presented in Appendix L-1, "Biological Resources Assessments for the Proponent's

44 Environmental Assessment" (SDG&E 2012a) and Appendix L-2, "Distribution Line Impact Analysis"

45 (SDG&E 2012b).

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Survey Report			
and Focus	Date	Method	Location
Reconnaissance- level and Habitat Assessment Surveys ^{1,2}	February 26–28, 2008; March 25, 2008; September 28–30, 2011; October 11,12, 2011; November 2, 2011; December 28, 29, 2011; February 16, 28, 2012; July 5, 2012	Meandering transects on foot, some driving surveys along access roads. Surveys included a 250-foot buffer area around the proposed project area. Vegetation mapping was based on descriptions provided by Sawyer and Keeler-Wolf (1995 and 2009), SDG&E's Subregional NCCP/HCP Section 3.1 (SDGE 1995a), and Holland (1986). All wildlife and wildlife signs, including tracks, fecal material, nests, and vocalizations were noted.	Along the proposed project area that supported existing vegetation.
Sensitive Status Plant Species and Vegetation Communities Surveys ^{1,2,4}	April 15,17,18, 2008; April 19–21, 24, 25, 2010 ⁴	Meandering pedestrian surveys in accordance with standardized guidelines issued by USFWS, CDFW, and CNPS. Surveys included a 250-foot buffer area around the proposed project area. Every plant taxon encountered was identified to the taxonomic level necessary to determine its rarity and listing status. The Holland Code was used to describe vegetation community types (Holland 1986).	Along the proposed project area except developed and residential areas.
Coastal California Gnatcatcher Surveys ¹	Breeding season 2008 and 2010	USFWS Coastal California Gnatcatcher Presence/Absence Survey Guidelines for NCCPs	Only suitable coastal sage scrub habitat. ⁵
Least Bell's Vireo Surveys ¹	Breeding season 2008 and 2010	USFWS Least Bell's Vireo Presence/Absence Survey Protocol with modifications pursuant to the SDG&E Subregional NCCP/HCP	Only suitable riparian habitat ⁵
Southwestern Willow Flycatcher Surveys ¹	Breeding season 2008 and 2010	USFWS standard protocol as outlined in Sogge et al. (2010), including taped playback methods for three survey areas within the SDG&E easement and a 250-foot buffer along San Juan Creek in the southeast corner of the USGS San Juan Capistrano 7.5' quadrangle and Talega Creek in the southern portion of the USGS San Clemente 7.5' quadrangle.	Only potential breeding habitat ⁵
Arroyo Toad Surveys ¹	April 30; 2010; May 7, 15, 23, 29; 2010; June 5, 2010	USFWS Survey Protocol for the Arroyo Toad, including both daytime and nighttime surveys for three survey areas within the SDG&E easement and a 250-foot buffer along San Juan Creek in the southeast corner of the USGS San Juan Capistrano 7.5' quadrangle and Talega Creek in the southern portion of the USGS San Clemente 7.5' quadrangle.	Only potential breeding habitat ⁵

 Table 4.4-1
 Summary of Surveys Conducted for the Proposed Project

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Survey Report			
and Focus	Date	Method	Location
Reconnaissance- level and Habitat Assessment Surveys ^{1,2}	February 26–28, 2008; March 25, 2008; September 28–30, 2011; October 11,12, 2011; November 2, 2011; December 28, 29, 2011; February 16, 28, 2012; July 5, 2012	Meandering transects on foot, some driving surveys along access roads. Surveys included a 250-foot buffer area around the proposed project area. Vegetation mapping was based on descriptions provided by Sawyer and Keeler-Wolf (1995 and 2009), SDG&E's Subregional NCCP/HCP Section 3.1 (SDGE 1995a), and Holland (1986). All wildlife and wildlife signs, including tracks, fecal material, nests, and vocalizations were noted.	Along the proposed project area that supported existing vegetation.
Drainages and Other Water Features Surveys ^{1,2}	May and July 2010; December 2011; February 2012; July 5, 2012	The survey area width ranged in size from 500 feet along the transmission corridors to 1,100 feet in areas buffering the substation locations. Surveys were conducted using methods described in the USACE Wetland Delineation Manual (USACE 1987), the Regional Supplement to the USACE Wetland Delineation Manual: Arid West Region (USACE 2008a), and A Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States (USACE 2008b). Hydrologic features were assessed for potential indicators of stream, riparian, or wetland functions.	Along the proposed project area except developed and residential areas.

Table 4.4-1 Summary of Surveys Conducted for the Proposed Project

Key:

CDFW California Department of Fish and Wildlife

CNPS California Native Plant Society

HCP Habitat Conservation Plan

kV kilovolt

NCCP SDG&E Subregional Natural Community Conservation Plan

SDG&E San Diego Gas & Electric

USACE United States Army Corps of Engineers

USFWS United States Fish and Wildlife Service

Notes:

¹ Appendix L-1; SDG&E 2012a

² Appendix L-2; SDG&E 2012b

³ Sensitive Status Plant surveys were conducted during the optimal blooming period for each of the special status species identified as having the potential to occur in the proposed project area, with the exception of cliff spurge (*Euphorbia misera*), white rabbit-tobacco (*Pseudognaphalium leucocephalum*), and chaparral ragwort (*Senecio aphanactis*). Cliff spurge is a perennial shrub that would have been identified had it been present and the other two species are unlikely to occur within or adjacent to the proposed project area due to habitat requirements that do not exist within the proposed project area.

⁴ Protocol-level surveys for Coastal California Gnatcatcher, Least Bell's Vireo, Southwestern Willow Flycatcher, and Arroyo Toad were not completed for the proposed 12-kV distribution line segment. Suitable habitat for these species may be present along the 12-kV distribution line.

4.4.1.2 Common and Special Status Natural Communities

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The proposed project would transect multiple land use types, ranging from urbanized areas to intact quality habitat for wildlife, and perennial creeks. The undeveloped areas consist of foothills with steep valleys, covered primarily with a mixture of non-native vegetation and coastal sage scrub. Table 4.4-2 provides the results of the vegetation communities surveys (detailed in Table 4.4-1). Vegetation communities are illustrated in Appendices L-1 and L-2, "Vegetation and Sensitive Species Maps."

Vegetation Community	Acreage
Coastal Sage Scrub	182.35
Coastal Freshwater Marsh	0.20
Southern Willow Scrub	9.96
Riparian Scrub	2.65
Non-native Grassland ²	136.95
Disturbed	28.89
Ornamental	63.34
Dirt Roads	20.42
Developed	121.13
Total	565.90

Table 4.4-2	Vegetation Communities and Acreages within the Proposed
	Project Area ¹

Source: SDG&E 2012a,b

Notes:

¹ Vegetation within the proposed project area was identified using geographical information systems (GIS) data from the Biological Resources Assessment (Appendix L-1; SDG&E 2012a) combined with the acreage totals provided in the Distribution Line Impact Analysis (Appendix L-2; SDG&E 2012b).

² Vegetation classified in Appendices L-1 and L-2 as "ruderal" areas has been reclassified to non-native grasslands or appropriate contiguous habitat.

Special Status Vegetation Communities

3 Certain vegetation communities are afforded special status, including communities regulated by the

4 federal government under the Clean Water Act of 1977 (CWA), such as jurisdictional wetlands; site-

5 specific designated critical habitat areas for wildlife species listed under the ESA; and communities

6 regulated by the CDFW (CDFG 2009). CDFW-designated special status natural communities are

7 communities that support concentrations of sensitive plant or wildlife species, are of relatively limited

8 distribution, or are of particular value to wildlife (CDFG 2009). Special status vegetation communities

9 identified in the proposed project area include Coastal Sage Scrub (CSS) and riparian communities

10 (Southern Willow Scrub [SWS], Coastal Freshwater Marsh [CFM], and Riparian Scrub) (see Table 4.4-2

11 for acreage).12

13 CSS. Throughout southern California, CSS is considered a special status community by federal and state

14 resource agencies and local jurisdictions. CSS provides habitat for the federally threatened coastal

15 California gnatcatcher, as well as other animal and plant species that are candidates for federal listing,

16 state species of concern, or considered sensitive by local jurisdictions. CSS is listed as a natural

17 community within the SDG&E Subregional NCCP/HCP Plan Area.

18

19 **Riparian Communities**. The CDFW generally considers most wetland and riparian communities (i.e.,

20 those located in or adjacent to a drainage or other water feature) to be of special status. Most of the

21 historical riparian habitat in southern California has been degraded by urban development, flood control

22 projects, and conversion for agricultural purposes; thus, riparian communities are limited in distribution.

Furthermore, riparian communities provide food, shelter, and breeding habitat for numerous plant and animal species.

24 25

26 Riparian vegetation, including SWS, CFM, and Riparian Scrub communities, is found along the drainages

that occur in the proposed project area (see Section 4.4.1.3). Approximately 2.3 acres of southern

sycamore alder riparian forest, a type of SWS that is a CDFW-designated special status natural

- 29 community, was documented within the proposed project area (CNDDB 2013). This occurrence is located
- and east of Talega Substation on the rocket test site associated with MCB Camp Pendleton, and no impacts
- are expected on this sensitive natural community. Additionally, there is 0.20 acre of CFM within the

proposed project area, which is also listed as a special status natural community. Both CFM and SWS
 areas were determined to also be wetlands.

4 Critical Habitat and Soils

5 The proposed project area contains USFWS-designated critical habitat for arroyo toad and coastal 6 California gnatcatcher(Figure 4.4-1). Additionally, approximately 2 miles northeast of the proposed 7 project area is critical habitat for San Diego fairy shrimp (Branchinecta sandiegonensis) and thread-8 leaved brodiaea (Brodiaea filifolia). In addition to critical habitat for arroyo toad and coastal California 9 gnatcatcher, areas with soils that may support sensitive communities were also assessed (Natural 10 Resources Conservation Service 2014). For example, the thread-leaved brodiaea is often found in coastal 11 scrub on clay soils. Soils within the proposed project area that intersect with critical habitat are 12 predominantly clay, clay-loam, or sandy loam (e.g., riverwash). These soils are described further in 13 Section 4.6, "Geology, Soils, and Mineral Resources."

14

15 **4.4.1.3 Jurisdictional Waters**

16

Wetlands are ecologically productive habitats that support a diversity of plant and animal life. Often, species endemic to wetlands are found in no other habitat type. Wetlands are recognized as important natural systems because of their value to fish and wildlife and their functions as storage areas for flood flows, groundwater recharge, nutrient recycling, and water quality improvement. Wetlands are defined as areas that are periodically or permanently inundated by surface or ground water and support vegetation adapted to saturated soils.

 $\frac{-}{23}$

24 The proposed project area traverses numerous drainages and wetland areas within the San Clemente

Coastal Streams Watershed (part of the larger Aliso Creek-Frontal Gulf of Santa Catalina Water Basin)
 and the San Juan Creek Watersheds (USGS 2014). Section 4.9, "Hydrology and Water Quality,"

and the San Juan Creek Watersheds (USGS 2014). Section 4.9, "Hydrology and Water Quality,"
 describes additional water resources within the proposed project area, and Appendices L-1 "Biological

Resources Assessment" and L-2 "Addendum to Biological Resources Assessment".

29

30 The majority of waterways in the proposed project area are minor ephemeral drainages that contain water

for short periods of time during large storm events. Larger waterways, including the San Juan Creek,

32 Cristianitos Creek, and Prima Deshecha Cañada may be identified as seasonal waterways, containing

33 water for longer periods on a seasonal basis but not always perennially throughout their entire reaches.

Table 4.4-3 lists potentially jurisdictional waters within the proposed project area. Figure 4.4-2 shows the location of jurisdictional waters in the project area.

36

37 4.4.1.4 Common Wildlife Species

38

39 A variety of regionally abundant wildlife species are likely to occur throughout proposed project area.

40 During the field surveys, numerous native and non-native common wildlife species were observed within

41 the proposed project area. A complete list of species observed is included in Appendices L-1 and L-2.



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- ✓ Proposed transmission line
- → Existing transmission line
- Access road

- ∧ Roads
 - County Boundary
 - Distribution Line

Figure 4.4-2 Jurisdictional Features in the Proposed Project Area

South Orange County Reliability Enhancement Project This page intentionally left blank

		USACE	Jurisdict	ion			
		(acres)			CDF	W Jurisdiction (acres	5)
	Approximate		Other				
Feature	Linear Feet	Wetlands	Waters	Total	Riparian	Bed/Bank/Channel	Total
Horno Creek	1,120	0.22	0.14	0.36	1.83	0	1.83
San Juan Creek	1,015	4.21	1.86	6.07	7.07	0	7.07
Tributary to San Juan Creek	2,300	0	0.06	0.06	0.55	0.06	0.56
Tributaries to San Juan Creek 2 through 6	1,300	0	0.04	0.04	0.01	0.03	0.04
Rancho San Juan Drainage	960	0	0.94	0.94	2.55	0	2.55
Tributary to Prima Deshecha Cañada	3,880	0	0.22	0.22	0.59	0.13	0.72
Segunda Deshecha Cañada	1,040	0.68	0	0.68	1.38	0	1.38
Tributary to Segunda Deshecha Cañada 1	155	0.01	0.03	0.04	0.01	0.03	0.04
Tributary to Segunda Deshecha Cañada 2	715	0	0.03	0.03	0	0.03	0.03
Tributary to Segunda Deshecha Cañada 3	515	0.26	0.02	0.28	0.55	0.01	0.56
Tributary to Cristianitos Creek 1	1,290	0.8	0.08	0.88	2.78	0.01	2.79
Tributary to Cristianitos Creek 2	610	0	0.04	0.04	0	0.04	0.04
Tributary to Cristianitos Creek 3	630	0	0.02	0.02	0.26	0.01	0.27
Totals	15,530.00	6.18	3.48	9.66	17.58	0.35	17.88

Table 4.4-3 Potentially Jurisdictional Waters in the Proposed Project Area¹

Source: SDG&E 2012a.b

Key:

CDFW = California Department of Fish and Wildlife

USACE = United States Army Corps of Engineers

Jurisdictional acreages for Horno Creek, San Juan Creek, and Tributary to Cristianitos Creek 1 from the Biological Resources Assessment (Appendix L-1; SDG&E 2012a) are combined with the acreage totals provided in the Distribution Line Impact Analysis (Appendix L-2, SDG&E 2012b).

Special Status Species 4.4.1.5

3 4

2

1

This section discusses the special status species that may occur in parts of the proposed project area based on the literature review and surveys conducted (described in Section 4.4.1.1). Species that have no potential of occurring in the proposed project area are not considered or included in discussion of anticipated project impacts; this includes, for example, species whose extinction from the region is

presumed or confirmed, or species for which essential habitat or microhabitats are not present.

10

11 Special Status Plants with Potential to Occur

12 Special status plant species with the potential to occur in the project area are listed in Table 1 of Appendix

13 L-3, along with their habitat requirements and an indication of their known presence or assessment of

14 their potential to occur within the project area. There are 44 special status plant species with the potential

15 to occur within 3 miles of the proposed project. Each of these species was rated likely or unlikely to occur

16 in the proposed project area. Species were considered unlikely if (1) they have been identified in the

Note:

- 1 CNDDB records within 3 miles, but the recorded observations are extremely old; key habitat
- 2 requirements are absent; or the habitat in the proposed project 3 mile survey area is so degraded, small, or
- 3 isolated that it would be very unlikely for the species to colonize/utilize the area; (2) suitable habitat is
- 4 present within 3 miles, but species are not recorded in the CNDDB within 3 miles; or (3) species are not
- 5 identified in the CNDDB within 3 miles and no suitable habitat lies within the project survey area.
- 6 Conversely, a species was considered likely to occur if it is known to occur within 3 miles of the
- 7 proposed project (based on CNDDB records and /or professional expertise specific to the proposed
- 8 project survey area or species), and there is suitable habitat within the proposed project survey area. No 9 sensitive status plant species were observed during any of the special status plant species surveys.
- 10

11 Of the 44 special status plant species with potential to occur in the proposed project area, five are federal

- 12 or state-listed; big-leaved crownbeard (Verbesina dissita; FT, ST); Encinitas baccharis (Baccharis
- 13 vanessae; FT, SE, Covered Species); Laguna Beach dudleya (Dudleya stolonifera; FT, ST); Santa Monica
- 14 dudleya (Dudleya cymosa ssp. ovatifolia; FT); and thread-leaved brodiaea; FT, SE, Covered Species). Of
- 15 these species, only Encinitas baccharis and thread-leaved brodiaea are likely to occur (Appendix L-3;
- 16 Table 1). Based on geographic and elevation ranges and the presence of suitable habitat within the
- 17 proposed project area, 11 special status plants were determined likely to occur within the proposed project
- 18 area. These 11 species are further discussed below. The 33 special status plant species unlikely to occur
- 19 within the proposed project area are further discussed in Appendices L-1, L-2, and L-3.
- 20

21 Blochman's dudleya (Dudleya stolonifera; CNPS 1B.1)

22 Blochman's dudleya is a perennial species that occurs in chaparral, coastal scrub, and grasslands, habitat 23 types that exist in the proposed project area. This species prefers rocky, clay or serpentine soils between 24 15 and 1.475 feet elevation. The blooming period is April to June. CNDDB records indicate presence of 25 this species 2.5 miles from the proposed double-circuit 230-kV transmission line and 2.7 miles from the

- 26 proposed 12-kV distribution line components (CNDDB 2013).
- 27

28 California satintail (Imperata brevifolia, CNPS 2.1)

29 California satintail is a perennial herb that occurs in chaparral, coastal scrub, riparian scrub, meadows,

30 and Mojavean desert scrub in California. This species prefers moderately moist soils between 0 and 1,640

31 feet elevation, but can be found in wetlands. The nearest CNDDB record is 1.6 miles from the proposed project (CNDDB 2013).

32 33

34 Coulter's saltbush (Atriplex coulteri, CNPS 1B.2)

35 This low-growing species is native to southern California and northern Baja California. This species

36 blooms from March to October and can be found in coastal dunes, CSS, and grasslands between 10 and

37 1,510 feet elevation. There is suitable habitat in the proposed project area. The nearest CNDDB records

38 for this species are between 0.02 milesof the proposed double-circuit 230-kV transmission line and 2.6

- 39 miles from the proposed 12-kV distribution line (CNDDB 2013).
- 40

41 Encinitas baccharis (Baccharis vanessae; FT, SE, CNPS 1B.1, NCCP Covered Species)

42 Encinitas baccharis occurs in maritime chaparral and cismontane woodland at an elevation range between

43 200 and 2,360 feet. This species is commonly found in sandstone substrate. The blooming period is

44 August to November. CNDDB records indicate that there are documented occurrences within a 3-mile

45 radius of the proposed project (CNDDB 2013).

46

47 Intermediate mariposa lily (Calochortus weedii var. intermedius, CNPS 1B.2)

48 Intermediate mariposa lily is a perennial herb with purple and yellow flowers that bloom from May to 1 habitats between 345 and 2,800 feet elevation. There is suitable habitat in the proposed project area. The

- 2 nearest CNDDB records for this species are within 0.5 miles of the proposed double-circuit 230-kV
- transmission line, and another nine records are within 3 miles (CNDDB 2013).

5 Many-stemmed dudleya (Dudleya multicaulis, CNPS 1B.2, NCCP Covered Species)

6 This succulent is endemic to California, where it is found in chaparral, CSS, and grasslands. This species

- 7 prefers clay soils between 50 and 2,600 feet elevation. There is suitable habitat for this species in the
- 8 proposed project area. The nearest CNDDB records for this species are within 1.0 mile of the proposed
- 9 12-kV distribution line, and another nine records are within 3 miles of the proposed project area (CNDDB
- 10 2013). In addition, the species occurs at MCB Camp Pendleton (MCB Camp Pendleton 2012).
- 11

12 Mud nama (*Nama stenocarpum*, CNPS 2.2)

13 This species usually occurs in wetlands, and around waterbodies such as lakes and streams between 15

14 and 1,640 feet elevation, but is occasionally found in non-wetlands. There is suitable habitat for this

15 species in the proposed project area. The nearest CNDDB record for this species is within 2.3 miles of the

- 16 proposed 12-kV distribution line (CNDDB 2013).
- 17

18 Palmer's grapplinghook (*Harpagonella palmeri,* CNPS 4.2, NCCP Covered Species)

19 Palmer's grapplinghook is an annual that blooms March through May. This species is found in CSS,

20 chaparral, and grasslands between 65 and 3,140 feet elevation. There is suitable habitat in the project area.

21 The nearest CNDDB record for this species is within 1.5 miles of the proposed double-circuit 230-kV

transmission line and proposed 12-kV distribution line components (CNDDB 2013).

23 24 Salt spring checkerbloom (*Sidalcea neomexicana*, CNPS 2.2)

This perennial species is usually found in wetlands and playas and alkaline and mesic soils, but it is also occasionally found in CSS, creosote bush scrub, chaparral, and alkali sinks. This species occurs between 50 and 5,020 feet elevation. There is suitable habitat in the proposed project area. The nearest CNDDB

record for this species is within 1.2 miles of the proposed project (CNDDB 2013).

29

30 Thread-leaved brodiaea (Brodiaea filifolia; FT, SE, CNPS 1B.1, NCCP Covered Species)

31 Thread-leaved brodiaea is a federally listed threatened, state-listed endangered, and CNPS 1B plant found

32 only in California. This species' bluish-purple flowers bloom from March through June depending on

33 location and elevation. Thread-leaved brodiaea is found in CSS, openings in chaparral, grasslands, vernal

pools, and playas between 80 and 4,000 feet elevation. There is suitable habitat in the proposed project

area. The nearest CNDDB record for this species is 0.3 mile from the proposed double-circuit 230-kV

transmission line, and another nine records are within 2.4 miles of the proposed project (CNDDB 2013).

37 In addition, the species occurs at MCB Camp Pendleton (MCB Camp Pendleton 2012).

38

39 White rabbit-tobacco (*Pseudognaphalium leucocephalum;* CNPS 2.2)

40 This perennial species is found in sandy and gravelly soils between 0 and 6,900 feet elevation. It

41 commonly occurs in CSS, chaparral, riparian woodlands, and cismontane woodlands. There is suitable

42 habitat in the proposed project area. The nearest CNDDB record is within 0.2 mile of the proposed 12-kV

- 43 distribution line, and another three records are within 2.9 miles of the proposed project (CNDDB 2013).
- 44

45 Special Status Wildlife Present or with Potential to Occur

46 Special status wildlife species with the potential to occur in the proposed project area are listed in Table 2

47 of Appendix L-3, along with their habitat suitability and an indication of their known presence or

48 assessment of their potential to occur within the proposed project area. Thirty-seven special status wildlife

- 1 species with the potential to occur within 3 miles of the proposed project were identified through survey
- 2 efforts or by examining queries from CNDDB records searches and reviewing the SDG&E Subregional
- 3 NCCP/HCP Covered Species. As with special status plant species, each wildlife species with the potential
- 4 to occur was analyzed and determined to be likely or unlikely to occur in the proposed project area.
- 5
- Of the 37 special status wildlife species with the potential to occur in the proposed project area, six are
 known to be present in the proposed project area, and 19 special status wildlife species are likely to occur
 in the proposed project area. These 25 special status wildlife species are further discussed below. The 13
- 9 special status wildlife species unlikely to occur in the proposed project area are further discussed in
- 10 Appendices L-1, L-2, and L-3.

12 Invertebrates

13 Monarch Butterfly (*Danaus plexippus;* NatureServe vulnerable rank)

14 Neither the ESA or CESA lists the monarch butterfly as a special status species, but it is ranked as

- 15 vulnerable in California by the NatureServe rank system.⁸ Monarch butterflies congregate in clusters in
- 16 trees, primarily eucalyptus, during fall and winter migration. In general, they use the same trees every
- 17 year. This habitat is considered sensitive during the winter roosting and clustering period. The CNNDB
- 18 indicates that the species occurs in both San Clemente and San Juan Capistrano USGS quadrangles, but
- 19 there are no known roosting trees in the proposed project area.
 20
- 20 21 **Fish**

22 Arroyo chub (Gila orcuttii; SSC)

23 The arroyo chub inhabits slow moving coastal streams in southern California with muddy or sandy

bottoms. This species has CNDDB records documenting occurrence in San Juan Creek where the

- 25 proposed project area crosses the creek, as well as upstream and downstream of the area and in nearby
- tributaries (CNDDB 2013). The northern portion of the proposed project area near San Juan Capistrano
- 27 provides suitable habitat for the species.28

29 Southern steelhead (*Oncorhynchus mykiss irideus;* FE, SSC)

30 Southern steelhead is a sea-run rainbow trout (anadromous) that historically inhabited major coastal

31 streams in southern California. CNDDB records document occurrence of this species in San Mateo Creek,

- and it has been documented occurrences within MCB Camp Pendleton as recently as 2003 (MCB Camp
- 33 Pendleton 2012). In addition, Cristianitos Creek, near the eastern portion of the proposed project area is a
- tributary of San Mateo Creek and may provide suitable habitat for the species. Furthermore, restoration
- 35 projects near the proposed project could also support steelhead within the proposed project area
- 36 (California State Coastal Conservancy 2007).

3738 Amphibians and Reptiles

39 Arroyo toad (*Bufo californicus;* FE, SSC, Covered Species)

- 40 Arroyo toad requires shallow gravelly or sandy pools of intermittent streams for breeding that are in
- 41 proximity to upland grasslands or mixed scrub for foraging and aestivation. Records from the CNDDB
- 42 document the species within 0.1 mile of the proposed project area, specifically in San Juan Creek, San

⁸ The monarch butterfly is listed as a vulnerable species by NatureServe, which means the species has a restricted range and wintering sites are rare for this species. Although the monarch is globally secure, the species is vulnerable in the United States because of serious threats to their obligate overwintering areas in Mexico (mostly) and a recent order of magnitude decline in its California based population, which apparently reflects threats in the western breeding range (NatureServe 2014).

- Mateo Creek and Canyon, Cristianitos Creek, Talega Canyon, and Gabino Canyon. Suitable upland
 foraging habitat exists in the proposed project area (CNDDB 2013).
- 3

4 Arroyo toad protocol-level surveys were conducted during the summer of 2010 (Appendix L-1; SDG&E

- 5 2012a). Three areas were surveyed within the SDG&E easement and a 250-foot buffer along San Juan
- 6 Creek in the southeast corner of the USGS *San Juan Capistrano* 7.5' quadrangle and Talega Creek in the
- 7 southern portion of the USGS *San Clemente* 7.5' quadrangle. The surveys were conducted according to
- 8 the USFWS standard protocol as outlined in the USFWS Survey Protocol for the Arroyo Toad (USFWS
- 9 1999a) and included both daytime and nighttime surveys. The arroyo toad was absent from all survey
- 10 areas, although potential suitable upland foraging habitat was identified within the proposed project area 11 (refer to Appendix L-1). Areas within 0.9 mile of Cristianitos and Gabino Creeks would be considered
- 12 suitable upland habitat for the species, but not suitable for breeding.
- 13

14 Belding's orange-throated whiptail (*Aspidoscelis hyperythra;* SSC, Covered Species)

- 15 Belding's orange-throated whiptail is found in areas with loose soil and rocks and brushy habitat,
- 16 including chaparral and dry washes. Suitable habitat was identified in the proposed project area, but no
- 17 Belding's orange-throated whiptails were observed during surveys. The nearest CNDDB records for this
- 18 species are 1.5 miles and 2.1 miles from the proposed project (CNDDB 2013).
- 19

20 Coast horned lizard (*Phrynosoma coronatum blainvillei;* SSC, Covered Species)

21 The coast horned lizard occurs in relatively open landscapes. The CSS, annual grasslands, chaparral, oak

- 22 woodlands, and riparian woodlands in the proposed project area are appropriate habitat for this species.
- 23 Surveys did not detect any coast horned lizards; however, there are CNDDB records within 0.75 mile of

the proposed project area (CNDDB 2013). Species may be present in CSS habitat along the proposed

25 project area.26

27 Northern red-diamond rattlesnake (Crotalus ruber ruber; SSC, Covered Species)

28 The northern red-diamond rattlesnake inhabits arid areas and various habitats, including chaparral,

29 grasslands, oak and pine woodlands, and agricultural areas, preferring areas with rocky cover. Suitable

30 habitat was identified during surveys, but no occurrences were identified. The nearest CNDDB records

31 for this species are 1.5 miles and 2.1 miles from the proposed project (CNDDB 2013).

32

33 Two-striped garter snake (*Thamnphis hammondii;* SSC, Covered Species)

34 The two-striped garter snake occurs in or near fresh water, with rocky beds bordered by dense riparian

35 vegetation or chaparral and brushy habitats, including woodlands. No occurrences were identified during

36 field surveys. The nearest CNDDB record for this species is within 0.1 mile of the proposed 12-kV

37 distribution line (CNDDB 2013). There is potential for this species to occur within the riparian woodlands

38 and the perennially wet creeks and drainages crossing the proposed project area.

39

40 Western pond turtle (*Emys marmorata;* SSC, Covered Species)

41 The western pond turtle inhabits streams and other water features with aquatic vegetation. This species

42 requires habitat with basking sites of sandy banks or grassy open fields, and upland habitat up to 0.3 mile

- 43 from water for egg laying. Suitable habitat was identified in the proposed project area, specifically within
- 44 the perennially wet creeks and drainages crossing the proposed project route. The nearest CNDDB record
- 45 for this species is within 0.6 mile of the proposed project, and three more records are within 2.2 miles of
- 46 the proposed project (CNDDB 2013).

1 Western spadefoot (Spea hammondii; SSC, Covered Species)

2 The western spadefoot occupies various habitats, including CSS, chaparral, and grasslands, but requires 3 perennial pools for breeding and egg-laying. Suitable habitat was identified in the proposed project area,

4 but no occurrences were detected during surveys. The nearest CNDDB record for this species, dated

5 2001, is within 0.1 mile of the proposed double-circuit 230-kV transmission line, specifically in a pond at

6 the base of an existing transmission line tower. Additional records include those from Horno Creek within

7 2.2 miles of the proposed 12-kV distribution line and an extirpated record from within 2.6 miles of the

8 proposed double-circuit 230-kV transmission line (CNDDB 2013).

9 10 **Birds**

11 American peregrine falcon (*Falco peregrinus anatum;* BCC, FP, Covered Species)

12 The American peregrine falcon prefers open habitats like lakes, bays, and coastlines that contain prey

13 birds, mostly shorebirds and waterfowl. These falcons nest on cliffs in the wild, but have adapted to nest

14 on buildings and bridges in urban landscapes. Portions of the proposed project area contain suitable

15 nesting and foraging habitat. One active nest was identified in 2008 surveys 2,500 feet west of Talega

16 Substation, but this nest was not found again during 2011 surveys (Appendix L-1; SDG&E 2012a). There

are no CNDDB records within 3.0 miles of the proposed project area (CNDDB 2013).

18

Coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis;* SSC, Covered Species, Narrow and Endemic)

21 The coastal cactus wren uses CSS habitat that has prickly pear and coastal cholla (*Opuntia littoralis* and

22 *O. oricola*) tall enough to support and protect the bird's nest. These cactus species are necessary for the

23 presence of this species. Habitats with these key components were identified in the proposed project area;

however, field surveys did not record the presence of coastal cactus wren (Appendix L-1; SDG&E

25 2012a). The nearest CNDDB record for this species is within 0.2 mile of the proposed project, and there

are five additional records within 3 miles (CNDDB 2013).

27

28 Coastal California gnatcatcher (FT, SSC, Covered Species)

29 The coastal California gnatcatcher is an obligate of CSS. Species composition within that habitat varies

30 dramatically by coastal California gnatcatcher territory, but the California sagebrush (Artemisia

31 *californica*) is usually dominant or co-dominant (Atwood and Bontrager 2001). Optimal coastal

- 32 California gnatcatcher breeding habitat occurs below 1,640 feet elevation, on moderate slopes. Typical
- 33 breeding habitat requires at least two contiguous acres of appropriate vegetation. There is suitable nesting
- 34 and foraging habitat in the proposed project area. Nineteen observations of coastal California gnatcatchers
- 35 were made during both habitat assessment surveys and focused surveys in 2008, and 21 observations were

36 made during 2010 surveys. In addition, the surveys identified four nesting pairs within the proposed

37 project area (Appendix L-1; SDG&E 2012a). Observation locations are provided in Appendix L-1.

38 Several observations occurred in USFWS designated California gnatcatcher critical habitat.

39

40 Cooper's hawk (Accipiter cooperii; WL, Covered Species)

41 Cooper's hawk is a resident of woodlands, mixed forests, and riparian areas. In coastal southern

42 California, this raptor species has been successful at adapting to urbanized landscapes. Cooper's hawk is

43 commonly associated with eucalyptus trees, oaks, and other nonnative tree species. Areas with a similar

44 mix of trees in the proposed project area provide suitable nesting and foraging habitat. This species was

45 observed in riparian habitat and eucalyptus trees along the proposed project area, particularly in the

46 vicinity of San Juan Creek.

1 Least Bell's vireo (FE, SE, SSC, Covered Species)

- 2 Least Bell's vireo is the subspecies distributed along the western portion of the nominate species range.
- 3 Research has shown that least Bell's vireo benefits from using both riparian and non-riparian habitats
- 4 (Kus et al. 2010). A dense shrub layer from 2 to 10 feet above the ground is critical for this species to
- 5 conceal nests and to provide a variety of plant species for adult foraging (Kus et al. 2010). Breeding
- 6 territory size ranges from 0.5 to 7.5 acres (Kus 2002). Riparian overstory is usually dominated by
- 7 cottonwood (*Populus* spp.), sycamore (*Platanus* spp.), and willows (*Salix* spp.) (Kus 2002). Common
- 8 understory and nesting plant species that provide concealment are, mule fat (*Baccharis salicifolia*), marsh
- 9 baccharis (*Baccharis glutinosa*), blackberry (*Rubus ursinus*), and mugwort (*Artemisia douglasiana*)
- 10 (Olson & Gray 1989). Threats to this species include habitat degradation and loss and parasitism by
- 11 brown-headed cowbirds (*Molothrus ater*). Least Bell's vireo was observed during focused surveys at four
- 12 drainage locations spanned or paralleled by the proposed project area. Seven adults were heard and/or
- 13 observed during the surveys, and none of them appeared to be banded (Appendix L-1; SDG&E 2012a).
- Additionally, there are nine CNDDB records of this species within 3 miles of the proposed project area (CNDDB 2013).
- 16

Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens;* WL, Covered Species)

19 Southern California rufous-crowned sparrow is a year-round resident of rocky areas of hilly terrains with

20 mixed chaparral and CSS. Suitable nesting and foraging CSS habitats were identified in the proposed

21 project area. Southern California rufous-crowned sparrow was not observed during any field surveys

- 22 (Appendix L-1; SDG&E 2012a). The nearest CNDDB records for this species are 1.8 miles from the
- 23 proposed double-circuit 230-kV transmission line and 2.7 miles from the proposed 12-kV distribution line
- 24 (CNDDB 2013).
- 25

26 Southwestern willow flycatcher (FE, SE, Covered Species)

Southwestern willow flycatcher is a riparian obligate of the desert southwest, preferring thickets of
 willows along rivers, streams, springs, or other wetlands. This subspecies is found in riparian areas with

29 dense brush at all levels of the vegetation, with taller canopy trees such as cottonwoods or salt cedar. An

30 important component of the habitat is standing water or soil with high enough moisture to maintain the

31 appropriate shrubby vegetation (Sedgewick 2000). Southwestern willow flycatcher territory size varies

32 greatly, from as small as 2 acres to several hundred acres (Sogge et al. 2010).

33

There is suitable breeding habitat for southwestern willow flycatcher in the proposed project area. The nearest CNDDB records for this species are 1.4, 1.8, and 2.4 miles from the proposed project (CNDDB 2013). Focused surveys conducted in 2008 observed willow flycatchers that were presumed to be migratory individuals because they were only recorded once during the migratory period and not again

- 38 during the breeding season. These observations were in the riparian habitats 0.5 mile west and at 1 mile
- 39 southwest of Talega Substation (Appendix L-1; SDG&E 2012a). No southwestern willow flycatchers

40 were observed during the 2010 focused surveys for this species (Appendix L-1; SDG&E 2012a).

41

42 Tricolored blackbird (Agelaius tricolor; BCC, SSC, Covered Species)

43 Tricolored blackbirds breed and forage in fresh-water marshes of cattails, tule, and sedges, and willows

44 and blackberries. This species requires thick vegetation along water sources for nesting. In southern

45 California, tricolored blackbirds occur from Santa Barbara to San Diego counties. Field surveys identified

- 46 small patches of suitable habitat in the proposed project area. No observations of tricolored blackbird
- 47 were recorded, and the nearest CNDDB record for this species is within 1.2 miles of the proposed 12-kV
- 48 distribution line; it was also recorded 1.9 miles and 3.0 miles of the proposed double-circuit 230-kV
- 49 transmission line and proposed 12-kV distribution line (Appendix L-1; SDG&E 2012a; CNDDB 2013).

1 Western Burrowing owl (Athene cunicularia; SSC, Covered Species, Narrow and

2 Endemic)

3 Western burrowing owls are resident throughout southern California open grassland, desert, and

4 scrubland habitats with widely spaced vegetation. A ground nesting species, burrowing owls will often

5 use mammal burrows or other previously excavated holes for nesting. For foraging, this species requires

6 open areas with insects and small reptiles or mammals. This type of habitat, and in particular the presence

7 of California ground squirrel burrows, is found at various locations throughout the project area.

8

9 No western burrowing owls were observed in the proposed project area at the time of surveys (Appendix

10 L-1; SDG&E 2012a). Occurrences of western burrowing owl have been recorded within the proposed

11 double-circuit 230-kV transmission line project area near the Prima Deshecha Landfill (CNDDB 2013).

12 Though no western burrowing owls were observed in the project area, these owls are highly mobile and it

13 is likely that they could move into the area at any time. 14

15 White-tailed kite (Elanus leucurus; FP)

16 White-tailed kites generally occur in low elevation grassland, agricultural, wetland, oak woodland, and

17 riparian areas adjacent to open flat to steep areas and nest in trees. Suitable foraging and nesting habitat

18 was identified in the proposed project area and white-tailed kites were seen during surveys. In addition,

19 there are CNDDB records for this species within 0.3, 0.6, and 2.0 miles of the proposed double-circuit

20 230-kV transmission line (CNDDB 2013). 21

22 Mammals

23 Dulzura pocket mouse (Chaetodipus californicus femoralis; SSC, Covered Species)

24 The Dulzura pocket mouse occurs in grasslands, chaparral, and CSS. Suitable habitat was identified in the

25 proposed project area, but no occurrences were recorded during surveys (Appendix L-1; SDG&E 2012a).

26 The nearest CNDDB record for this species is within 2.7 miles of the proposed double-circuit 230-kV 27 transmission line (CNDDB 2013).

28

29 Mexican long-tongued bat (Choeronycteris mexicana; Covered Species)

30 This species' northernmost range is within the southernmost extent of the proposed project area. It often

31 feeds on nectar obtained from neighborhood hummingbird feeders and roosts in mine tunnels, caves, rock

32 fissures, and buildings near oak and mixed woodlands, which are sporadic throughout the proposed

33 project area. Although no occurrences were identified during field surveys, suitable roosting habitat was

34 identified in the proposed project area. Furthermore, there is a CNDDB occurrence within 2.7 miles of the

35 proposed project area (CNDDB 2013).

36

37 Mountain lion (Felis concolor; Covered Species)

38 Mountain lions are wide ranging and inhabit a variety of habitat types throughout North America. In

39 California, mountain lions can inhabit deserts, chaparral, and forests so long as there is adequate

40 topography and vegetative cover (Feldhamer et al. 2003; Wilson and Ruff 1999). They are most abundant

41 in areas that support a large population of ungulates (i.e., deer, but also livestock). They are less common

42 at higher elevations in pure stands of conifers and at lower elevations in pure stands of chamise

43 (Adenostoma fasciculatum) (Feldhamer et al. 2003). Marginal suitable habitat exists in the less disturbed

44 portions of the proposed project area and near MCB Camp Pendleton; no occurrences were identified

45 during field surveys. There are no CNDDB records within 3.0 miles of the proposed project area.

46 However, the Wildlife Health Center at the University of California Davis tracked a mountain lion

47 through the proposed project area in 2010 (UT San Diego 2010).

1 Pallid bat (Antrozous pallidus; SSC)

2 Pallid bats occur throughout California up to 8,000 feet in elevation. Pallid bats inhabit a variety of

3 habitats, including grasslands, shrublands, and woodlands. The proposed project area has suitable

4 foraging habitat, and roosting habitat may be present in the proposed project area in tree cavities, rock

5 crevices, and human-made structures including bridges. No occurrences or specific surveys were
 6 conducted for bats. The nearest CNDDB records for this species are 1.5 miles from the proposed double-

conducted for bats. The heatest CNDDB fecords for this species are 1.5 lines from the proposed double circuit 230-kV transmission line and 2.1 miles from the proposed 12-kV distribution line (CNDDB 2013).

8

9 Southern mule deer (*Odocoileus hemionus;* Covered Species)

Suitable habitat for southern mule deer includes chaparral, CSS, desert scrub, grasslands, and coniferous
 forests. Chaparral and CSS habitat suitable for mule deer was identified during surveys of the proposed

12 area (Appendix L-1; SDG&E 2012a).

13 14 **4.4.1.6 Wildlife Corridors**

14

A wildlife corridor is defined as a linear landscape feature that allows animal movement between two patches of habitat or between habitat and geographically discrete resources such as water. Connections between extensive areas of open space are integral to maintaining regional biological diversity and population viability. Areas that serve as wildlife movement corridors are considered biologically sensitive because they can facilitate the persistence of special status species. In the absence of corridors, habitats become fragmented, isolated islands surrounded by development. Fragmented habitats support much

22 lower numbers of species and increase the likelihood of extinction for select species.

23

Important distinctions exist between regional and local corridors. Regional corridors link two or more
 large areas of natural open space and maintain demographic and genetic exchange between wildlife
 populations residing within these geographically distinct areas, whereas local corridors give resident

animals access to essential resources (water, food, cover, or den sites) within a large habitat patch and

28 may also function as secondary connections to the regional corridor system. Different species have

different corridor use potentials. For example, a landscape feature that functions as a corridor for a

- 30 songbird may not suffice for a mountain lion or a reptile.
- 31

Another useful distinction can be drawn between natural and constructed corridor elements. Natural elements are features of the landscape such as canyons, streams, or riparian strips that are conducive to animal movement. Constructed elements such as roadway bridges and drainage culverts, are often part of a corridor. Wildlife corridors in a partially developed landscape generally include both natural and constructed elements. The SDG&E Subregional NCCP/HCP conserves habitats to the maximum extent practicable and preserves corridors connecting habitat by allowing the use of selected transmission rightof-way (ROW) for wildlife corridors as mitigation for certain impacts. These corridors are designed to

maintain connections between the primary preserves and to support supplemental populations between

- 40 preserves.
- 41

In the proposed project area, riparian corridors provide shade, cover, water, food, and discrete corridors
 for wildlife movement. Barriers to movement include highways and paved roads (such as Interstate 5 and

44 Highway 74), as well as the numerous residential neighborhoods along the proposed transmission

- 45 corridor. Areas of mountainous terrain, while providing corridors, may also present barriers to some
- 46 species unable to navigate the steep elevation. The SDG&E Subregional NCCP/HCP has identified
- 47 numerous species that may utilize habitat corridors for movement, including mountain lion, southwestern
- 48 willow flycatcher, least Bell's vireo, Belding's orange-throated whiptail, and many others (SDG&E

49 1995a). The SDG&E Subregional NCCP/HCP promotes the conservation of contiguous habitat for these

50 species, especially habitat containing appropriate refugia, foraging, and breeding habitat.

4.4.1.7 SDG&E Subregional NCCP/HCP Preserve Areas

1

2 3 Under the SDG&E Subregional NCCP/HCP, certain areas containing habitat for Covered Species are 4 considered preserve areas. Preserve areas include existing reserve or conservation areas established by 5 regional planning documents (e.g., Orange County Southern Subregion HCP); state, federal, and local 6 preserve areas; lands designated as public and private open space, community parks, and preserve land by 7 local general land use plans⁹ and public or private areas set aside for the long-term protection of plants 8 and wildlife (SDG&E 1995a,b). The proposed project would traverse through several areas that may be 9 considered preserve areas: identified within the Orange County Southern Subregion HCP City of San 10 Juan Capistrano open space; a conservation easement at Orange County's Prima Deshecha Landfill: City of San Clemente open space, including a yet-to-be recorded conservation easement in the Talega 11 12 Corridor; and San Onofre State Beach. Construction and maintenance impacts on preserve areas have 13 different mitigation requirements than on areas outside of preserve areas, as described in Section 7.4 of 14 the SCG&E NCCP/HCP (SDG&E 1995a). 15 16 The Orange County Southern Subregion HCP designates open space or preserve areas within the counties 17 of Orange and San Diego, including areas within the city of San Clemente, the city of San Juan 18 Capistrano, the County of Orange, and the family-held Rancho Mission Viejo (RMV) (Figure 4.4-3, 19 "HCPs and NCCPs within the Proposed Project Area"). The preservation areas under the Orange County 20 Southern Subregion HCP would be considered preserve areas under the SDG&E Subregional NCCP/HCP 21 (SDG&E 1995a, b). The proposed project traverses a small portion of a conservation easement at Orange 22 County's Prima Deshecha Landfill that was preserved as mitigation under the Orange County Southern 23 Subregion HCP to compensate for impacts on other areas by landowners participating in the HCP. Some 24 In addition, part of the proposed project-12-kV distribution line would also-traverses through RMV land 25 in Orange County, some of which is indicated to be reserve area, and run along roads adjacent to RMV 26 conservation easements; however, impacts to these conservation easements are not expected. The Reserve 27 at RMV is a growing reserve system of RMV land reserved for purposes such as education, stewardship, 28 and research. The Reserve is managed by the Rancho Mission Viejo Land Trust. These areas would be 29 considered preserve areas under the SDG&E Subregional NCCP/HCP (SDG&E 1995a,b). 30 The City of San Clemente has two open space land use designations: one for publicly owned existing and 31 dedicated parklands, passive open space areas, recreational facilities, and golf courses (OS 1) and one for 32 privately owned parklands, recreational facilities, passive open space areas, and golf courses (OS 2) (San 33 Clemente 2014). Some of the dedicated open space areas traversed by the proposed project may be 34 considered preserve areas under the SDG&E Subregional NCCP/HCP. 35 Similarly, tThe City of San Juan Capistrano has multiple open space land use designations, including: 36 37 General Open Space – this designation is general in nature and provides for the possible • 38 combined development of several of the uses or the individual development of one of the uses 39 specifically identified by the other open space and recreation designations; 40 Open Space Recreation – this designation provides for outdoor recreational facilities, including • 41 golf courses, swimming schools, tennis clubs, equestrian clubs, and caretaker facilities; and 42 Natural Open Space – this designation provides for natural open space land that separates • 43 developed areas from one another, preserves natural features like creeks, ridgelines or hillsides, or 44 includes natural hazards like landslides. This designation includes approximately 449 acres 45 located in the southern portion of the City of San Juan Capistrano (San Juan Capistrano 1999). 46

⁹ General Plan land use designations for the cities of San Clemente and San Juan Capistrano and the counties of Orange and San Diego are described in Section 4.10, "Land Use and Planning."

- 1 Some of the dedicated open space areas traversed by the proposed project may be considered preserve
- 2 areas under the SDG&E Subregional NCCP/HCP.

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Multiple Species Habitat

Conservation Plan NCCP/HCP

South Orange County Reliability Enhancement Project This page intentionally left blank

2 designated as Open Space (5), which indicates a current and near-term use of the land, most of which is 3 zoned as agricultural. The designation is not necessarily an indication of a long-term commitment of 4 specific uses, except when the designation is combined with an Open Space Reserve, a Natural Preserve, 5 or an Education/Park Complex . The proposed project would traverse lands that are within an Open Space 6 Reserve overlay (Orange County 2014a,b). This overlay identifies lands of scenic and natural attraction, 7 as well as areas of ecological, cultural, historical, and recreational significance that are permanently 8 preserved as and restricted to open space and compatible uses. Accordingly, these areas would likely be 9 considered preserve areas under the SDG&E Subregional NCCP/HCP (SDG&E 1995a,b). 10 11 12 Portions of the proposed project near Talega Substation are located on lands designated as Open Space or 13 Preserve but fall-within the San Onofre State Beach, which is under the jurisdiction of the United States 14 Marine Corps as part of Camp Pendleton and leased by the California Department of Parks and 15 Recreation (California Department of Parks and Recreation 2014). These areas would also be considered

A majority of the overhead proposed 12-kV distribution line would traverse through Orange County lands

preserve areas under the SDG&E Subregional NCCP/HCP (SDG&E 1995a,b).

18 4.4.2 Regulatory Setting19

20 **4.4.2.1 Federal** 21

22 Federal Endangered Species Act

The ESA (16 United States Code [U.S.C.] 1531 through 1543) provides a program for conservation and recovery of listed threatened and endangered species throughout all or a portion of their known range, and conservation of designated critical habitat determined as required for the survival and recovery of these species. The ESA makes it unlawful for any entity to harm a listed threatened or endangered species by organizing funding or carrying out actions that may negatively affect the species itself or its known habitat. Doing so would be considered *take* (i.e., harming, harassing, or killing) of a listed species without permit.

30

1

Provisions under the ESA allow for authorized "incidental" take of listed species under certain terms and conditions while conducting otherwise lawful activities. An applicant can procure an Incidental Take Permit by two processes, both of which require consultation with the USFWS, which administers the ESA for all terrestrial species and habitat, or the National Marine Fisheries Service, which administers the ESA for marine applicant on the habitat. The first pathway (ESA Section 10(a)) is established for situations in

- 35 for marine species and habitat. The first pathway (ESA Section 10(a)) is established for situations in
- which a non-federal government entity (where no federal nexus exists) must resolve potential adverse
 impacts on species protected under the ESA. The second pathway (ESA Section 7) involves projects with
- 57 Impacts on species protected under the ESA. The second pathway (ESA Section 7) involves projects with 38 federal connections or requirements; typically, these are projects sponsored or permitted by a federal lead 39 agency.
- 40

41 The USFWS or National Marine Fisheries Service ultimately issues a final Biological Opinion on

- whether the project would affect federally listed species. The Biological Opinion includes an Incidental
 Take statement of anticipated incidental take accompanied by the appropriate and reasonable mitigation
- Take statement of anticipated incidental take accompanied by the appropriate and reasonable mitigation
 measures to minimize such take. Biological Opinions for Section 10 permits require appropriate National
- 44 measures to minimize such take. Biological Opinions for Section 10 permits require appropriate National 45 Environmental Policy Act documentation and an HCP for the listed species affected by the action. The
- 45 Environmental Policy Act documentation and an HCP for the listed species affected by the action. The 46 SDG&E Subregional NCCP/HCP Implementing Agreement (SDG&E 1995b) and the Subregional Plan
- 40 SDG&E Subregional NCCP/HCP Implementing Agreement (SDG&E 1995b) and the Subregional Plan 47 (SDG&E 1995a) cover the proposed project activities. The USFWS has determined that the Subregional
- 47 (SDG&E 1995a) cover the proposed project activities. The OSF wS has determined that the Subregional 48 Plan contains all of the elements required by ESA Section 10(a)(2)(A) and 50 CFR Parts 17.22(b)(1) and
- 17.32(b)(2). The taking authorized under the Section 10(a) permit will be incidental to the otherwise
- 50 lawful activities of SDG&E. By complying with its obligations under the Implementing Agreement, the

Subregional Plan, and the Section 10(a) Permit, SDG&E will minimize and mitigate the impacts of such
 Incidental Take to the maximum extent possible.

4 Migratory Bird Treaty Act

5 The federal Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-712) provides protection for

6 most bird species that occur in the United States. The MBTA was enacted in response to the declines of

7 migratory bird populations from uncontrolled commercial uses. The MBTA makes it unlawful to pursue,
 8 hunt, take, capture, kill, or sell birds listed under the MBTA. Some common species are not covered

hunt, take, capture, kill, or sell birds listed under the MBTA. Some common species are not covered
 under the MBTA, including the European starling (*Sturnus vulgaris*), house sparrow (*Passer domesticus*),

10 rock pigeon (*Columba livia*), and game species such as grouse, turkey, and ptarmigan. There have been

several amendments to the original law (including the Migratory Bird Treaty Reform Act of 1998). This

12 statute does not discriminate between live or dead birds and grants full protection to any bird parts,

13 including feathers, eggs, and nests. Currently, 836 bird species are protected by the MBTA. The USFWS

14 Migratory Birds and Habitat Program primarily operates under the auspices of the MBTA (USFWS

15 16

2007a).

17 Bald and Golden Eagle Protection Act

18 The Bald and Golden Eagle Protection Act of 1940 (16 U.S.C. 668, enacted by 54 Statute 250) prohibits

19 any form of possession or taking of either bald eagles (*Haliaeetus leucocephalus*) or golden eagles

20 (Aquila chrysaetos). "Take" of bald and golden eagles is defined as follows: "disturb means to agitate or

bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available: (1) injury to an eagle: (2) a decrease in its productivity, by substantially interfering

information available: (1) injury to an eagle; (2) a decrease in its productivity, by substantially interfering
 with normal breeding, feeding, or sheltering behavior; or, (3) nest abandonment, by substantially

24 interfering with normal breeding, feeding, or sheltering behavior; (7) hest abandonment, by substantially 24 interfering with normal breeding, feeding, or sheltering behavior; (72 Federal Register 31132; 50 CFR

24 Interfering with normal breeding, feeding, or sheltering behavior (72 Federal Register 51152; 50 CFR 25 22.3). A 1962 amendment created a specific exemption for possession of an eagle or eagle parts (e.g.,

26 feathers) for religious purposes of Indian tribes.

27

28 Rule changes made in 2009 (74 Federal Register 175) finalized permit regulations to authorize limited

take of these species associated with otherwise lawful activities. These new regulations establish permit provisions for intentional take of eagle nests under particular limited circumstances (50 CFR 13 and 22).

The regulations include a USFWS program that will allow issuance of two new types of permits: one

31 The regulations include a USF wS program that will allow issuance of two new types of permits: one 32 addressing take in the form of disturbance or actual physical take of eagles (50 CFR 22.26), and the other

32 addressing take in the form of distribute of actual physical take of eagles (50 CFR 22.20), and the other 33 providing for removal of nests (50 CFR 22.27). Most permits issued under the new regulations are

expected to be those that would authorize disturbance, as opposed to physical take (i.e., take resulting in

35 mortality). Permits for physical take will be issued in very limited cases only, where every precaution has

36 been implemented to avoid physical take and where other restrictions and requirements will apply. In an

effort to implement the new regulations, the USFWS has recently published technical guidance, which

38 includes recommendations for applicants to prepare and submit an Avian Protection Plan for USFWS

39 review and guidance regarding the development of Eagle Conservation Plans to support permits for take

40 of eagles. The golden eagle is unlikely to occur in the proposed project area.

41

42 Clean Water Act

43 Section 404

44 The CWA regulates restoration and maintenance of the chemical, physical, and biological integrity of the

45 nation's waters. This act authorizes the USACE to regulate the discharge of dredged or fill material into

46 the Waters of the United States and adjacent wetlands. "Waters of the United States" are defined broadly

47 as waters susceptible to use in commerce, including interstate waters and wetlands; all other waters

48 (intrastate waterbodies, including wetlands); and their tributaries (33 CFR 328.3). Wetland delineation is

49 fundamental to USACE and United States Environmental Protection Agency regulatory responsibilities
under Section 404 of the CWA. Wetland delineations follow standardized procedures to determine whether a wetland is present on a site and, if so, establish wetland boundaries in the field. In combination with current regulations and policies, delineations are used to define areas of federal responsibility under the CWA within which jurisdictional agencies (e.g., USACE) attempt to minimize project impacts on the physical, chemical, and biological integrity of the waters. In determining jurisdiction under the CWA, the USACE is governed by federal regulations that define wetlands (33 CFR 320–330). The USACE Wetlands Delineation Manual is the accepted standard for delineating wetlands pursuant to the Section 404 regulatory program. A Regional Supplement to the USACE Wetlands Delineation Manual for the Arid West Region was released by the USACE in September 2008 (Version 2.0) and is the current accepted standard for the region.

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12 The USACE evaluates permit applications for all construction activities that may impact Waters of the

13 United States, including navigable waters. The USACE either performs or receives jurisdictional

14 delineations for proposed developments and then provides a jurisdictional determination. The

15 jurisdictional review performed by the USACE may require modifications of development plans to avoid

- 16 or reduce impacts on Waters of the United States.
- 17

18 Potential wetland areas, according to the three criteria used to delineate wetlands stated in the Corps of

19 Engineers Wetlands Delineation Manual (USACE 1987), are identified by the presence of (1)

20 hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. Areas that are inundated for

sufficient duration and depth to exclude growth of hydrophytic vegetation are subject to Section 404

jurisdiction as "other waters" and are often characterized by an ordinary high water mark. Other waters,
 generally include lakes, rivers, and streams. The placement of fill material into Waters of the United

24 States (including wetlands) generally requires an individual or nationwide permit from the USACE under

- 25 Section 404 of the CWA.
- 26

27 Section 401

28 Applicants applying for USACE permit coverage under Section 404 of the CWA for actions that could 29 result in any discharge into Waters of the United States must obtain a water quality certification from the 30 state in which the action is proposed. The State of California uses its C Section 401 certification authority 31 to ensure that Section 404 permit requirements for state water quality standards are met. Water quality in 32 California is governed by the Porter-Cologne Water Quality Control Act (California Water Code), which 33 assigns overall responsibility for water rights and water quality protection to the State Water Resources 34 Control Board (SWRCB). The nine statewide Regional Water Quality Control Boards (RWQCBs) 35 develop and enforce water quality standards within their boundaries. The California Water Code defines

Waters of the State" as any surface water or groundwater, including saline waters, within the boundaries
 of the state.

37 38

39 Waters of the State have high resource value, are vulnerable to filling, and are not systematically

40 protected by other programs. The RWQCB's jurisdiction includes "isolated" wetlands and waters that

41 may not be regulated by the Corps under Section 404. The RWQCB regulates Waters of the State under

42 the State Water Quality Certification Program, which monitors discharges of fill, and dredged material

- 43 under Section 401 of the CWA and the California Water Code. Projects that require a USACE permit, or
- fall under other federal jurisdiction, and have the potential to impact Waters of the State, are required to
- 45 comply with the terms of the Water Quality Certification determination. If a proposed project does not 46 require a federal permit, but does involve dredge or fill activities that may result in a discharge to Waters

47 of the State, the RWQCB has the option to regulate the dredge and fill activities under its state authority

47 of the State, the KwQCB has the option to regulate the dredge and the activities under its state autionty 48 in the form of Waste Discharge Requirements. The proposed project would be located within the

- 49 in the form of waste Disentinge Requirements. The proposed project would be resourced within the 49 jurisdiction of the San Diego RWQCB, which would be responsible for ensuring compliance with Section
- 50 401.

1 Section 402

2 As authorized by Section 402 of the CWA, the California SWRCB administers the statewide National

Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water
 Associated with Construction Activity (General Construction Activity NPDES Storm Water Permit.

Associated with Construction Activity (General Construction Activity NPDES Storm Water Permit,
 2009-0009-DWQ and 2010-0014-DWQ) that covers a variety of construction activities that could result

2009-0009-DWQ and 2010-0014-DWQ) that covers a variety of construction activities that could result
 in wastewater discharges. Under this General Permit, the state issues a construction permit for projects

that disturb more than one acre of land. To obtain the permit, applicants must notify the SWRCB of the

8 construction activity by providing a Notice of Intent, develop a storm water pollution prevention plan

9 (SWPPP), and implement water quality monitoring activities as required.

10

11 Marine Corps Base Camp Pendleton Integrated Natural Resources Management Plan

12 The proposed project would traverse through a portion of MCB Camp Pendleton, which is subject to the

13 Integrated Natural Resources Management Plan (INRMP). The INMRP is a planning document that

14 guides the management and conservation of natural resources under the base's control. The Sikes Act

15 requires that an INRMP be reviewed not less often than every five years, but MCP Camp Pendleton, the

16 USFWS, and the CDFW have agreed to meet annually to review the Camp Pendleton INRMP. The

- 17 INRMP was last republished in 2012. Special status species within MCB Camp Pendleton include 39
- 18 sensitive plant species and more than 50 mammalian, 30 reptilian, 10 amphibian, 300 avian, and 60 fish

19 species, at least 12 of which are federally or state listed species (MCB Camp Pendleton 2012). The

20 proposed project would traverse a portion of MCB Camp Pendleton that is leased to the California State

21 Parks, which is currently managed by the California Department of Parks and Recreation as San Onofre

22 State Beach. However, SDG&E would be subject to environmental documentation requirements (i.e.,

submit the Navy's/Marines' Preliminary Environmental Data sheet for review) pursuant to Marine Corps

24 Executive Order 5090.2. Additional National Environmental Policy Act compliance documentation (e.g.,

Categorical Exclusion) may be necessary to mitigate for impacts on federal land.

27 **4.4.2.2 State** 28

29 California Endangered Species Act

30 The CESA is similar to the federal ESA and is administered by the CDFW under California Fish and 31 Game Code Section 2050. The CESA was enacted to protect sensitive resources and their habitats. The 32 CESA prohibits take of CESA-listed species unless specifically provided for under another state law. 33 Take is defined under Section 86 of the California Fish and Game Code as "hunt, pursue, catch, capture, 34 or kill, or attempt to hunt, pursue, catch, capture, or kill" a state-protected species. The CESA allows for 35 incidental take associated with otherwise lawful development projects. A project applicant is responsible 36 for consulting with the CDFW, if applicable, to preclude activities that are likely to impact any CESA-37 listed threatened or endangered species or destroy or adversely affect habitat essential for such given 38 species. If take does occur, an Incidental Take Permit (California Fish and Game Code Section 2081) or 39 Consistency Determination (i.e., with USFWS Section 7 consultation) (California Fish and Game Code Section 2080.1) is required. As with the ESA, the proposed project would comply with the CESA through 40 41 SDG&E's Subregional NCCP/HCP Implementing Agreement process. Further, under the Implementing 42 Agreement (SDG&E 1995b), the CDFW issued a Management Authorization to SDG&E under Fish and 43 Game Code sections 2081 and 2835, that permits the Incidental Take of all Covered Species, subject to 44 SDG&E's compliance with the terms and conditions of the agreement, the Subregional Plan, and the 45 Management Authorization. 46

47 California Fish and Game Code §1600-1603, Streambed Alteration Agreement

48 Sections 1600 to 1603 of the California Fish and Game Code regulate activities that would "substantially
 49 divert or obstruct the natural flow of, or substantially change the bed, channel, or bank of, or use material

- 1 from the streambed of a natural watercourse" that supports fish or wildlife resources. A stream is defined
- 2 as a body of water that flows at least periodically or intermittently through a bed or channel having banks,
- 3 and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that
- 4 supports or has supported riparian vegetation. A Lake and Streambed Alteration Agreement must be
- 5 obtained from the CDFW for any proposed project that would result in an adverse impact on a river,
- 6 stream, or lake. If fish or wildlife would be substantially adversely affected, an agreement to implement
- 7 mitigation measures identified by the CDFW would be required.
- 8

9 California Fish and Game Code, Wildlife Protection

10 Section 3503 specifies the following general provision for birds: "it is unlawful to take, possess, or

- 11 needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any
- regulation made pursuant thereto." Section 3503.5 states that it is "unlawful to take, possess, or destroy
- 13 any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest
- 14 or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant
- 15 thereto." Construction disturbance during the breeding season that results in the incidental loss of fertile
- 16 eggs or nestlings, or otherwise leads to nest abandonment, is considered take. Disturbance that causes nest
- abandonment and/or loss of reproductive effort is also considered take by the CDFW.
- 18

19 Sections 3511, 4700, 5050 and 5515 prohibit the taking and possession of birds, mammals, fish, and

20 reptiles listed as "fully protected." Section 3513 provides for the adoption of the MBTA provisions. As

21 with the MBTA, this state code offers no statutory or regulatory mechanism for obtaining an incidental

take permit for the loss of non-game migratory birds. The CDFW administers sections 3511, 3513 4700,
 5050, and 5515.

23

25 California Native Plant Protection Act of 1977

California Fish and Game Code Section 1900 establishes the California Native Plan Protection Act, which
 includes provisions that prohibit the taking of listed rare or endangered plants from the wild. This act also
 includes a salvage requirement for landowners. Furthermore, it gives the CDFW authority to designate

- 29 native plants as endangered or rare and establishes protection measures.
- 30

31 California Code of Regulations

Sections 670.2 and 670.5 list wildlife and plant species listed as threatened or endangered in California or
 by the federal government under the ESA. Species considered future protected species by the CDFW are
 designated as SSC. SSC currently have no legal status but are considered indicator species that are useful

for monitoring regional habitat changes.

37 CEQA Guidelines Section 15380

38 CEQA Guidelines Section 15380(b) provides that species not listed on the federal or state list of protected
 39 species may be considered rare or endangered if the species can be shown to meet one of the following
 40 criteria:

41 42

43

44

(1) "Endangered" when its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors; or

(2) "Rare" when either:

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- (A) Although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or
- (B) The species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered "threatened" as that term is used in the Federal Endangered Species Act.

4.4.2.3 Regional and Local

11 SDG&E Subregional Natural Community Conservation Plan/Habitat Conservation Plan

12 In December 1995, the USFWS and CDFW approved the SDG&E Subregional NCCP/HCP, developed in 13 coordination with the resource agencies noted above. These plans address potential impacts on species 14 and habitat associated with SDG&E's ongoing installation, use, maintenance, and repair of its gas and 15 electric systems, and typical expansion to those systems throughout much of SDG&E's existing service 16 territory. Concurrent with the approval date, SDG&E, the USFWS, and the CDFW entered into a long-17 term Implementing Agreement that describes the legal rights and obligations regarding each of these 18 parties with respect to the implementation and maintenance of the NCCP/HCP. The Implementing 19 Agreement authorizes SDG&E to conduct its activities within the plan area, provided they are performed 20 in conformance with the plan. SDG&E's Subregional NCCP/HCP does not exempt projects subject to 21 permits from the California Public Utilities Commission (CPUC); therefore, the proposed project would 22 still be subject to the requirements of CEQA. 23

24 SDG&E's activities may impact certain sensitive plant and animal species or their habitat, which may 25 include species listed as threatened or endangered under the ESA or the CESA. As a part of the SDG&E 26 Subregional NCCP/HCP, SDG&E has been issued incidental take authorizations for 110 Covered Species 27 and their habitat by the USFWS under ESA Section 10(a) and CDFW under Fish and Game Code 28 Sections 2081 and/or 2835. Some of these species are restricted in their distribution, may have narrow 29 ecological requirements, and generally have low population numbers (refer to Section 4.4.2.3). As such, 30 take of these Covered Species is to be avoided; 20 of the SDG&E Subregional NCCP/HCP Covered 31 Species are provided only limited Incidental Take under the existing SDG&E Subregional NCCP/HCP 32 (SDG&E 1995a). The SDG&E Subregional NCCP/HCP limits take authorizations for these species to 33 emergencies and unavoidable impacts from repairs to existing facilities. Specifically, take of the "species 34 to be avoided" may not occur for non-emergency repair work without first conferring with the USFWS 35 and CDFW. For new projects, kill or injury of such animal species or destruction of such plants or their 36 supporting habitat would not be covered by the SDG&E Subregional NCCP/HCP and Implementing 37 Agreement.

38

The SDG&E Subregional NCCP/HCP was developed using a multiple species and habitat conservation planning approach. SDG&E's goal is to avoid, minimize, and/or mitigate any take of Covered Species and their habitat to the maximum extent possible. SDG&E would implement the following measures during construction, operations, and maintenance activities as part of the SDG&E Subregional NCCP/HCP:

44 45

- Avoidance whenever possible, accomplished by the implementation of developed operational protocols;
- 47 Allowing use of SDG&E fee-owned ROW for wildlife corridors to connect regional conservation areas;

- Establishment of mitigation credits, which will be debited to mitigate for actual impacts as projects are realized; and
 - Use of restoration and enhancement, sometimes instead of debits to the mitigation credits and sometimes in addition to such debits.

5 6 The NCCP prescribes 61 operational protocols that provide various protection, mitigation, and 7 conservation measures that SDG&E must implement with its covered activities. The SDG&E Subregional 8 NCCP/HCP allows for up to 400 acres of mitigation (i.e., mitigation credits) of impacts on natural areas 9 before requiring a plan amendment. As of 2013, approximately 134 acres of possible 400 have been used 10 (SDG&E 2014). Restoration and enhancement are also available as mitigation measures, sometimes 11 instead of debits to the mitigation credits and other times in addition to such debits (SDG&E 1995a). In 12 approving the SDG&E Subregional NCCP/HCP, the USFWS and CDFW determined that the mitigation 13 measures and operational protocols avoid potential impacts and provide appropriate mitigation where 14 such impacts are unavoidable, and ensure the protection and conservation of federal and state listed 15 species and Covered Species and their habitat.

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17 Under its NCCP, SDG&E consults with the USFWS and CDFW by preparing "pre-activity surveys" that

18 evaluate the scope and nature of potential impacts in advance of construction or maintenance activities

19 (SDG&E 1995a). Once the pre-activity survey is submitted, a process described in the NCCP allows the 20 USFWS and CDFW to review the project. The SDG&E Subregional NCCP/HCP was developed to be

20 USFWS and CDFW to review the project. The SDG&E Subregional NCCP/HCP was developed to be 21 fully implemented as an overlay of and independent of such other plans within its boundaries (SDG&E

22 1995b). However, limited exceptions are stated in the NCCP relating to preserve areas. When working in

23 a preserve area, the SDG&E Subregional NCCP/HCP requires SDG&E to follow a process whereby

24 SDG&E must "coordinate with USFWS and CDFW in accordance with the procedure set forth below to

25 plan and construct such new Facilities in a manner which avoids or minimizes any impacts on Covered

26 Species and their habitat, to the extent possible, while not impairing SDG&E's ability to meet the service

- demands of its customers in accordance with its responsibilities as a public utility" (SDG&E 1995a).
- 28

29 The proposed project falls within the area governed by the SDG&E Subregional NCCP/HCP, and the

30 NCCP will be applied to the proposed project.¹⁰ The SDG&E Subregional NCCP/HCP mitigation

31 measures and operational protocols have been incorporated as part of the proposed project description.

32 SDG&E will 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 proposedproject under the NCCP.
- 34 35

36 Orange County Southern Subregion HCP

The Orange County Southern Subregion HCP is a comprehensive, long-term HCP developed to provide
conservation for multiple species in South Orange County. This HCP serves as a Master Streambed
Alteration Agreement under Sections 1600 through 1616 of the California Fish and Game Code, as well
as an HCP pursuant to Section 10(a)(1)(B) of the ESA. Although the plan was initially drafted to be a
joint HCP/NCCP, the CDFW has not adopted the Implementation Agreement, and thus it is currently only
an HCP (LSA 2010).

43

The USFWS-approved HCP includes 132,000 acres of adjoining lands owned by the family-held RMV,
 or under the jurisdiction of the County of Orange or the Santa Margarita Water District. The plan creates

46 a preservation area totaling 32.818 acres, including 16.536 acres of newly dedicated conservation lands,

47 some of which were not previously conserved and managed (USFWS 2007c).

⁴⁸

¹⁰ The CDFW has stated that the entire proposed project is covered by the NCCP (CDFW 2013).

1	County of Orange General Plan
2 3 4	The Resources Element of the County of Orange General Plan includes the following goal, objective, and policy for biological resources that are applicable to the proposed project:
5 6	• <i>Natural Resource Goal 1:</i> Protect wildlife and vegetation resources and promote development that preserves these resources.
7 8	• <i>Natural Resource Objective 1.1:</i> To prevent the elimination of significant wildlife and vegetation through resource inventory and management strategies.
9 10 11	• <i>Natural Resource Policy 1:</i> Wildlife and Vegetation: To identify and preserve the significant wildlife and vegetation habitats of the County.
11	San Diego County General Plan
13 14 15	The Conservation and Open Space Element of the San Diego County General Plan includes the following goals and policies for biological resources that are applicable to the proposed project:
16 17	• <i>Goal COS-1:</i> Inter-Connected Preserve System. A regionally managed, inter-connected preserve system that embodies the regional biological diversity of San Diego County.
18 19 20	• Policy COS-1.9: Invasive Species. Require new development adjacent to biological preserves to use non-invasive plants in landscaping. Encourage the removal of invasive plants within preserves.
21 22 23	• Goal COS-2: Sustainability of the Natural Environment. Sustainable ecosystems with long-term viability to maintain natural processes, sensitive lands, and sensitive as well as common species, coupled with sustainable growth and development.
24 25 26 27	• Policy COS-2.1: Protection, Restoration and Enhancement. Protect and enhance natural wildlife habitat outside of preserves as development occurs according to the underlying land use designation. Limit the degredation of regionally important natural habitats within the Semi-Rural and Rural Lands regional categories, as well as within Village lands where appropriate.
28 29	• Policy COS-2.2: Habitat Protection through Site Design. Require development to be sited in the least biologically sensitive areas and minimize the loss of natural habitat through site design.
30 31	• Goal COS-3: Protection and Enhancement of Wetlands. Wetlands that are restored and enhanced and protected from adverse impacts.
32 33 34	• Policy COS-3.1: Wetland Protection. Require development to preserve existing natural wetland areas and associated transitional riparian and upland buffers and retain opportunities for enhancement.
35	• Policy COS-3.2: Minimize Impacts of Development. Require development projects to:
36	- Mitigate any unavoidable losses of wetlands, including its habitat functions and values; and
37 38 39 40	- Protect wetlands, including vernal pools, from a variety of discharges and activities, such as dredging or adding fill material, exposure to pollutants such as nutrients, hydromodification, land and vegetation clearing, and the introduction of invasive species.

1 City of San Clemente General Plan

The Natural Resources Element of the City of San Clemente General Plan includes the following policies
 relating to biological resources that are applicable to the proposed project:

4 5 6	 NR-1.02. Natural Areas. In natural areas that are undeveloped or essentially so, the City requires applicants for proposed projects to:
7 8	 avoid significant impacts, including retention of sufficient natural space where appropriate;
9	- retain watercourses, riparian habitat, and wetlands in their natural condition;
10 11 12	 maintain habitat linkages (wildlife corridors) between adjacent open spaces, water sources and other habitat areas and incorporate these into transportation projects and other development projects to maintain habitat connectivity;
13 14 15	 incorporate visually open fences or vegetative cover to preserve views, to ensure continued access, and to buffer habitat areas, open space linkages, or wildlife corridors from development, as appropriate;
16 17	 locate and design roads such that conflicts with biological resources, habitat areas, linkages or corridors are minimized; and
18 19	 utilize open space or conservation easements when necessary to protect sensitive species or their habitats.
20 21 22 23	• NR-1.03. Sensitive Habitats. The City prohibits development and grading which alters the biological integrity of sensitive habitats, including Riparian Corridors, unless no feasible project alternative exists which reduces environmental impacts to less than significant levels, or it is replaced with habitat of equivalent value, as acceptable to the City Council.
24 25 26 27 28	• Where no environmentally feasible alternative exists, development within Riparian Corridors shall avoid removal of native vegetation; prevent erosion, sedimentation and runoff; provide for sufficient passage of native and anadromous fish; prevent wastewater discharges and entrapment; prevent groundwater depletion or substantial interference with surface and subsurface flows; and protect and re-establish natural vegetation buffers.
29 30	• NR-1.04. Threatened and Endangered Species. The City preserves the habitat of threatened and endangered species in place as the preferred habitat conservation strategy.
31 32 33	• NR-1.05. Coastal Canyons. The City encourages activities that improve the natural biological value, integrity, and corridor function of the coastal canyons through vegetation restoration, control of non-native species, and landscape buffering of urban uses and development.
34 35 36 37	• NR-1.06. Habitat Conservation Plan. The City supports and will follow the U.S. Fish and Wildlife Services Orange County Southern Subregion Habitat Conservation Plan (HCP) and Habitat Management Program.
38	City of San Clemente Tree Ordinance
39 40 41 42 43	The City of San Clemente ordinance, City Owned Trees: Protection and Administration (Policy 301-2-1), establishes a policy for managing trees owned by the City of San Clemente. The ordinance covers street trees and all trees planted on city of San Clemente land, including all trees at beaches, parks, golf courses and conditionally those along public streets. In addition, the ordinance protects trees that exist on any developed or undeveloped property owned and maintained by the city of San Clemente. Replacement of

44 any trees removed would be considered and is at the discretion of the San Clemente Director of Beaches,

1 Parks and Recreation. The issuance of a tree removal permit by the City of San Clemente is a

2 discretionary action.

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4 City of San Juan Capistrano General Plan

The Conservation and Open Space Element of the City of San Juan Capistrano General Plan includes the
 following goal and policies for natural resources that is applicable to the proposed project:

- Conservation & Open Space Goal 2: Protect and preserve important ecological and biological resources.
- Policy 2.1: Use proper land use planning to reduce the impact of urban development on important ecological and biological resources.
- 12 **Policy 2.2:** Preserve important ecological and biological resources as open space.
- 13 **Policy 2.3:** Develop open space uses in an ecologically sensitive manner.
 - **Policy 2.4:** Continue to designate the City as a bird sanctuary to preserve and protect the populations of all migratory birds, which serve as a prime resource to the character and history of the community.

18 City of San Juan Capistrano Tree Ordinance

The City of San Juan Capistrano's Municipal Code (Section 9-2.349) establishes regulations for removal of trees within its boundaries. The ordinance requires a discretionary permit for the removal of trees over 6 inches in diameter measured 3 feet above grade. Permits are required for new development projects, utility easements, common landscape areas, nonresidential projects, City of San Juan Capistrano facilities and ROW, individual residential lots, and heritage trees.

25 **4.4.3 Impact Analysis**26

4.4.3.1 Methodology and Significance Criteria 28

29 The impact analysis for biological resources that may be affected by the proposed project was conducted 30 by (1) gathering and analyzing information from numerous sources (see description of sources below) in 31 addition to the data provided by the applicant (Section 4.4.1.1); and (2) evaluating temporal and spatial 32 effects to habitats and organisms that may be present within the project area and within a regional 33 geographic context. The CPUC assessed survey data provided by the applicant for accuracy and 34 appropriate implementation of resource agency protocols. Calculations for temporary and permanent 35 disturbance to vegetation habitat were based on the applicant's projections of land disturbance resulting 36 from construction of project components. Potential impacts and appropriate general minimization and 37 mitigation measures were developed using guidelines or input from resource agencies, specifically, the 38 USFWS, CDFW, and USACE. Biologists with specific local and regional knowledge were consulted to 39 determine potential impacts. Species occurrence maps in the area were reviewed to determine resource 40 location, distribution, and seasonality. Other relevant environmental documents for projects occurring in 41 the proposed project area were reviewed to ensure consistency with impact analyses and proposed 42 mitigation, including the La Pata Avenue Gap Closure and Camino Del Rio Extension Project 43 Environmental Impact Report (LSA 2010).

44

45 The impact analysis identifies and describes the proposed project's potential impacts on biological

46 resources within the proposed project area. In addition to the proposed project components, this analysis

47 considers impacts caused by staging areas and access roads, and impacts on habitat adjacent to project

48 components. The analyses focus on foreseeable changes to the baseline conditions in the context of the

significance criteria presented below. Impacts on biological resources resulting from the construction and
 operation of the proposed project can be characterized as direct or indirect, and temporary or permanent,
 which are defined as follows:

- *Direct effects,* or primary effects, are those effects that are caused by the project and occur at the same time and place (CEQA Guideline §15358). Examples include incidental take during construction, or elimination or degradation of suitable habitat due to construction-related activities.
- Indirect effect, or secondary effects, are those effects which are caused by the project and are later
 in time or farther removed in distance, but are still reasonably foreseeable (CEQA Guideline
 §15358). Examples include the erosion, sedimentation, and increased risk of fire that adversely
 affect vegetation communities or sensitive habitat within the project area.
- *Permanent impacts* are irreversible such as habitat loss due to clearing and development.
 - *Temporary impacts* are short in duration and/or reversible with the implementation of mitigation measures such as habitat loss mitigation by habitat restoration.

Potential impacts on biological resources were evaluated according to the following significance criteria.
The criteria were defined based on the checklist items presented in Appendix G of the CEQA Guidelines.
The proposed project would cause a significant impact on biological resources if it would:

- 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 CDFW or USFWS;
 - b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
- c) 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;
 - d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree
 preservation policy or ordinance; or
 - 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.

37 **4.4.3.2** Applicant Proposed Measures

The applicant has not committed to any Applicant Proposed Measures beyond those provided in the
 SDG&E Subregional NCCP/HCP (see Section 2.6.1.1 "SDG&E Natural Community Conservation
 Plan").

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4.4.3.3 Environmental Impacts

3 Have a substantial adverse effect, either directly or through habitat **Impact BR-1:** 4 modifications, on any species identified as a candidate, sensitive, or special 5 status species in local or regional plans, policies, or regulations, or by the 6 **CDFW or USFWS.** 7

LESS THAN SIGNIFICANT WITH MITIGATION

9 Direct, indirect, temporary, and permanent impacts on special status species, migratory bird species, and

10 vegetation communities are discussed below, along with measures proposed to avoid or reduce impacts

- 11 on these resources. The applicant has coordinated with the wildlife agencies to ensure development of 12 appropriate avoidance, minimization, or mitigation measures for potential impacts, in particular for
- 13 wildlife species with potential to be in the project area in which take is to be avoided (e.g., narrow
- 14 endemic species; Appendix L-3 (Table 2)). Based on meetings with the agencies, California red-legged
- 15 frog (Rana draytonii), Stephen's kangaroo rat (Dipodomys stephensi), and Pacific little pocket mouse

16 (Perognathus longimembris pacificus) are not anticipated in the project area (Gower pers. comm. 2013).

17 Coastal cactus wren and western burrowing owl are likely in the project area, and thus the proposed

18 project must avoid impacts on these species and their habitat.

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20 Overall, construction and operation of the proposed project could potentially impact the 11 special status

21 plant species likely to occur within the proposed project area and the 25 special status wildlife species

22 known to be present or likely to occur within the proposed project area (Section 4.4.1.5). With the

23 exception of steelhead, arroyo chub, monarch butterfly, pallid bat, and white-tailed kite, the wildlife

24 species described below are Covered Species in the SDG&E Subregional NCCP/HCP. The NCCP

25 outlines avoidance, mitigation, and compensation measures for Covered Species. The applicant would be

26 responsible for adhering to these requirements.

27

28 Construction and operation of the proposed project could also result in adverse impacts on migratory bird 29 species and special status vegetation communities.

30

31 **Special Status Plants**

32 No special status plants were identified within the proposed project area during surveys (Table 4.4-1).

33 Furthermore, special status plant surveys did not identify the presence of any other special status species

- 34 not covered under the SDG&E Subregional NCCP/HCP.
- 35 Construction- and restoration-related activities such as site preparation, vegetation removal, installation of
- 36 poles or towers, the use of construction equipment, and site restoration associated with the proposed
- 37 project could cause permanent and temporary direct and indirect impacts through the loss of special status
- 38 plants or their habitat, root or seed damage, changes in soil chemistry or composition, or by degrading
- 39 adjacent habitat through fragmentation and the introduction or spread of noxious or invasive plant
- 40 species. Permanent direct impacts could result from vehicle use, clearing of vegetation at tower footing
- 41 locations, or the application of herbicides for fire prevention and weed control. Indirect impacts on special
- 42 status plants may be caused by soil disturbance, sedimentation or runoff, and increased dust levels during
- 43 construction.
- 44 Impacts of project construction, operation, and maintenance on special status plants would be reduced by
- 45 implementing the avoidance and minimization measures included in the SDG&E Subregional
- 46 NCCP/HCP (SDG&E 2012a). Compliance with the SDG&E Subregional NCCP/HCP would reduce
- 47 impacts on Covered Species to a less-than-significant level.

1 Critical Habitat

2 Portions of the existing Talega Substation site, proposed double-circuit 230-kV transmission line, and

3 proposed 12-kV distribution line occur within USFWS-designated critical habitat for arroyo toad and

4 coastal California gnatcatcher. Portions of all three project components cross critical habitat for coastal

5 California gnatcatcher. This species was confirmed to be present adjacent to Transmission Line Segment

3 and Segment 4 in 2008 (Table 4.4-4). Critical habitat for arroyo toad occurs adjacent to Transmission
Line Segment 1b and Segment 4 and associated 12-kV distribution line Segment M near Talega

Line Segment 1b and Segment 4 and associated 12-kV distribution line Segment M near Talega
 Substation.

Table 4.4-4	Sensitive Plant and Wildlife Species and Critical Habitat by Project
Co	omponent

			Transmission Line Segments						
Species	Talega Substation	Proposed San Juan Capistrano Substatio	1a	1b	2	3	4	Access Roads	12-kV Distribution Line ¹
Plants									
Blochman's dudleya	SH			LSH		SH	SH	LSH	LSH
California satintail	SH			LSH		SH	SH	LSH	LSH
Coulter's saltbush	SH			LSH		SH	SH	LSH	LSH
Encinitas baccharis	SH			LSH		LSH	LSH	LSH	LSH
Intermediate mariposa lily	SH			LSH		SH	SH	LSH	LSH
Many-stemmed dudleya	SH			LSH		SH	SH	LSH	LSH
Mud nama				LSH		LSH			
Palmer's grapplinghook				SH	SH	SH	SH	LSH	SH
Salt spring checkerbloom				SH	SH	SH	SH	LSH	SH
Thread-leaved brodiaea	SH			SH	SH	SH	SH	LSH	
White rabbit-tobacco				SH					SH
Wildlife									
Monarch butterfly				SH					
Southern steelhead	SH								SH
Arroyo chub				SH					
Arroyo toad				CH			CH	CH	СН
Western spadefoot				SH	SH	SH	SH	LSH	LSH
Belding's orange- throated whiptail	LSH			SH	SH	SH	SH	LSH	LSH
Coast horned lizard	LSH			SH	SH	SH	SH	LSH	LSH
Northern red-diamond rattlesnake	LSH			LSH	LSH	LSH	LSH	LSH	LSH
Two-striped garter snake				LSH		LSH	LSH	LSH	LSH
Western pond turtle						LSH			
American peregrine falcon	LSH			SH	LSH	SH	SH	LSH	LSH
Burrowing owl	LSH			LSH	LSH	LSH	LSH	LSH	LSH
Coastal (San Diego) cactus wren	LSH			LSH		LSH	LSH	LSH	LSH
Coastal California gnatcatcher	CH			СН	CH	P; CH	P; CH	СН	СН
Cooper's hawk	SH			Р			Р	SH	Р
Least Bell's vireo	LSH				Р	Р	Р	SH	LSH
Southern California rufous-crowned sparrow	SH			SH	SH	SH	SH	LSH	LSH

•		– u	Transmission Line Segments						
Species	Talega Substation	Proposed San Juan Capistrano Substatic	1a	1b	2	3	4	Access Roads	12-kV Distribution Line ¹
Southwestern willow flycatcher	SH			LSH		LSH		LSH	LSH
Tricolored blackbird				LSH		LSH		LSH	LSH
White-tailed kite				LSH	LSH	LSH		LSH	LSH
Mountain lion	LSH						LSH	LSH	
Dulzura pocket mouse	SH			LSH		LSH		LSH	LSH
Pallid bat	SH			LSH		LSH		LSH	LSH
Mexican long-tongue bat	SH			LSH		LSH		LSH	LSH
Southern mule deer	SH			LSH		LSH	SH	LSH	LSH
Sources: Appendices L-1 and L-2; SDG&E 2012a, b Key: = No Habitat CH = Critical Habitat kV = kilovolt LSH = Limited Suitable Habitat P = Present SH = Suitable Habitat Notes:									

Table 4.4-4 Sensitive Plant and Wildlife Species and Critical Habitat by Project Component

¹ Only distribution lines within the proposed project area are included in this analysis unless otherwise noted.

1 2

In its December 2007 Final Rule, the USFWS determined that a recovery plan for the coastal California gnatcatcher is not beneficial to the species and that the NCCP program in southern California (including the SDG&E Subregional NCCP/HCP) is superior to the development of a recovery plan in terms of promoting conservation actions that would further recovery of the species (USFWS 2007b). The proposed project's anticipated impacts on the USFWS designated critical habitat for these species are presented in Table 4.4-5. The acreages presented in the table were calculated by overlaying the disturbance areas provided by the applicant with the critical habitat boundaries of these species provided by USFWS.

Table 4.4-5Arroyo Toad and Coastal California Gnatcatcher Critical
Habitat Acreages by Project Component

habitat / lor bageo by i reject beinpenent													
	Project Component												
		Proposed	Transr	nissio	n Line								
	Existing	San Juan											
	Talega	Capistrano											
	Substation	Substation						12-kV					
Species	Site	Site	1a	1b	2	3	4	Distribution Line	Total				
Arroyo Toad	Critical Habit	at											
Permanent				0.09			0.15	0.01	0.25				
Temporary				0.16			0.85		1.01				
Coastal California Gnatcatcher Critical Habitat													
Permanent				0.13		0.74	1.22	0.19	2.28				
Temporary	0.40			0.40 0.27 0.25 1.50 1.52 3.94									

Source: USFWS 2014a,b and Appendices L-1 and L-2; SDG&E 2012a,b

Key:

kV = kilovolt

---- = Critical Habitat not present.

- 1 Permanent impacts on the critical habitat for these species are associated with permanent project features
- 2 (e.g., substation, new towers, access road) that would remain throughout the life of the project. In
- 3 addition, there is potential for direct, incidental take of individuals during project construction. The
- 4 proposed project would require the permanent removal of these species' critical habitat for the
- 5 construction of the proposed substation, pole and tower footings, and access roads.
- 6

7 Temporary impacts on critical habitat are anticipated to result from project construction and restoration.
8 Construction activities would temporarily disturb or remove vegetation and produce elevated levels of
9 noise, dust, and light within and adjacent to the proposed project area. Potential disruption of animal
10 migration, breeding, and foraging through increased noise, light and glare, human or domestic animal
11 intrusion, and by degrading adjacent habitat through fragmentation, and the introduction or spread of
12 noxious or invasive wildlife and plant species could significantly affect special status wildlife. Elevated
13 levels of dust could also impact critical habitat by limiting a plant's ability to complete photosynthesis.

- 14 These impacts are associated with construction staging areas, wire stringing sites, the removal of existing
- 15 towers, and the use and improvement of existing access roads.
- 16

17 The areas of critical habitat that may be impacted by the proposed project exist within the boundaries of 18 the SDG&E Subregional NCCP/HCP. The SDG&E Subregional NCCP/HCP requires the applicant to 19 implement conservation measures (described in Section 7 of the SDG&E Subregional NCCP/HCP) that 20 would reduce impacts on critical habitat from construction and restoration activities, including employee 21 training programs, pre-activity surveys, and flagging of boundaries of habitats that must be avoided. The 22 proposed project has been designed to avoid habitat areas that may support special status wildlife species 23 to the greatest extent possible. Where avoidance of critical habitat is not possible (refer to Table 4.4-5), 24 implementation of these conservation measures would reduce impacts on critical habitat resulting from 25 project construction, restoration, operation, and maintenance to less than significant levels. Additionally, 26 the SDG&E Subregional NCCP/HCP requires land mitigation for permanent and temporary impacts on 27 critical habitat. Thus, impacts on critical habitat would be compensated for through site remediation

- and/or deduction of mitigation credits, as described in Section 7 of the NCCP.
- 29

30 Special Status Fish

31 Arroyo chub

32 The arroyo chub may occur where the proposed project would cross San Juan Creek, as well as upstream 33 and downstream of the area and in nearby tributaries. The proposed project components would span the 34 creek; however, direct and indirect impacts on the arroyo chub may still occur. Ground disturbing 35 activities in and around the San Juan Creek could impact the arroyo chub habitat. As described in Section 36 4.9, "Hydrology and Water Quality," to minimize potential impacts on water quality resulting from 37 sedimentation or accidental spills, the applicant would comply with applicable state storm water 38 regulations and city and county grading ordinances. Because the proposed project would result in more 39 than 1 acre of ground disturbance, the applicant would be required to apply for coverage under the 40 NPDES Construction General Permit to address storm water discharges. The Construction General Permit 41 requires development and implementation of a SWPPP, which specifies best management practices 42 (BMPs) to reduce or eliminate pollutants in storm water discharges from the site during construction that 43 would otherwise violate water quality standards. In addition to compliance with the NPDES Construction 44 General Permit, the applicant would implement applicable BMPs from its Best Management Practices 45 Manual for Water Quality Construction (BMP Manual), which includes BMPs for sediment controls, 46 waste management and material controls, non-storm-water discharge controls, and erosion control and 47 soil stabilization (SDG&E 2011). The applicant would also be required to prepare and implement a Spill 48 Prevention, Control, and Countermeasure plan to prevent oil spills from impacting water quality. The 49 operation of construction equipment and lighting could still impact arroyo chub. Arroyo chub is not a

50 Covered Species under the SDG&E Subregional NCCP/HCP. Therefore, direct and indirect impacts on

- 1 the species could be potentially significant. As discussed in Section 4.4.4, Mitigation Measure (MM) BR-
- 2 1 limits construction to designated areas and require spanning of riparian, aquatic, and wetland areas to
- 3 the greatest extent feasible. MM BR-2 requires biological monitors to be present during construction
- 4 activities in areas where sensitive resources have been identified and to halt construction in the event that
- 5 construction or restoration activities have the potential to impact an arroyo chub.
- 6
- Implementation of MM BR-1 and MM BR-2 would reduce potentially significant impacts on the arroyo
 chub to a less-than-significant level by avoiding this species' suitable habitat and employing monitors to
- 9 prevent any foreseeable impact on the arroyo chub.
- 10

11 Southern steelhead

12 CNDDB records document this species' occurrence in San Mateo Creek, and it has been documented

- 13 within MCB Camp Pendleton as recently as 2003 (MCB Camp Pendleton 2012). Cristianitos Creek, near
- 14 the eastern portion of the proposed project area, is a tributary of San Mateo Creek and may provide
- 15 suitable habitat for the species. The proposed project components would span the creek; however, direct
- 16 and indirect impacts on the southern steelhead may still occur. To address this, the applicant will
- 17 implement a SWPPP and Spill Prevention, Control, and Countermeasure plan as described above under
- 18 the arroyo chub heading. In addition, the applicant will implement MMBR-1 and MM BR-2. MM BR-1
- 19 limits construction to designated areas and require spanning of riparian, aquatic, and wetland areas, to the
- 20 extent feasible. MM BR-2 requires biological monitors to be present during construction activities in
- areas where sensitive resources have been identified and to halt construction in the event that construction or restoration activities have the potential to impact an arroyo chub. Implementation of MM BR-1 and
- or restoration activities have the potential to impact an arroyo chub. Implementation of MM BR-1 and
 MM BR-2 would reduce potentially significant impacts on the arroyo chub to a less-than-significant level
- by avoiding suitable habitat for this species and employing monitors to prevent any foreseeable impact on
- 25 the southern steelhead.
- 26

27 Special Status Amphibians and Reptiles

28 Arroyo toad

29 The proposed project would be located in areas designated by the USFWS as critical habitat for arroyo

30 toad. Areas within 0.9 mile of Cristianitos and Gabino Creeks are considered suitable upland habitat for

- 31 the species, but not suitable for breeding. Based on arroyo toad protocol-level surveys conducted during
- 32 the summer of 2010, arroyo toad was determined absent from the three survey areas (Appendix L-1;
- Table 4.4-1). Because the arroyo toad is a Covered Species and the applicant would adhere to the
- 34 requirements of the SDG&E Subregional NCCP/HCP, potential impacts on this species would be less
- 35 than significant.36

37 Belding's orange-throated whiptail

38 Suitable habitat for the orange-throated whiptail was identified in or adjacent to the Talega Substation,

- 39 Transmission Line Segment 1b, Segment 2, Segment 3, and Segment 4, as well as access roads and
- 40 portions of the 12-kV distribution line throughout the proposed project area. No Belding's orange-
- 41 throated whiptails were observed during surveys. Because the Belding's orange-throated whiptail is a
- 42 Covered Species, and the applicant would adhere to the requirements of the SDG&E Subregional
- 43 NCCP/HCP, potential impacts on this species would be less than significant.
- 44

45 Coast horned lizard

- 46 The coast horned lizard occurs in relatively open landscapes such as CSS, annual grasslands, chaparral,
- 47 oak woodlands, and riparian woodlands in the proposed project area. Suitable habitat for the coast horned
- 48 lizard was identified in or adjacent to the Talega Substation, Transmission Line Segment 1b, Segment 2,
- 49 Segment 3, and Segment 4, as well as access roads and proposed 12-kV distribution line areas throughout

1 the proposed project area. Surveys did not detect any coast horned lizards. Because the coast horned

2 lizard is a Covered Species and the applicant would adhere to the requirements of the SDG&E

3 Subregional NCCP/HCP, potential impacts on this species would be less than significant.

4

5 Northern red-diamond rattlesnake

6 The northern red-diamond rattlesnake inhabits arid areas and various habitats, including chaparral, 7 grasslands, oak and pine woodlands, and agricultural areas, preferably areas with rocky cover. Soils in the 8 proposed project area are typically more clayey than rocky. Based on the species' preferred substrate, the 9 proposed project area offers limited suitable habitat in or adjacent to the Talega Substation, Transmission 10 Line Segment 1b, Segment 2, Segment 3, Segment 4, as well as access roads and proposed 12-kV 11 distribution line areas. No occurrences were identified during surveys. The northern red-diamond 12 rattlesnake is a Covered Species. The applicant is required to adhere to the measures of the SDG&E 13 Subregional NCCP/HCP. Therefore, potential impacts on this species would be less than significant. 14

15 **Two-striped garter snake**

16 The two-striped garter snake occurs in or near fresh water, with rocky beds bordered by dense riparian 17 vegetation or chaparral and brushy habitats, including woodlands. The riparian woodlands in the proposed 18 project area are potential habitat for this species (Transmission Line Segment 1b, Segment 3, Segment 4, 19 portions of transmission line access roads, and portions of proposed 12-kV distribution line disturbance 20 areas). The proposed project is designed to avoid impacts on these areas. Given the relatively small 21 portion of the proposed project area with riparian woodlands, there is limited suitable habitat where this 22 species would be located. In addition, no occurrences were identified during field surveys. However, there 23 is potential for this species within the perennially wet creeks and drainages crossing the proposed project 24 area. Because the two-striped garter snake is a Covered Species and the applicant would adhere to the 25 requirements of the SDG&E Subregional NCCP/HCP, potential impacts on this species would be less 26 than significant.

28 Western pond turtle

The western pond turtle inhabits streams and other water features with aquatic vegetation. This species requires habitat with basking sites of sandy banks or grassy open fields, and upland habitat up to 0.3 miles from water for egg laying. There is limited suitable habitat within the proposed project area that meets the species habitat requirements. Portions of the proposed project along Transmission Line Segment 3 and

32 species habitat requirements. Portions of the proposed project along Transmission Line Segment 3 and 33 potentially portions of proposed 12-kV distribution line Segment M provide areas where the turtle may be

33 potentially portions of proposed 12-kV distribution line Segment M provide areas where the turtle may 34 located. Because the western pond turtle is a Covered Species and the applicant would adhere to the

- located. Because the western pond turtle is a Covered Species and the applicant would adhere to the
 requirements of the SDG&E Subregional NCCP/HCP, potential impacts on this species would be less
- 36 than significant.

37 unun 1

27

38 Western spadefoot

39 The western spadefoot occupies various habitats, including CSS, chaparral, and grasslands, but requires

40 perennial pools for breeding and egg-laying. Suitable habitat for the spadefoot was identified in or

- 41 adjacent to the Talega Substation, Transmission Line Segment 1b, Segment 2, Segment 3, and Segment 4,
- 42 as well as access roads and proposed 12-kV distribution line areas throughout the proposed project area.

Surveys did not detect any western spadefoot. Because the western spadefoot is a Covered Species and
 the applicant would adhere to the requirements of the SDG&E Subregional NCCP/HCP, potential impacts

- 44 the applicant would adhere to the requirements of the SDG&E Suc 45 on this species would be less than significant.
- 45 on this species would be less than significant.46

47 Special Status Birds

48 Some of the waterways and vegetation communities within the proposed project area contain suitable 49 habitat for one or more special status birds known to occur or with potential to occur in the proposed 1 project area and for migratory birds protected by the MBTA. Several individual and pairs of coastal

- 2 California gnatcatcher (FT), least Bell's vireo (FE/SE), southwestern willow flycatcher (FE/SE), and
- 3 American peregrine falcon (BCC/FP) were documented within the survey area (Appendix L-1; SDG&E
- 4 2012a). Cooper's hawk was also identified within the survey area. In addition, during habitat assessment
- 5 and focused surveys conducted for the proposed project, several stick nests, including two active red-
- tailed hawk nests, were identified on various tower structures within the proposed project area. Locations
 of these nests can also be found in Appendix L-1. Suitable breeding and/or foraging habitat for these birds
- 8 exist in the proposed project area, and portions of the proposed project area are considered critical habitat
- 9 by the USFWS for the coastal California gnatcatcher.
- 10

11 Construction, restoration, and operation of the proposed project components could result in direct

- 12 mortality of adult birds, chicks, or eggs, and temporary and permanent habitat loss. Tree trimming,
- 13 vegetation removal, and other ground-disturbing activities could result in direct take of birds through
- 14 mortality or injury to individuals or the loss of active nests, or could result in indirect impacts by
- removing nesting or foraging habitat or by degrading adjacent habitat through fragmentation and the
- 16 introduction or spread of noxious or invasive wildlife and plant species. Noise and visual disturbances
- 17 during construction could result in direct impacts on birds through nesting habitat avoidance or nest
- 18 abandonment. Additional direct impacts could result from collision with new transmission structures and
- electrocution. Many standard designs of electrical industry hardware place conductors and groundwires
- sufficiently close that larger birds can touch them simultaneously with their wings or other body parts, causing electrocution. Birds are opportunistically attracted to transmission lines because they provide
- 22 perch sites for hunting, resting, feeding, or territorial defense, or serve as nesting structures. Birds may
- 23 collide with transmission lines or poles, which can be difficult for birds to detect when flying at night,
- 24 during inclement weather conditions, or for other reasons. Strategies to avoid conflicts between birds and
- new transmission lines are described by the Edison Electric Institute's Avian Power Line Interaction
 Committee (APLIC 2012).
- 27

28 Construction disturbance that results in loss of individual birds, or during the general bird breeding season 29 for the region that results in loss of eggs or nestlings, or otherwise leads to nest abandonment, would be 30 considered a "take" by the USFWS under the MBTA or ESA or by the CDFW under the California Fish 31 and Game Code or CESA. In approving the applicant's NCCP, the USFWS and CDFW granted the 32 applicant authorization to take a Covered Species or a species' habitat when incidental to otherwise 33 lawful activities and determined that the mitigation measures and operational protocols avoid potential 34 impacts and provide appropriate mitigation where such impacts are unavoidable to Covered Species 35 (SDG&E 2012a). All of the special status birds with potential to occur in the proposed project area, with 36 the exception of the white-tailed kite, are Covered Species under the SDG&E Subregional NCCP/HCP. 37 The applicant would adhere to the requirements of the SDG&E Subregional NCCP/HCP, and potential 38 impacts on Covered Species, with the exception of coastal cactus wren and western burrowing owl would 39 be less than significant. The SDG&E Subregional NCCP/HCP has restricted the take of coastal cactus 40 wren and western burrowing owl to emergencies because they are considered narrow endemic species 41 (see Section 4.4.2.3). Based on the project-specific habitat assessment, areas within the proposed project 42 area are likely to support cactus wren and western burrowing owl. In addition to the requirements of the 43 NCCP/HCP, the applicant will implement MM BR-7 (Coastal Cactus Wren Avoidance) and MM BR-8 44 (Western Burrowing Impacts Reduction Measures), which include compensatory requirements and 45 avoidance of habitat. Implementation of MM BR-7 and MM BR-8 would reduce impacts on coastal 46 cactus wren and western burrowing owl to less than significant.

47

48 Construction of the proposed project could cause adverse impacts on avian species, including nesting

- 49 raptors and birds protected by the MBTA. Impacts on these bird species would typically result from
- 50 activities that would cause nest abandonment or destruction of chicks or eggs in active nests or death of
- adults due to collision, or activities that would reduce potential forage and nesting habitat. For most

1 species, impacts from the proposed project would be confined to project areas and areas immediately

2 adjacent to the project. For other species such as raptors, project-related impacts could extend up to a mile

or more beyond project boundaries, depending on the nature of the site (e.g., urban or rural) and
 topography.

4 5

6 Active bird nests in shrubs or near the ground would be susceptible to being crushed during clearing and 7 grading operations, and during any activities where vegetation would be crushed. Noise and visual 8 disturbance caused by construction and project-related traffic, including construction at work sites and 9 traffic along project access roads, could cause nest abandonment or habitat avoidance by birds nesting on 10 or off site in adjacent areas. Nest abandonment would result in death to chicks and hatching failure of 11 eggs. Alternatively, construction might cause birds to avoid suitable habitat and opt to nest or forage in 12 less suitable habitat. Many birds, but particularly small passerines when foraging or feeding young, 13 perform short flights, both in distance and time, for which take-offs, landings, ascents, descents and 14 maneuvering require energy. Short, repetitive flights caused by intermittent disturbances (i.e., 15 construction-related activities) require more energy for take-off (and climbing) and acceleration (Nudds 16 and Bryant 2000). Such impacts could cause energetic costs to these birds and could indirectly contribute 17 to stress, unsuccessful reproductive efforts, or death. Decreased foraging success due to habitat avoidance 18 or removal of foraging habitat could decrease the survival of chicks in nests near the project. Because 19 these impacts could occur at isolated nest sites within the proposed project area, and because the project 20 area is relatively small compared with the amount of similar habitat in the region, impacts on nesting birds would be localized.

21 22

Construction of new transmission line towers, or larger ones to replace old towers, could increase the risk of death of adult raptors and larger non-raptor species by collision (APLIC 2006). Impacts on white-tailed kite and other migratory birds that are not Covered Species but are protected under the MBTA or California Fish and Game Code would be partially reduced by adhering to the protocols described in the SDG&E Subregional NCCP/HCP. Thus, construction activities and traffic related to the proposed project

- would have the potential to cause adverse impacts on MBTA-protected birds and nesting bird species;
- 29 however, to reduce impacts on MBTA bird species and raptors, a number of additional mitigation
- 30 measures are recommended. MM BR-3 requires the applicant to conduct preconstruction surveys sweeps
- 31 for all wildlife. MM BR-4 limits removal of vegetation in riparian and other areas that may support white-
- 32 tailed kite and other migratory bird species' nesting habitat. MM BR-5 requires the applicant to use Avian
- 33 Safe Building Standards to further reduce impacts on migratory bird species. MM BR-6 requires the
- 34 applicant to prepare and implement a Nesting Bird Management Plan that would provide a comprehensive
- document to protect special status and MBTA birds by providing methods for avoidance, such as survey
- methodology and distances of nest exclusion buffers for all species.
- 38 Implementation of MM BR-2 through MM BR-8 would reduce potentially significant impacts on birds to 39 a less-than-significant level. Under these measures, structures will be built to reduce direct impacts on 40 avian species and avian habitat, a Nesting Bird Management Plan will outline how potential impacts on 41 nests would be avoided, and surveys will prevent direct impact on species within the proposed project 42 area.
- 42 43
- 44 Disturbances associated with the operation and maintenance of the project could cause impacts similar to 45 those caused by construction of the project, although operations and maintenance impacts would likely be
- 45 those caused by construction of the project, although operations and maintenance impacts would likely be 46 less intense. Noise and visual disturbances caused by operations and maintenance crews could cause
- 40 less mense. Noise and visual disturbances caused by operations and maintenance crews could cause 47 abandonment of active nests, which would result in the death of chicks or hatching failure of eggs.
- 47 abandonment of active nests, which would result in the death of chicks of natching failure of eggs. 48 Raptors often occupy nests built onto transmission line towers or poles. Nest abandonment caused by
- 49 noise and visual disturbances is likely, as well as increased susceptibility of chicks to death and/or
- 50 hatching failure of eggs from falls or from being crushed if active nests were moved or disturbed during
- 51 operations and maintenance. Such impacts could occur to active nests on transmission line towers or other

- 1 project facilities, but could also occur outside of established access roads and tower sites. The potential
- 2 for these impacts on nesting birds after the construction phase of the project is relatively small. In general,
- 3 due to the lower levels of disturbance associated with operation and maintenance activities, post-
- 4 construction adverse impacts on raptors would be short term and localized. Due to the lower levels of
- 5 disturbance associated with operations and maintenance activities, any adverse impacts on birds or raptor
- 6 species would be minor, short term, and localized.7

8 Special Status Mammals

9 Dulzura pocket mouse

10 The Dulzura pocket mouse occurs in grasslands, chaparral, and CSS. Suitable habitat was identified in or 11 adjacent to Transmission Line Segment 1b, Segment 3, and access roads associated with the transmission

12 line. Potential habitat may also be found adjacent to portions of the proposed 12-kV distribution line.

13 Dulzura pocket mouse was not observed during surveys (Appendix L-1; SDG&E 2012a). This species is

14 a Covered Species by the SDG&E Subregional NCCP/HCP, and the applicant would adhere to the

requirements of the NCCP. The applicant's compliance with all SDG&E Subregional NCCP/HCP

16 measures would reduce impacts on this species to a less-than-significant level.

17

18 Mountain lion

19 Marginal suitable habitat exists in the less disturbed areas of Transmission Line Segment 4 and portions

20 of the Talega Substation near MCB Camp Pendleton. In addition, MCB Camp Pendleton offers highly

21 suitable habitat for southern mule deer, a major component of the mountain lion's diet. However, field

surveys did not locate any mountain lions within the proposed project area. Because the mountain lion is a

23 Covered Species and the applicant would adhere to the requirements of the SDG&E Subregional

24 NCCP/HCP, potential impacts on this species would be less than significant.

25

26 Pallid bat

27 The proposed project area has suitable foraging habitat for the pallid bat (e.g., grasslands, shrublands, and

28 woodlands), and roosting habitats may be present in tree cavities, rock crevices, and human-made

structures, including bridges within the survey area. No occurrences or specific surveys were conducted

30 for bats. Pallid bat is a CDFW Species of Special Concern and is not a Covered Species under the

31 SDG&E Subregional NCCP/HCP. Therefore, direct and indirect impacts on the species could be

32 potentially significant. However, measures described in the SDG&E Subregional NCCP/HCP, and

implementation of MM BR-3 and MM BR-4, which require the applicant to conduct preconstruction

surveys sweeps for all wildlife and limit removal of vegetation in riparian and other areas that may
 support pallid bat habitat, would lessen potentially significant impacts to a less-than-significant level

because the species' habitat would be avoided (e.g., tree cavities for roosting) and pre-construction

37 surveys would evaluate potential habitat.

38

39 San Diego black-tailed jackrabbit

40 Suitable scrub habitat for the San Diego black-tailed jackrabbit was identified in or adjacent to

41 Transmission Line Segment 1b, Segment 3, and access roads associated with the transmission line.

42 Potential habitat may also be found adjacent to portions of the proposed 12-kV distribution line

43 disturbance areas. No jackrabbits were observed during field surveys (Appendix L-1; SDG&E 2012a).

44 Because this species is a Covered Species under the SDG&E Subregional NCCP/HCP and the applicant

45 would adhere to the requirements of the SDG&E Subregional NCCP/HCP, potential impacts on this

46 species would be less than significant.

1 Southern mule deer

Suitable habitat for southern mule deer includes chaparral, CSS, desert scrub, grasslands, and coniferous forests. The species is likely present within MCB Camp Pendleton and most portions of Transmission Line Segment 1b, Segment 3, Segment 4, and access roads associated with the transmission line and proposed 12-kV distribution line. The chaparral and CSS habitat suitable for mule deer was identified during surveys, along with observations of deer presence (Appendix L-1; SDG&E 2012a). Because the mule deer is a Covered Species and the applicant would adhere to the requirements of the SDG&E Subregional NCCP/HCP, potential impacts on this species would be less than significant.

10Impact BR-2:Have a substantial adverse effect on any riparian habitat or other sensitive11natural community identified in local or regional plans, policies, or12regulations, or by the CDFW or USFWS.13LESS THAN SIGNIFICANT WITH MITIGATION

14

25

15 Riparian habitat and special status natural communities are present within the proposed project area. 16 Impacts on riparian habitat are discussed in Impact BR-3, below, along with impacts on wetlands. Several 17 natural communities designated as special status by the USFWS, CDFW, and SDG&E Subregional 18 NCCP/HCP are present within the proposed project area. These sensitive natural communities are located 19 east of Talega Substation, along the proposed 230-kV transmission line, and along the proposed 12-kV 20 distribution line, and include CSS, southern willow scrub, freshwater marsh, and riparian scrub (Table 21 4.4-6). These communities are considered to be sensitive because of their limited acreage, moderate to 22 high wildlife value, gradual loss to development, and lack of recruitment. In addition, although non-native 23 grasslands are not considered sensitive, this community may provide foraging habitat for sensitive 24 species.

			Trans	smissio	n						
	Talega Substati	Proposed Sar Juan Capistrar Substation	1a	1b	2	3	4	12-kV Distributi Lines ^{3,4,}	Total⁵		
Coastal Sage Scrub	Coastal Sage Scrub (CSS)										
Permanent				0.10		0.35	1.13	0.01	1.59		
Temporary				0.18	0.08	0.59	1.16		2.01		
Coastal Freshwater N	/larsh ((CFM)									
Permanent									0.00		
Temporary									0.00		
Southern Willow Scr	ub (SW	S)									
Permanent									0.00		
Temporary									0.00		
Riparian Scrub											
Permanent									0.00		
Temporary									0.00		

Table 4.4-6 Impacts on Sensitive Natural Communities (in acres¹)

	ion	ר	Trans	smissio	on					
	Talega Substati	Proposed Sar Juan Capistrar Substation	1a	1b	2	3	4	12-kV Distributi Lines ^{3, 4,}	Total ⁵	
Non-native Grassland										
Permanent				0.38		1.30	0.71	0.03	2.42	
Temporary				2.7		5.10	0.62		8.42	

Table 4.4-6 Impacts on Sensitive Natural Communities (in acres¹)

Source: Appendices L-1 and L-2; SDG&E 2012a,b

Kev:

CPUC = California Public Utilities Commission

E & E = Ecology and Environment, Inc.

GIS = geographic information system

kV = kilovolts

Notes:

¹ Disturbance acreage by vegetation type is approximate.

- ² Disturbance acreage for the transmission lines and substation areas and were calculated by E & E based on GIS data provided by the applicant (Appendix L-1; SDG&E 2012a). Proposed 12-kV distribution line disturbance area based on SDG&E 2012b (Appendix L-2).
- ³ Distribution Structures No. D2 and D3 would share a 35-foot by 70-foot permanent maintenance pad, which includes a 10 foot radial clearance around each pole. Structures No. D4 and D5 would have the same requirements.
- ⁴ Pull and tension sites are typically required every 1 to 4 miles. Reel sites, which would be located opposite each pull and tension site, would also be required.
- Temporary and permanent disturbance areas estimated by the CPUC are larger than may actually be required because the estimates do not assume that laydown areas, maintenance pads, or clearance areas would overlap. Temporary disturbance areas for distribution poles was estimated to be approximately 40' x 40' with a 10' radial permanent disturbance area. Temporary disturbance areas for structures D2-D5 are 150' x 150'.
- 1 2

3

4

Direct, permanent impacts on special status natural communities would result from the removal of vegetation for substation construction, pole and tower installation, and access road construction. Impacts may also result from the use of temporary staging yards and wire-stringing sites. In addition, trees or

5 native vegetation may require trimming, crushing, or removal to accommodate construction of the

6 proposed project. Indirect effects, such as introduction of non-native invasive weeds and increased dust

7 could result from the use of access roads through sensitive habitat and significantly impact sensitive

8 natural communities. MM BR-9 requires the applicant to implement invasive species control measures 9

during construction and restoration activities.

10

11 Impacts analyses for special status natural communities were completed by overlaying the applicant-

12 provided geographic information system (GIS) data for the vegetation communities over the disturbance

13 area for the proposed project (Table 4.4-6). Because final project designs are not yet available, all special

14 status natural communities that intersect with the disturbance buffers for the proposed project components

15 are considered to be directly and permanently impacted for the purpose of this analysis unless otherwise

noted in the applicant's data. However, this is a conservative estimate, and it is assumed that actual 16

- 17 impacts on these sensitive communities would be less than what is analyzed here.
- 18
- 19 Although compliance with the SDG&E Subregional NCCP/HCP pre-activity studies requirements would

20 minimize the removal of special status natural communities, construction activities and traffic related to 21

- the proposed project would have the potential to cause significant impacts on sensitive natural 22 communities. As described in Section 4.4.4, MM BR-2 and MM BR-3 require preconstruction clearance
- 23 surveys and biological monitoring during construction, which will further reduce impacts on these natural

communities by identifying the locations of sensitive natural resources and special status natural communities that would be avoided during construction. Restoration, reclamation, and/or compensation via mitigation credits for temporary and permanent impacts on vegetation are described in Section 7 of the SDG&E Subregional NCCP/HCP. Implementation of requirements and measures described in the SDG&E Subregional NCCP/HCP, in combination with MM BR-2 and MM BR-3 would reduce potentially significant impacts on riparian habitat or other sensitive natural communities.

As described previously, areas designated as reserve or conservation land, or other core areas described in
local conservation plans, would be considered "preserve areas" under the SDG&E Subregional NCCP/
HCP. These preserve areas are protected because they provide areas of intact habitat for special status
species and areas of special status communities.

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13 The proposed project would traverse multiple conservation easements. Based on discussions with the 14 USFWS and CDFW, reserves or other areas subject to conservation easements are located within San 15 Juan Capistrano (View pers. comm. 2014), San Clemente, unincorporated Orange County (e.g., RMV 16 preserve areas), and within portions of San Onofre State Beach (Gower pers. comm. 2013). Discrepancies 17 among publicly available GIS data, data prepared by the CDFW and RMV, and confidential USFWS 18 data(USFWS 2014d,e), prevent an accurate estimate of impacts on these conservation easements, or 19 specific locations where impacts would occur. However, under the SDG&E Subregional NCCP/HCP, 20 SDG&E is required to compensate for impacts on preserve areas, as defined in Section 7 of the NCCP.

21

With the implementation of avoidance and minimization measures required by the SDG&E Subregional
 NCCP/HCP and MM BR-2, MM BR-3, and MM BR-9, the impacts on riparian or natural communities
 from construction, operation, and maintenance would be reduced to less than significant levels.

Impact BR-3: 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. *LESS THAN SIGNIFICANT*

31

Direct, permanent impacts on wetlands (including upland areas and drainages) as defined by Section 404
of the CWA may occur from constructing new access roads; clearing vegetation, which exposes topsoil to
weathering and erosion; and installing facilities within wetland or upland drainage areas. Numerous
wetlands, drainages, or riparian areas, including many known to be subject to federal jurisdiction, have
been identified in proximity to components of the proposed project (Figure 4.4-2, "Jurisdictional Features
within the Proposed Project Area"). There are no vernal pools within the proposed project area
(Appendices L-1 and L-2; SDG&E 2012a,b).

38 39

40 The applicant has identified portions of 13 aquatic features within the proposed project area (Table 4.4-3

41 and Appendices L-1 and L-2). These areas include approximately 17.88 acres of Waters of the State, of

which 17.58 acres are riparian, and 9.66 acres of Waters of the United States, of which 6.18 acres are
 wetland. These features were identified during project-wide jurisdictional delineations (Appendices L-1)

44 and L-2; SDG&E 2012a,b). Not all of the features are considered federally protected wetland systems, but

- 45 most support riparian habitat and several support sensitive wildlife species.
- 46

47 Construction of the proposed project would not result in permanent impacts on waters under the

48 jurisdiction of the USACE, RWQCB, and CDFW (Appendices L-1 and L-2; SDG&E 2012a, b).

49 However, construction of the proposed project would temporarily impact 25 linear feet (approximately

50 0.0006 acre) of an ephemeral drainage with a 1-foot width located within the tributary to Prima Deshecha

51 Cañada northwest of Transmission Line Pole 23. There are no wetlands associated with the tributary. The

high water mark. Vegetation within the tributary comprises annual weedy species such as non-native 1 2 bromes, tocalote, black mustard, and native upland species such as Mexican elderberry (Sambucus 3 mexicana), California sagebrush, deer weed (Acmispon glaber), and covote bush (Baccharis pilularis). 4 No wetland soils were identified within the tributary (Appendices L-1 and L-2; SDG&E 2012a, b). In 5 addition, the portion of the tributary within the proposed project area did not include a riparian canopy 6 that would be subject to CDFW jurisdiction. 7

8 Temporary impacts on the drainage would require permits from the regulatory agencies (USACE,

9 RWQCB, and CDFW). Because final project designs are not yet available, the applicant would likely 10 avoid these impacts by reorienting the temporary workspace. In addition, the USACE has not verified the

11 jurisdictional delineation prepared by the applicant. The extent of jurisdictional features within the

12 proposed project area is subject to their approval (Jurisdictional Determination), which can be obtained by

13 submitting an Approved Jurisdictional Determination Form to the USACE. Alternatively, the applicant's 14 jurisdictional delineation data could be used upon approval from the USACE (i.e., the USACE would

15 take jurisdiction based on the existing delineation and assessment of jurisdiction). In the event that the

16 applicant could not avoid impacts on the tributary, then additional consultation, permitting, and/or

17 mitigation would be required.

18

19 The operation and maintenance of the proposed project would be consistent with SDG&E's existing

20 operations and maintenance activities and would not materially increase in frequency or intensity. Any 21 future potential maintenance-related construction projects would be evaluated under General Order 131-D

22 and CEQA to assess whether further CPUC or regulatory agency approval is required and would be 23 conducted in compliance with the SDG&E Subregional NCCP/HCP. Implementation of the SDG&E 24 Subregional NCCP/HCP operational protocols (in particular, 7.1.4-20 through 23) and additional 25 measures required by the permitting process (e.g., BMPs, compensation, restoration, etc.) would

26 minimize and avoid erosion and siltation into any creeks, streams, rivers, or bodies of water. Through

27 these measures, direct and indirect impacts on jurisdictional waters would be less than significant. 28

29 Interfere substantially with the movement of any native resident or **Impact BR-4:** 30 migratory fish or wildlife species or with established native resident or 31 migratory wildlife corridors, or impede the use of native wildlife nursery 32 sites. LESS THAN SIGNIFICANT

33 34

> 35 There are no known native wildlife nursery sites within the proposed project area. The construction of the 36 proposed project may interfere with the movement of wildlife on a local scale, but would not substantially 37 impede the movement of migratory species such as birds or large mammals. Wildlife tend to utilize linear 38 features, such as canyons and rivers, that connect large blocks of habitat and provide links for dispersal 39 and migration. Components of the proposed project would transect several preserve areas that could be 40 used for wildlife movement because of the larger amount of space protected. The proposed project would 41 cross the Trampas Canyon and San Juan Creek corridors and would construct or replace overhead 42 transmission lines adjacent to the Cristianitos Canyon corridor (LSA 2010; Orange County Public Works 43 2004). Furthermore, creeks within the proposed project area support migratory fish such as southern 44 steelhead and contain ponds that support resident fish, invertebrates, amphibians, and birds (SCC n.d.) 45

46 Construction or operation of the proposed project is not expected to interfere substantially with the 47 movement of native fish or wildlife species because the proposed 230-kV transmission and proposed 12-

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kV distribution line structures would be sufficiently spaced to allow wildlife movement. In addition, the 49

SDG&E Subregional NCCP/HCP protects corridors as mitigation for impacts due to operations activities. 50

SDG&E's fee-owned ROW would be available for use as wildlife corridors in order to connect the 51

such corridors with the consent of the underlying land owner (SDG&E 1995a). Therefore, impacts under this criterion would be less than significant.

Impact BR-5:Conflict with any local policies or ordinances protecting biological resources,
such as a tree preservation policy or ordinance.
LESS THAN SIGNIFICANT

7 8 Expansion and/or construction of substations and other project components may require the removal of 9 several trees and the trimming of numerous more. Several local policies and ordinances govern the 10 removal or trimming of such trees (i.e., City of San Juan Capistrano Municipal Code (Section 9-2.349) 11 and the City of San Clemente ordinance, City Owned Trees: Protection and Administration (Policy 301-2-12 1)). The proposed project would remove approximately 49 trees from an area west of the proposed San 13 Juan Capistrano Substation between Camino Capistrano and Avenida de la Vista, within the city of San 14 Juan Capistrano. The City's ordinance states that "tree removal proposed by utility companies for trees 15 within utility easements shall require issuance of a tree removal permit, except in cases where a Qualified 16 Tree Expert has determined, in writing, that such tree(s) are a hazard to utility lines or facilities" (San 17 Juan Capistrano 2014). The proposed project would carry out tree trimming and removal activities in 18 accordance with applicable county regulations and the terms of any applicable permits. 19

- 20 The proposed project area may include individual oak trees and stands of oak trees or eucalyptus that 21 support special status species. Implementation of the operational protocols in the SDG&E Subregional 22 NCCP/HCP, designed to reduce impacts on native vegetation and habitats, would reduce impacts on trees 23 and sensitive natural communities (SDG&E 1995a). As compensation for impacts on sensitive areas, 24 enhancement methods may be proposed by SDG&E, with the USFWS and CDFW concurring prior to 25 implementation. If habitat enhancement is not selected, or is not successful according to the NCCP 26 criteria, then a deduction from the SDG&E mitigation credits shall be made in accordance with ratios 27 contained in Section 7.4 (SDG&E 1995a).
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29 Operation and Maintenance

30 Operation of the proposed project would require periodic maintenance of access and spur roads and areas 31 around transmission structures. This periodic maintenance may require trimming of protected trees to 32 ensure safe operation of the transmission lines and to ensure access for routine and emergency 33 maintenance. This maintenance work would be conducted consistent with CPUC General Order 95, Rule 34 35 and California Public Resources Code Sections 4292 and 4293. Additionally, incorporation of MM 35 BIO-1 through MM BIO-4, designed to reduce impacts on native vegetation and special status species, 36 including trees and special status natural communities, along with following the SDG&E Subregional 37 NCCP/HCP, would reduce impacts on trees to a level that is less than significant. By incorporating the 38 measures described above, the proposed project would not conflict with local policies or ordinances 39 protecting biological resources, including tree preservation policies or ordinances. 40

41Impact BR-6:Conflict with the provisions of an adopted Habitat Conservation Plan,4243Natural Community Conservation Plan, or other approved local, regional,4367state habitat conservation plan.4444LESS THAN-SIGNIFICANT WITH MITIGATION

- 45
- 46 All proposed project components would be constructed within the plan area of the SDG&E Subregional
- 47 NCCP/HCP, as well as the Orange County Southern Subregion HCP (Figure 4.4-3). The SDG&E
- 48 Subregional NCCP/HCP states that it is independent of other NCCPs or HCPs; therefore, it is neither
- 49 dependent upon the implementation of other NCCPs or HCPs, nor is it superseded by other plans.
- 50 However, the SDG&E Subregional NCCP/HCP also states that it takes the objectives of other HCPs and

NCCPs in the area "into consideration," and the SDG&E Subregional NCCP/HCP implementation would
 include coordination with other HCPs and NCCPs (SDG&E 1995a).

4 Under the SDG&E Subregional NCCP/HCP, certain areas containing habitat for Covered Species are 5 considered preserve areas; specified mitigation activities and ratios are required for impacts on a preserve 6 area. Preserve areas include existing reserve or conservation areas established by regional planning 7 documents (e.g., HCPs); state, federal, and local preserve areas; and public or private areas set aside for 8 the long-term protection of plants and wildlife (SDG&E 1995a,b). The proposed project would-traverse 9 through cross areas covered by the Orange County HCP that have been or are in the process of being 10 designated as mitigation or preservation areas, including the City of San Juan Capistrano open space; a conservation easement at Orange County's Prima Deshecha Landfill; City of San Clemente open space, 11 12 including a yet-to-be recorded Conservation Easement in the Talega Corridor; and San Onofre State 13 Beach the Reserve at RMV, designated open space in the cities of San Clemente and San Juan Capistrano 14 and the County of Orange, and San Onofre State Beach (see Section 4.4.1.7).

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16 Section 6.2.1 of the SDG&E Subregional NCCP/HCP provides a consultation process with the USFWS

17 and CDFW that SDG&E would follow for the proposed project when proposed new transmission

18 facilities would occur in a preserve area. The process specifies that SDG&E shall provide the USFWS

and CDFW with written notice of intent to construct in a preserve area, and then the wildlife agencies

20 shall provide a written response with any objections or alternatives within 20 working days. The process

21 continues with specified timelines for a reply from SDG&E, for USFWS and CDFW to object to this

reply, and finally, for an appeal to a review panel who shall make a final decision, consisting of the

23 Regional Director of the USFWS, Director of the CDFW, and SDG&E.

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The processes specified in the SDG&E Subregional NCCP/HCP to consider the objectives of other
 HCPs/NCCPs and to coordinate within preserve areas would reduce conflicts with the provisions of an

adopted HCP or other conservation areas plans, but not to a level that is less than significant. The

28 SDG&E Subregional NCCP/HCP does not specify a process for coordination with all landowners,

29 conservation easement holders, and regional plans in the proposed project area to determine the locations

30 of preserve areas (SDG&E 1995a,b). In addition, the SDG&E Subregional NCCP/HCP was written in

31 1995, and land ownership and conservation easements and plans, as well as staffing levels and

32 responsibilities of USFWS and CDFW staff, have changed since then. The CDFW has confirmed that the

proposed project is an activity covered by the SDG&E Subregional NCCP/HCP (Ponce pers. comm.

34 2013). The wildlife agencies have also affirmed that preserve areas under the SDG&E Subregional

35 NCCP/HCP include any land the ownership or use of which has been conveyed or dedicated to, or is

36 otherwise managed by, any entity for long term conservation. For example, dedicated conservation

37 easements owned or managed by RMV or RMV Land Trust would be considered preserve areas under the

38 SDG&E Subregional NCCP/HCP. Furthermore, the process described above provides timeframes that

- 39 may be difficult for the wildlife agencies to meet.
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41 The proposed project is considered a covered action under the SDG&E Subregional NCCP/HCP; the

42 SDG&E Subregional NCCP/HCP contains measures to coordinate with the NCCP/HCP implementing

43 entities and to provide additional mitigation in the event of permanent impacts on HCP/NCCP preserve

44 areas. Therefore, no conflicts are expected with the Orange County Southern Subregional NCCP or the

45 Camp Pendleton INRMP. As described above, SDG&E would coordinate with the appropriate authorities

- 46 during the proposed project's approval process to ensure that the impacts, mitigation measures, and 47 energy and project and project and project under the SDC %E Subracional
- 47 operational protocols are implemented for the proposed project under the SDG&E Subregional
 48 NCCP/HCP. However, the SDG&E Subregional NCCP/HCP does not specify a process for coordination

49 with all landowners, conservation easement holders, and regional plans in the proposed project area to

50 determine the locations of preserve area. Coordination is necessary to ensure that the proposed project is

51 consistent with provisions of an adopted HCP, NCCP, or other approved local, regional, or state HCP, the

1 lack of which could result in a significant conflict. MM BR-10 requires the applicant to participate in 2 further coordination with the implementing agencies. 3 4 The proposed project may conflict with two conservation easements established within the Orange 5 County Southern Subregion HCP and considered preserve areas under the SDG&E NCCP/HCP. The two 6 conservation easements in question are the Talega Conservation Easement (unrecorded) and the Prima 7 Deshecha Landfill Conservation Easement (recorded). Potential conflicts with the Talega Conservation 8 Easement cannot be determined until the easement is recorded and the applicant conducts further 9 consultation with the USFWS regarding the applicant's existing ROW, the establishment of new ROW, 10 and the potential use of ground disturbing construction techniques within the Talega Conservation Easement. Much of the proposed project in the Talega Corridor would lie within the boundaries of the 11 12 Talega Conservation Easement. 13 14 Potential conflicts with the Prima Deshecha Landfill Conservation Easement cannot be determined until 15 the construction disturbance limits of the proposed project have been delineated in relation to the 16 conservation easement boundary and the applicant's existing ROW. A small part of the proposed project 17 crosses through this easement. The CPUC is in the process of gathering additional information pertaining 18 to the boundaries and allowable uses in each easement. Based on recent discussions with the USFWS, 19 establishing new ROW or impacting areas outside of the applicant's existing ROW and within the 20 boundaries of the conservation easement(s) would conflict with both conservation easements, resulting in 21 a significant impact (Snyder 2015). 22 23 The USFWS has indicated that establishing new ROW within the Talega Conservation Easement or 24 impacting areas of the Prima Deshecha Landfill Conservation Easement that are outside of the applicant's 25 existing ROW would directly conflict with the provisions of the aforementioned conservation easement(s), and thereby the provisions of the Orange County Southern Subregion HCP. MM BR-10 26 27 would require the applicant to participate in further coordination with the implementing agencies. While 28 consultation with the USFWS may identify mechanisms for reducing potentially significant impact to less 29 than significant levels, MM BR-10 on its own is does not adequately ensure consistency with an adopted 30 HCP at this time. Measures to avoid, minimize, and mitigate potentially significant impacts to less than 31 significant levels cannot be evaluated until the Talega Conservation Easement is recorded and additional 32 consultation between the applicant and the wildlife agencies occurs. Therefore, impacts under this 33 criterion are being treated as significant and unavoidable until additional information is gathered. With 34 the implementation of the SDG&E Subregional NCCP/HCP and MM BR-10, any potentially significant 35 impacts on the provisions of an adopted HCP, NCCP, or other approved local, regional, or state HCP will 36 be reduced to a less-than-significant level. 37 38 4.4.4 Mitigation Measures

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40 MM BR-1: Limit Construction to Designated Areas and Protect Riparian, Aquatic, and Wetland

41 Areas. In all project locations, vehicular traffic (including movement of all equipment) will be restricted

42 to established construction areas indicated by flagging and signage. CPUC notification and approval will 43 be required for any additional disturbance areas already identified and evaluated for the project pursuant

- 44 to CEOA. Sensitive resources such as waterbodies, oak trees, special status plant populations, and natural
- 45 communities will be clearly marked.
- 46

47 All aquatic features, including vegetated washes, creeks, drainages (ephemeral and perennial), and

- 48 riparian areas will be spanned by the 230-kV transmission and 12-kV distribution line where possible. If
- 49 construction will occur within 200 feet of an aquatic feature, biological monitors will establish and
- 50 maintain a minimum exclusionary buffer of 50 feet from the delineated extent of all jurisdictional wetland

features. If the applicant cannot maintain the 50-foot exclusionary buffer, the applicant will submit best
 management practices (BMPs) to the CPUC for review and approval prior to construction.

4 If nighttime lighting is necessary adjacent to aquatic areas, lighting shall be shielded away from these 5 areas to prevent impacts on aquatic wildlife.

6 7 MM BR-2: Biological Monitoring, CPUC-approved, qualified biological monitors will be present 8 during construction and restoration activities in areas where sensitive resources identified by a CPUC-9 approved biologist may be impacted by construction of the project. Biological monitors will be assigned 10 to the project in areas of sensitive biological resources. The monitors will be responsible for ensuring that 11 impacts on special status species, native vegetation, wildlife habitat, or unique resources will be avoided 12 to the fullest extent possible. Where appropriate, monitors will flag the boundaries of areas where 13 activities will need to be restricted in order to protect native plants and wildlife or special status species. 14 Those restricted areas will be monitored to ensure their protection during construction.

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16 **MM BR-3: Preconstruction Surveys.** Preconstruction surveys will be conducted by CPUC-approved, 17 qualified biologists according to standardized methods, or for species for which protocols exist as 18 outlined in the most current protocols available. Surveys will encompass all construction areas. As part of 19 preconstruction surveys, the composition of the vegetation community will be surveyed to establish 20 baseline conditions prior to disturbance, which could later be used during post-construction restoration 21 efforts as outlined in Section 7 of the SDG&E Subregional NCCP/HCP. The surveys will be conducted 22 for the presence of aquatic features, special status plants, noxious weeds, and all wildlife species to 23 prevent direct loss of vegetation and wildlife and the spread of noxious plant species. Preconstruction 24 surveys will take place for each discrete work area within 14 days of the start of ground disturbance, or if 25 work has lapsed for longer than 14 days. 26

Additionally, a CPUC-approved, qualified biologist will conduct preconstruction clearance sweeps for
 special status species at all access, staging, and work areas where suitable habitat is present within
 approximately 24 hours of construction and restoration activities each day.

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If a special status species is found at any time, the CPUC will be notified within 48 hours, and the CPUC
 will determine the need for additional consultation with the appropriate resource agency or agencies.

34 MM BR-4: Limit Removal of Native Vegetation Communities and Trees. The removal of native 35 vegetation and trees will be limited to the minimum practicable area required for construction of the 36 project. Grading, grubbing, graveling, or paving will only occur for permanent project components. 37 Temporary staging areas will be used in such a way that it facilitates post-construction restoration, per 38 Section 7 of the SDG&E Subregional NCCP/HCP. Drive-and-crush methods will be employed. 39

40 MM BR- 5: Avian Safe Building Standards. The applicant will design all transmission structures
 41 installed as part of the proposed project to be consistent with the Suggested Practices for Raptor
 42 Protection on Power Lines: The State of the Art in 2006 (APLIC 2006).

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44 MM BR-6: Migratory Birds and Raptors Impact Reduction Measures. The applicant will develop a
 45 Nesting Bird Management Plan in consultation with the USFWS, CDFW, and CPUC that outlines

45 Protective measures and BMPs that will be employed to prevent disturbance to active nests of both special

47 status and Migratory Bird Treaty Act (MBTA)-protected bird species with the potential to occur in the

48 project area. The Nesting Bird Management Plan will include the following components:

- 1 Appropriate survey timing, extents, and methods, including dates of local breeding season when 2 surveys must take place; monitoring and reporting protocols; protocol for determining whether a 3 nest is active; and protocol for documenting, reporting, and protecting active nests within 4 construction and restoration areas will be included in the Nesting Bird Management Plan. If 5 preconstruction survey protocols exist for a certain species, the plan will outline the 6 implementation of these protocols. The survey area will include the construction area, plus an 7 additional distance large enough to accommodate the protective buffer of bird species likely to 8 occur in proximity to the construction area. The Nesting Bird Management Plan will specify that 9 active bird nests will not be removed during breeding season unless the project is expressly 10 permitted to do so by the USFWS or CDFW. The plan will also specify approved nest deterrent 11 methods, inactive nest management, and project-related nest failures will be reported to the 12 USFWS and CDFW.
- 13 Appropriate and effective buffer distances, including horizontal buffers from nests, horizontal • 14 buffers from territories, if appropriate, and vertical buffers for helicopters will be included. 15 Buffers will not be based on generalized assumptions regarding all nesting birds, but will be 16 specific to the site and species/guild and account for specific stage of nesting cycle and 17 construction work type. During construction and restoration, a CPUC-approved avian biologist 18 will implement the appropriate buffer distance in accordance with the plan, and a process for a 19 reduction from the plan's nesting buffer distances will be specified. Buffer reductions for special 20 status species and raptors must be approved by appropriate wildlife agencies and the CPUC. 21 Buffer reductions for common species must be approved by the CPUC.
 - The Nesting Bird Management Plan will include the minimum requirements to become a CPUCapproved avian biologist and biological monitor for nesting birds, including education, experience in conducting biological surveys, and experience with specific birds in the project area.
- The CPUC-approved biological monitor will halt work if it is determined that active nesting will
 be disturbed by construction or restoration activities until further direction or approval to work is
 obtained from the CPUC and/or appropriate wildlife agencies.

The Nesting Bird Management Plan will be submitted to the USFWS, CDFW, and CPUC for comment and approval no more than six months prior to the start of construction, with the intent that the plan will be finalized no more than two months prior to the start of construction. The final plan will be implemented during construction and restoration activities.

35 MM BR-7: Coastal Cactus Wren Avoidance.

- a. Preconstruction Surveys. CPUC-approved biologists will perform preconstruction surveys in
 potential coastal cactus wren habitat and record the location and quality. Preconstruction surveys
 will take place within two weeks prior to the start of ground disturbance or when work has lapsed
 for longer than two weeks.
- 40 b. Conservation. Should suitable coastal cactus wren habitat patches be identified in or within 200 41 feet of proposed work areas, they will be avoided to the greatest extent possible during 42 construction. Habitat includes, but is not limited to, mature cholla or prickly-pear cactus typically 43 less than 1 meter in height, interspersed with California sagebrush, California buckwheat, and 44 blue elderberry. Habitat patches may be as small as approximately 1 acre. Habitat patches located 45 in close proximity to construction activities should be protected by physical barriers, such as rope 46 or signage. If habitat patches cannot be avoided, the applicant shall consult with the CDFW to 47 determine appropriate mitigation, restoration, and/or compensation measures.

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c. **Take Avoidance.** Take of coastal cactus wrens is prohibited except in emergency situations. Should biologists identify nesting coastal cactus wrens at any time during construction, biologists will erect a buffer around the nest that sufficiently protects the nesting pair from disturbance caused by construction activities, as determined by the project-specific Nesting Bird Management Plan. The nest should be monitored regularly according to methods outlined in the Nesting Bird Management Plan and the buffer must remain in place until the nest fledges or fails. Should take be unavoidable in the event of an emergency, the applicant shall consult with CDFW to determine appropriate mitigation, restoration, and/or compensation measures.

10 MM BR-8: Western Burrowing Owl Impacts Reduction Measures.

- a. **Preconstruction Surveys for Burrowing Owls**. Prior to ground disturbance, a CPUC-approved biologist will conduct preconstruction take-avoidance surveys for burrowing owls within 150 meters of project areas in suitable habitat no more than 14 days prior to ground-disturbing activities according to methods outlined in the CDFW's 2012 (or most recent) *Staff Report on Burrowing Owl Mitigation* (CDFG 2012). Surveys will provide data on whether burrowing owls occupy the site and, if so, whether the owls are actively nesting.
- b. Burrowing Owl Impact Avoidance. If pre-construction take-avoidance surveys reveal the
 presence of any active burrowing owl burrows during breeding season, the burrows will be
 flagged and buffered. Buffer sizes are outlined in the CDFW's *Staff Report on Burrowing Owl Mitigation*. Active burrowing owl burrows should be monitored regularly according to methods
 outlined in the Nesting Bird Management Plan, and buffers should remain in place until the nest
 fledges or fails.
- 23 c. **Passive Eviction.** Passive eviction and burrow closure are not recommended when this practice 24 can be avoided. However, if passive eviction is required, it will occur according to CDFW's 2012 25 Staff Report on Burrowing Owl Mitigation. Owls may not be evicted until a Burrowing Owl 26 Exclusion Plan is developed and approved by CDFW and CPUC; permanent loss of occupied 27 burrows and habitat is mitigated in accordance with the CDFW 2012 document; monitoring is 28 conducted to ensure take is avoided during eviction procedures; and excluded owls are 29 documented using new burrows (if this can be confirmed). Owls may not be actively evicted 30 (e.g., captured) without prior authorization from the CDFW and CPUC.
- 31 d. Burrowing Owl Habitat Mitigation. Should impacts on active burrowing owl burrows be 32 unavoidable, the applicant shall consult with the CDFW and CPUC and submit a Burrowing Owl 33 Compensation Plan that is consistent with mitigation guidelines, as outlined in the Staff Report on 34 Burrowing Owl Mitigation prior to construction. This plan shall be approved by the CDFW and 35 CPUC and implemented, as specified, throughout construction and restoration. The plan will 36 describe the compensatory measures that will be undertaken to address the loss of burrowing owl 37 burrows within the project area. This will include mitigation for permanent impacts on nesting, 38 occupied and satellite burrows, and occupied burrowing owl habitat.
- Mitigation Measure BR-9: Invasive Plant Control Measures. The applicant will use standard BMPs to
 avoid the introduction and spread of controllable invasive plant species such as tamarisk (*Tamarix* sp.)
 and giant reed (*Arundo donax*) during construction of the project. Proper handling during construction
 will include the following:
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- All vehicles and equipment will be cleaned prior to arrival at the work site.
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 Crews, with construction inspector oversight, will ensure that vehicles and equipment are free of soil and debris capable of transporting noxious weed seeds, roots or rhizomes before the vehicles and equipment are allowed use of access roads.

• Straw or hay bales used for sediment barrier installations or mulch distribution will be obtained from state-cleared sources that are free of invasive weeds.

The applicant will develop an Invasive Plant Management Plan to outline the methods that will be employed to prevent the spread of invasive plants onsite. This plan will be submitted to the CDFW and CPUC for review and comment no more than six months prior to the start of construction, with the intent to produce a final draft of the plan no later than two months prior to the start of construction.

9 Mitigation Measure BR-10: Mitigation Plan Development. In order to prevent potential conflicts
 10 between the SDG&E Subregional NCCP/HCP and other conservation plans and land, the applicant will
 11 prepare a mitigation plan for the project.

- The plan will include a summary of the policies and procedures in the SDG&E Subregional
 NCCP/HCP that are relevant to other HCPs/NCCPs, conservation plans, and public or private
 conservation or preserve areas, including but not limited to:
- 16 Operational protocols used in sensitive habitat areas;
- Mitigation for temporary and permanent impacts, including habitat enhancement and mitigation credits;
- 19 Coordination and consultation procedures with the USFWS and CDFW;
- 20 Definition of preserve area according to the SDG&E Subregional NCCP/HCP;
 - Identification and mapping of areas that may qualify as a preserve area within 100 feet of any project component; and
 - A review of locations where there may be potential conflicts among conservation plans.
- In order to prevent potential conflicts, SDG&E will coordinate with all relevant jurisdictions, plan participants, and landholders associated with the preserve areas crossed by the project, including but not limited to the City of San Juan Capistrano, City of San Clemente, County of Orange, California Department of Parks and Recreation, Marine Corps Base (MCB) Camp Pendleton, CDFW, and USFWS.
- The plan will outline how SDG&E will communicate with the relevant jurisdictions, plan
 participants, and landholders about the project activities in preserve areas. A process for resolving
 inconsistencies between SDG&E's transmission and distribution activities in a preserve area and
 the mission of the overlapping jurisdiction, conservation plan, or easement will be outlined.
- This plan will be submitted to the USFWS, CDFW, and CPUC for review and comment no more
 than six months prior to the start of construction, with the intent to produce a final draft of the
 plan, approved by the CPUC, no later than two months prior to the start of construction.

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4.5 Cultural Resources

2 3 This section describes the environmental and regulatory settings and discusses impacts associated with 4 construction and operation of the South Orange County Reliability Enhancement Project (proposed 5 project) with respect to cultural and paleontological resources. During scoping, the following issues were 6 raised and are addressed in this section: the need to conduct a Sacred File Land search and early 7 consultation with Native American tribes; the need to conduct a cultural historic record inventory search 8 for the proposed project's area of potential effect; the cultural significance of the existing 1918-9 constructed building that fronts on Camino Capistrano; and the need to analyze impacts on archeological, 10 historical, and Native American resources within the proposed project area.

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12 For the purpose of analysis in this section, the term "cultural resources" encompasses historical resources;

- 13 archeological resources (which may be historic or prehistoric, and are a subset of historical resources);
- 14 Native American resources; and paleontological resources. The Cultural Resources Technical Report and
- 15 supplemental survey information prepared by San Diego Gas & Electric Company (SDG&E, or "the 16 applicant") are included in Appendix M.
- 16 a 17

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18 Key cultural and paleontological resources terms used in this section are defined below.

20 Historical Resources

21 Historical resources, as defined by the California Environmental Quality Act (CEQA), are resources that

22 are listed in, or are determined to be eligible for listing in, the California Register of Historical Resources

23 (CRHR) or a local register, or that are otherwise determined to be historical pursuant to the CEQA Statute

or Guidelines (Public Resources Code [PRC] Section 21084.1 or California Code of Regulations [CCR]

25 Section 15064.5). A historical resource may be any object, building, structure, site, area, place, record, or

26 manuscript that a lead agency determines to be historically significant or significant in terms of

27 California's architectural, engineering, scientific, economic, agricultural, educational, social, political,

28 military, or cultural records. Typically, historical resources are more than 50 years old.

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30 Archaeological Resources

31 As stated above, archaeological resources are a subset of the historical resources category. Archaeological

32 sites may be considered historical resources. If not, archaeological resources may be determined to be

33 "unique" as defined by the CEQA Statute (Section 21083.2). A unique archaeological resource is an

34 artifact, object, or site that: (1) contains information (for which there is a demonstrable public interest)

needed to answer important scientific research questions; (2) has a special and particular quality, such as

36 being the oldest of its type or the best available example of its type; or (3) is directly associated with a

37 scientifically recognized important prehistoric or historic event or person. Non-unique archaeological

38 resources are not typically addressed in Environmental Impact Reports (EIRs).

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40 Native American Resources

41 Native American resources are cultural resources such as archaeological resources, rock art, and the

42 prominent topographical areas, features, habitats, plants, animals, or minerals that contemporary Native

43 Americans value and consider essential for the preservation of their traditions. Traditional culture often

44 prohibits Native Americans from sharing the locations of these cultural resources with the public.

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46 Paleontological Resources

For the purpose of this EIR, "paleontological resources" refers to the fossilized plant and animal remains
of prehistoric species. They are valued for the information they yield about the history of the earth and its

past ecological settings. Paleontological resources represent a limited, non-renewable, impact-sensitive,
 scientific, and educational resource. Fossil remains such as bones, teeth, shells, and leaves are found in
 geologic deposits (i.e., rock formations). Paleontological resources generally include the geologic
 formations and localities in which the fossils are collected.

4.5.1 Environmental Setting

This section provides information regarding prehistory, ethnography, and history of the proposed project area, based on the cultural resources sections of the Proponent's Environmental Assessment for the proposed project (SDG&E 2012) unless otherwise cited.

4.5.1.1 Prehistoric, Ethnohistoric, and Historic Background and Search, Survey, and Consultation Results (Historic, Archaeological, and Native American Resources)

The cultural history of the proposed project area will be discussed in terms of four chronological
 divisions: Prehistory, Ethnohistory and Ethnography¹¹, and History. The time periods associated with
 these divisions are not all precisely defined.

Prehistory covers the period before the existence of written records and is known primarily through
archaeology. Prehistory begins with the first humans occupation of California more than 10,000 years
ago and continues until the time the Spanish established the mission system (1769) and began keeping
records and describing the people living in the vicinity of the missions.

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25 Ethnohistory and Ethnography deal with the period documented by historic accounts of Native peoples 26 and anthropological inquiry, focusing on indigenous people. The Ethnohistoric period extends back a few 27 centuries and ends generally in the early 20th century, although these boundaries are not firm. The 28 account of the 16th century explorers provides the first ethnohistoric information on the California 29 Indians, and this is augmented by missionaries, military, and settler records. Ethnography in California 30 began as an attempt to record Native American lifestyles that anthropologists perceived to be rapidly 31 disappearing. As part of this effort, anthropologists in the late 19th and early 20th centuries investigated 32 people with memories of life before the missions and EuroAmerican settlement.

33

History is characterized as the period for which written records are readily available. The Historic periodin California is defined as beginning in 1769 and extending to the present.

3637 Prehistory

- Although archaeologists have uncovered a great deal of evidence indicating human occupation of the west coast of North America as early as 14,000 years ago, the earliest widely accepted archaeological materials in mainland Southern California are the San Dieguito/Lake Mojave complexes, dating to around 10,000 years ago (Warren 1967; Sutton et al. 2007). San Dieguito/Lake Mojave sites yield an artifact assemblage that includes a variety of scrapers, as well as stemmed points and flaked crescent-shaped artifacts called "crescentics." Archaeologists interpret these sites as remains left by people who depended primarily on
- 44 hunting.
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¹¹ Ethnohistory uses both historical and ethnographic data as its foundation. Its historical methods and materials go beyond the standard use of books and manuscripts. Practitioners recognize the utility of maps, music, paintings, photography, folklore, oral tradition, ecology, site exploration, archaeological materials, museum collections, enduring customs, language, and place names. (American Society for Ethnohistory 2011)

- 1 About 8,000 years ago, people appear to have begun changing their adaptation. Sites of this period yield
- 2 fewer projectile points, scrapers, and choppers, and more ground stone implements (milling bases or
- 3 "metates" and handstones or "manos") associated with processing seeds and other vegetable foods.
- 4 Archaeologists interpret this as evidence of increasing dependence on plant resources and decreasing
- 5 dependence on hunting; based on the abundance of such implements, this period is often referred to as the
- 6 Millingstone Horizon, dated between 8,000 and 3,000 years ago.
- 8 During the Intermediate Horizon (3,000 to 1,250 years ago) mortars and pestles (pounding tools) were
- 9 used rather than grinding tools like the metates and manos. Archaeologists have interpreted the mortars
- 10 and pestles as evidence of acorn processing and as a sign of an increase in a sedentary lifestyle.
- 11 Intermediate Horizon sites also yield large stemmed or notched projectile points.
- 12

The Late Prehistoric Horizon is marked by sites that yield small triangular projectile points suitable for
use with the bow and arrow about 1,250 years ago.

16 **Ethnography and Ethnohistory**

17 The proposed project would be located in an area known ethnographically to have been occupied by the

18 Juaneño (now known as the Acjachemen) when the Spanish arrived in 1769. The Juaneño/Acjachemen

19 were semi-sedentary hunters and gatherers. One of the most important food resources for the group was

acorns gathered from oak groves in canyons, drainages, and foothills. Acorns were ground into flour

21 using mortars and pestles. Protein was supplemented through the meat of deer, rabbits, and other animals,

hunted with a bow and arrow or trapped. Shellfish were collected and eaten, and some of the shell was

- then used to make hooks for fishing, beads, and other ornaments.
- 24

The Juaneño/Acjachemen lived in villages of up to 250 people located near permanent water and a variety of food sources. The San Juan Basin was densely populated, and villages were closely spaced because of

the year-round availability of fresh water in San Juan Creek. Each village was typically located in the

center of an established area from which resources for the group were gathered. Subsequently, small

29 groups would leave the village for a short time to hunt, fish, or gather plant materials.

3031 History

32 The first Europeans to explore future California were part of the 1542 expedition of Juan Rodriguez

33 Cabrillo. Orange County is thought to have been first visited in 1769 by Gaspar de Portola, as he led a 62-

34 person expedition from San Diego to Monterey. Shortly after this visit, the seventh Franciscan mission in

35 California was founded in 1776, the Mission San Juan Capistrano.

36

37 After an initial period of exploration, the Spanish concentrated on the founding of presidios, missions,

and secular towns with the land held by the Crown (1769–1821). In contrast, the later Mexican policy

39 stressed individual ownership of the land. In 1821, Mexico declared independence from Spain and within

40 12 years began closing the missions. Former mission lands were granted to soldiers, other Mexican

- 41 citizens, and a few wealthy foreigners. In 1841, the former mission became a Mexican pueblo named San
- 42 Juan Capistrano.43
- 44 The signing of the Treaty of Guadalupe Hidalgo in 1848 ended the Mexican-American War, and
- 45 California became a territory of the United States. California became the 31st state in 1850, primarily due
- to the gold rush. The 1860s and 1870s saw an increase in farmers and merchants in the area. In March

47 1889, the County of Orange was created, occupying 780 square miles.

- 48
- Orange County remained primarily agricultural through most of the 20th century. The early 20th century
 came with advanced technology, including utility distribution companies, such as water, electricity, and

telephone, and paved streets. Interstate 5 was completed in the 1950s and connected many Orange County
 communities with Los Angeles. By the 1980s, the county was developed with numerous master planned
 communities.

4

5 Cultural Resources Literature and Records Searches

6 Record searches for the area surrounding the proposed project were conducted by TRC Solutions, Inc. 7 (TRC) at the South Coastal Information Center for San Diego County on February 29, 2012, and at the 8 South Central Coastal Information Center for Orange County on March 5, 2008, and July 3, 2012. These 9 searches included the area of the proposed double-circuit 230-kilovolt (kV) transmission line, the 10 proposed San Juan Capistrano Substation, and the Talega Substation, herein referred to as the "searched 11 area." The purpose of the record searches was to determine the extent of previous investigations within 12 one quarter-mile of the searched area and whether previously documented prehistoric or historic 13 archaeological sites, isolated findings, architectural resources, cultural landscapes, or ethnic resources 14 exist within the project area. The reviewed documentation included survey and evaluation reports. 15 archaeological site records, historic maps, the California Points of Historical Interest, the California 16 Historical Landmarks, the CRHR, the National Register of Historic Places (NRHP), and the California 17 State Historic Resources Inventory listings. The record searches included the records available through 18 the City of San Juan Capistrano, the Orange County Assessor/Recorder's data, Sanborn Fire Insurance 19 Maps and other historic maps, and historic background data provided through the San Diego Historical 20 Society, and the City of San Juan Capistrano history files (on-line data). 21

22 There have been 101 cultural resource studies conducted within a quarter-mile radius of the searched area.

23 Of these, 41 of the previously conducted cultural resource studies had survey areas that overlap the

24 searched area. A total of 48 cultural resources have been identified within a quarter-mile radius of the

25 searched area. Thirteen cultural resources are located within the searched area, as detailed in Table 4.5-1.

26

Table 4.5-1 Previously Discovered Cultural Resources within the Surveyed Area

	ľ	Primary		
Segment	Trinomial	Number	Brief Description	Туре
Transmission Line Segment 4;	CA-ORA-362	30-000362	Dense lithic scatter ¹	Prehistoric
Talega Substation				
Transmission Line Segment 4	CA-ORA-363	30-000363	Lithic scatter with groundstone	Prehistoric
Transmission Line Segment 3	CA-ORA-640	30-000640	Light lithic scatter	Prehistoric
Transmission Line Segment 3	CA-ORA-700	30-000700	Sparse flake and groundstone scatter	Prehistoric
Transmission Line Segment 3	CA-ORA-779	30-000779	Minimal lithic scatter	Prehistoric
Transmission Line Segment 3	CA-ORA-780	30-000780	Isolated Mortar	Prehistoric
Transmission Line Segment 3	CA-ORA-781	30-000781	Isolate-core	Prehistoric
Transmission Line Segment 3	CA-ORA-909	30-000909	Small lithic scatter with groundstone	Prehistoric
Transmission Line Segment 3	CA-ORA-1162	30-001162	Lithic scatter-basalt flakes	Prehistoric
Transmission Line Segment 3	CA-ORA-072	30-100072	Isolated felsites flake	Prehistoric
Transmission Line Segment 1a	-	30-176663/	BNSF Railroad	Historic
_		19-186804		
Transmission Line Segment 1a	-	30-176664	Metrolink Railroad, BNSF	Historic
Capistrano Substation	_	30-179873	1917-1918 SDG&E building	Historic

Key:

BNSF = Burlington Northern Santa Fe Railway

SDG&E = San Diego Gas & Electric Company

Note:

¹ Lithic scatter refers to a surface scatter of cultural artifacts and debris that consists entirely of stone items, stone tools, and chipped stone debris.

1 **Cultural Field Surveys**

2 Surveys of the proposed project's double-circuit 230-kV transmission line, the San Juan Capistrano

3 Substation, and Talega Substation, herein referred to as the "surveyed area," were performed by TRC

4 archaeologists on March 12, March 19, and 21, 2008, and additional field visits and/or surveys occurred

5 on September 29 and 30, October 11 and 12, and December 28 and 29, 2011; February 28, 2012; and 6 March 15, 2012. TRC archaeologists conducted the surveys by walking transects spaced approximately 5

7 to 15 meters apart, as appropriate and whenever possible. In areas where vegetation was thick,

8 meandering transects were utilized to enable observation of as much of the cleared areas as possible. In

9 the steeper portions, the areas most likely to have occupation (i.e., ridge tops) were examined. All areas

10 with exposed boulders were checked for milling features. A high-precision Trimble unit and a digital

- 11 camera were available to record the location of any cultural material observed.
- 12

13 No new cultural resources were located during any of the cultural resource surveys. Most of the new pole

14 locations and access roads had good ground visibility. Many of the areas surveyed have been previously

15 disturbed. TRC attempted to find each of the 13 previously documented cultural resource sites within the

16 searched area found by the literature and records search. None of the previously recorded prehistoric

- 17 cultural resources within the proposed project area were relocated during any of the field surveys. All
- 18 three historic sites—30-176663, 30-176664, and 30-179873—were found to be the same as they appeared
- 19 on the site records from the information center. 20

21 **Historical Assessments**

22 As discussed further in Section 4.5.2.3, the historic site 30-179873, the 1918-constructed building that

fronts Camino Capistrano,¹² herein referred to as "the former utility structure," is not listed on the City of 23

24 San Juan Capistrano's Inventory of Historical and Cultural Landmarks and is not located within the

25 boundaries of the City of San Juan Capistrano's Historic Town Center or Historic Town Center study

26 area, but is included in the City of San Juan Capistrano's Buildings of Distinction (BOD) list (City of San

27 Juan Capistrano 2007a,b; 2010). The BOD list includes "structures and sites which are potentially eligible 28 for inclusion on the City's IHCL [Inventory of Historical and Cultural Landmarks] when they meet all

- 29 listing criteria and/or have property owner concurrence to the inventory" (City of San Juan Capistrano
- 30 2007b).
- 31

32 In 2008, the applicant hired a qualified archaeologist to conduct a historic assessment of the former utility 33 structure to determine its eligibility for NRHP listing. The 2008 assessment determined that the former 34 utility structure lacks the integrity required to meet the minimum eligibility criteria for a historic resource

- 35 at the state or federal level and does not meet the definition of a "historical resource" under CEQA
- 36 (McKenna et al. 2008; Appendix M-1). In 2013, the applicant retained ASM Affiliates to review the 2008

37 evaluation and to provide a second opinion regarding the former utility structure's eligibility for NRHP.

38 ASM Affiliates concurred with the conclusion of the 2008 report that the former utility structure was 39

- ineligible due to loss of integrity (TRC 2013; Appendix M-2).
- 40

41 In 2014, the California Public Utilities Commission (CPUC) hired a qualified historian to conduct a

42 historic assessment of the former utility structure to provide an independent opinion of its eligibility for

43 NRHP listing. The 2014 report concluded, as did the 2008 and 2013 historic assessments, that the former

44 utility structure does not meet the minimum eligibility criteria for a historic resource at the state or federal

- 45 level and does not meet the definition of a "historical resource" under CEQA (Moomjian 2014; Appendix
- 46 M-3).
- 47

¹² Some City of San Juan Capistrano documentation refers to this building as the "Capistrano Substation."

- 1 On April 29, 2015, the State Historic Resources Commission (SHRC) held its quarterly commission
- 2 meeting in San Diego. The nomination of the former utility structure was on the agenda. Office of
- 3 <u>Historic Preservation staff presented the nomination to the six SHRC members, followed by a</u>
- 4 presentation by the nominator, Ilse Burns. SDG&E and SCE objected to the proposed nomination,
- 5 commenting that the building lacks sufficient integrity, and it was once part of an integral complex that is
- 6 <u>no longer extant. SDG&E pointed out that three qualified consultants (including a third party consultant</u>
- 7 from the CPUC) did not find the building eligible. The SHRC voted unanimously in favor of
- 8 recommending the building as eligible for the NHRP. The recommendation was forwarded to the Keeper
 9 of the NRHP on July 17, 2015.
- 10

11 Native American Consultation

- 12 The applicant submitted a request for information in the Sacred Lands file database to the Native
- 13 American Heritage Commission (NAHC) on January 18, 2012, for the searched area. The applicant also
- 14 requested a list of interested Native American tribal groups and individuals for the searched area. The
- 15 NAHC responded on January 18, 2012, and indicated that there are cultural resources recorded in the
- 16 NAHC Sacred Lands file for the San Juan Capistrano, Cañada Gobernadora, and the San Clemente
- 17 United States Geological Survey (USGS) quadrangle maps. There are no recorded cultural resources in
- 18 the NAHC Sacred lands file within the Dana Point USGS quadrangle map. The NAHC also enclosed a
- 19 list of Native American individuals and/or organizations that might have further knowledge of cultural
- 20 resources in or near the searched area.
- 21
- 22 On January 20, 2012, TRC sent letters and emails to all the individuals and organizations on the list
- 23 provided by the NAHC. Mr. Andrew Salas, Chairperson for the Gabrieliño Band of Mission Indians
- responded via email on January 25, 2012. Mr. Salas identified the proposed project as being located in
- 25 San Juan Capistrano Indians Juaneño Band of Mission Indians territory. On January 26, 2012, Ms. Perry
- 26 Cultural Resources Coordinator for the Juaneño Band of Mission Indians Acjachemen Nation, responded
- via telephone and requested a meeting with SDG&E and TRC. On March 19, 2012, Ms. Joyce Perry and
- 28 Mr. David Belardes (Chairperson for the Juaneño Band of Mission Indians Acjachemen Nation) met with
- 29 the TRC archaeologist, as well as SDG&E personnel, to view larger scale maps of the proposed project,
- to discuss the proposed project in more detail, and to express any areas of concern. On March 29, 2012, Ma Perry cont on amoil to SDC %E requesting archaeolagical and Native American manifestory for
- 31 Ms. Perry sent an email to SDG&E requesting archaeological and Native American monitors for most of 32 the site locations and to be informed of the project's progress
- the site locations and to be informed of the project's progress.

34 4.5.1.2 Paleontology Background and Records Search Results 35

- 36 The applicant submitted a request for a records search at the Vertebrate Paleontology Section of the 37 Natural History Museum of Los Angeles County for the proposed project area. The search results found
- no previously recorded vertebrate paleontological sites within the searched area. However, the search did
- identify vertebrate paleontological resources in similar rock units in the vicinity of the proposed project.
- 40 Table 4.5-2 details the paleontological sensitivity of the geologic units with potential to contain
- 41 paleontological resources in the proposed project area.
- 42

 Table 4.5-2
 Geologic Units and Paleontological Sensitivity within the Project

 Area
 Area

7.1.04				
				Resource
Segment	Geologic Unit	Age	Typical Fossil Types	Potential
Transmission Line Segment 4 ;	Santiago Formation (Tsa)	> 45 mya	Vertebrates and Invertebrates	High
Transmission Line Segment 3	Monterey Formation (Tm)	12 to 14 mva	Vertebrates	Hiah
Transmission Line Segments 1,2, 3	Capistrano Formation-Siltstone Member (Tcs)	6 to 9 mya	Vertebrates and Invertebrates	High
Transmission Line Segment 1	Terrace Deposits (Qt)	> 32,600	Non-marine Vertebrates	Low
		years ago		
Transmission Line Segments 1,3	Quaternary alluvium (Qac)	< 2.5 mya	Vertebrates	Low

Key:

mya = Millions of years ago

4.5.2 Regulatory Setting

4.5.2.1 Federal

6 National Historic Preservation Act of 1966

7 Enacted in 1966, the National Historic Preservation Act (NHPA) declared a national policy of historic 8 preservation and instituted a multifaceted program, administered by the Secretary of the Interior, to 9 encourage the achievement of preservation goals at the federal, state, and local levels. The NHPA 10 authorized the expansion and maintenance of the NRHP, established the position of State Historic 11 Preservation Officer, and provided for the designation of State Review Boards, set up a mechanism to 12 certify local governments to carry out the purposes of the NHPA, assisted Native American tribes to 13 preserve their cultural heritage, and created the Advisory Council on Historic Preservation (ACHP). 14 Section 106 of the NHPA states that federal agencies with direct or indirect jurisdiction over federally 15 funded, assisted, or licensed undertakings must take into account the effect of the undertaking on any 16 historic property that is included in, or eligible for inclusion in, the NRHP and that the ACHP must be 17 afforded an opportunity to comment, through a process outlined in the ACHP regulations at 36 Code of 18 Federal Regulations (CFR) Part 800, on such undertakings. 19

20 National Register of Historic Places

21 As presented in 36 CFR 60.2, the NRHP was established by the NHPA of 1966 as "an authoritative guide 22 to be used by federal, state, and local governments, private groups, and citizens to identify the Nation's 23 cultural resources and to indicate what properties should be considered for protection from destruction or 24 impairment." The NRHP recognizes properties that are significant at the national, state, and local levels. 25 To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, 26 archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential 27 significance must also possess integrity of location, design, setting, materials, workmanship, feeling, and 28 association. A property is eligible for the NRHP if it is significant under one or more of the following 29 criteria:

30 31

32

33

• *Criterion A*: It is associated with events that have made a significant contribution to the broad patterns of our history.

• *Criterion B*: It is associated with the lives of persons who are significant in our past.
- **Criterion C**: It embodies the distinctive characteristics of a type, period, or method of construction; represents the work of a master; possesses high artistic values; or represents a significant and distinguishable entity whose components may lack individual distinction.
- *Criterion D*: It has yielded, or may be likely to yield, information important in prehistory or history.

6 7 The following properties are not eligible for the NRHP unless they satisfy certain conditions: cemeteries, 8 birthplaces, or graves of historic figures; properties owned by religious institutions or used for religious 9 purposes; structures that have been moved from their original locations; reconstructed historic buildings; 10 and properties that are primarily commemorative in nature. In general, a resource must be at least 50 11 years of age to be considered for the NRHP, unless it satisfies a standard of exceptional importance. The 12 former utility structure in the proposed project area was found not to be eligible for the NRHP by three 13 separate consultants (McKenna et al. 2008; Appendix M-1) (TRC 2013; Appendix M-2) (Moomjian 14 2014; Appendix M-3). However, on April 29, 2015, the SHRC voted unanimously in favor of 15 recommending the building eligible for the NRHP. The recommendation was forwarded to the Keeper of 16 the NRHP on July 17, 2015. The Keeper reviews the nomination and makes a determination of eligibility 17 within 45 days of receipt of a nomination.

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19 Native American Graves Protection and Repatriation Act of 1990

20 The Native American Graves Protection and Repatriation Act of 1990 sets provisions for the intentional

21 removal and inadvertent discovery of human remains and other cultural items from federal and tribal

22 lands. It clarifies the ownership of human remains and sets forth a process for repatriation of human

remains and associated funerary objects and sacred religious objects to the Native American groups

claiming to be lineal descendants or culturally affiliated with the remains or objects. It requires any
 federally funded institution housing Native American remains or artifacts to compile an inventory of all

cultural items it contains or within its agency and to provide a summary to any Native American tribe

cultural items it contains of within its agency and to provide a summary to any Native American tribe
 claiming affiliation. This act would apply to the proposed project if human remains are discovered during
 ground disturbing activities.

29

30 **4.5.2.2 State**

31

32 California Office of Historic Preservation

33 The State of California implements the NHPA through its statewide comprehensive cultural resources

34 surveys and preservation programs. The California Office of Historic Preservation, as an office of the

35 California Department of Parks and Recreation, implements the policies of the NHPA on a statewide

36 level. The Office of Historic Preservation also maintains the California Historic Resources Inventory. The

37 State Historic Preservation Officer is an appointed official who implements historic preservation

- 38 programs within the state's jurisdictions.
- 39

40 California Register of Historical Resources

41 The CRHR is an authoritative listing and guide to be used by state and local agencies, private groups, and

42 citizens in identifying the existing historical resources of the state and to indicate which resources deserve

43 <u>potentially qualify</u> to be protected, to the extent prudent and feasible, from substantial adverse change

44 (PRC §5024.1[a]). The criteria for eligibility for listing on the CRHR are based on NRHP criteria (PRC

45 §5024.1[b]). Certain resources are determined by the statute to be automatically included in the CRHR,

including California properties formally determined eligible for, or listed in, the NRHP. <u>Therefore, the</u>
 former utility structure would automatically be included in the CRHR if the Keeper of the NRHP

- 47 <u>former utility structure would automatically be included in the CRHR if the Keeper of the NRHP</u>
 48 determines the structure to be eligible for inclusion in the NRHP following review of the nomination. The
- 40 determines the structure to be engible for inclusion in the INKHP following review of the nomination. The
 49 former utility structure was found not to be eligible for the CRHR (McKenna et al. 2008; Appendix M-1).

This criterion would <u>also</u> be used to determine if previously undiscovered resources are significant
 historical resources.

 $\frac{2}{3}$

4 **Public Resources Code Sections**

5 These codes would apply to known or previously undiscovered cultural resources that would be affected 6 by the proposed project and found to be potentially significant.

PRC 5024.1. This section defines historical resources and establishes the CRHR, sets forth criteria to
 determine resource significance, defines CRHR-eligible resources, and lists nomination procedures.

PRC 5097.5, PRC 5097.9, and PRC 30244. These sections regulate the removal of paleontological resources from state lands, define unauthorized removal of fossil resources as a misdemeanor, and require mitigation of disturbed sites, respectively.

12 13

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PRC 5097.91 through PRC 5097.991. These sections pertain to the establishment and authorities of the NAHC. They also prohibit the acquisition or possession of Native American artifacts or human remains taken from a Native American grave or cairn, except in accordance with an agreement reached with the NAHC, and provide for Native American remains and associated grave artifacts to be repatriated.

PRC 5097.98 (b) and (e). These sections require a landowner on whose property Native American
 human remains are found to limit further development activity in the vicinity until conferring with the
 most likely descendants (as identified by the NAHC) to consider treatment options.

PRC 5097.993 through PRC 5097.994. These sections establish the Native American Historic Resource
 Protection Act, which makes it a misdemeanor crime to perform unlawful and malicious excavation,
 removal, or destruction of Native American archaeological or historical sites on public or private lands.

26

PRC 6254 (r). This section establishes the California Public Records Act, which protects Native
 American graves, cemeteries, and sacred places maintained by the NAHC by protecting records of such

- American graves, cemeteries, and saresources from public disclosure.
- 30

PRC 21083.2. This section of the CEQA Statute provides for the protection of "unique" archaeological resources as defined in the statute. If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require that reasonable efforts be made to preserve in place or avoid the resources. This section also establishes mitigation requirements for the excavation (data recovery) of unique archaeological resources. See also Section 15064.5(c) of the CEQA Guidelines (14 CCR).

PRC 21084.1. This section of the CEQA Statute establishes that an adverse effect on a historical resource
 qualifies as a significant effect on the environment. See also Sections 15064.5 and 15126.4(b) of the
 CEQA Guidelines (14 CCR).

41

42 PRC 65092. This section provides for notice of projects in consideration for construction to be sent to
 43 California Native American tribes who are on the contact list maintained by the NAHC.
 44

45 California Code of Regulations Sections

46 These codes would apply to known or previously undiscovered cultural resources that would be affected 47 by the proposed project and found to be potentially significant.

48

49 14 CCR 1427. This code recognizes that California's archaeological resources are endangered by urban 50 development and population growth and by natural forces. It declares that these resources need to be preserved in order to illuminate and increase public knowledge of the historic and prehistoric past of
 California.

4 14 CCR 4307. This code states that no person shall remove, injure, deface, or destroy any object of
 5 paleontological, archaeological, or historical interest or value.

6 7 14 CCR 15064.5. This section of the CEOA Guidelines recognizes that a historical resource includes: (1) 8 a resource listed in, or determined to be eligible by, the State Historical Resources Commission for listing 9 in the CRHR; (2) a resource included in a local register of historical resources; and (3) any object, 10 building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically 11 significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, 12 social, political, military, or cultural annals of California by the lead agency, provided the lead agency's 13 determination is supported by substantial evidence in light of the whole record. In some cases, an 14 archaeological resource may be considered a historical resource.

15

21

16 14 CCR 15064.5(c). If an archaeological resource does not meet the criteria for a historical resource 17 contained in the CEQA Guidelines Section 15064.5, it may be treated in accordance with the provisions 18 of PRC Section 21083.2 if it is a "unique" archaeological resource. If an archaeological resource is 19 neither unique nor historical, effects of the proposed project on the resource would not be considered 20 significant.

14 CCR 15126.4(b). This section of the CEQA Guidelines establishes mitigation guidelines for effects on
 historical resources and historical resources of an archaeological nature.

25 California Health and Safety Code (HSC)

These codes would apply to the proposed project in the event that human remains are discovered duringground disturbing activities.

HSC 7050 through HSC 7054. These sections are statutes that pertain to disturbance and removal of
 human remains, felony offenses related to human remains, and depositing human remains outside of a
 cemetery.

HSC 8010 through HSC 8011. These HSC sections establish the California Native American Graves
 Protection and Repatriation Act, which is consistent with and facilitates implementation of the federal
 Native American Graves Protection and Repatriation Act.

37 Senate Concurrent Resolutions

These resolutions would apply to known or previously undiscovered cultural resources found to besignificant that would be affected by the proposed project.

Number 43. This resolution requires all state agencies to cooperate with programs of archaeological
 survey and excavation and to preserve known archaeological resources whenever it is reasonable to do so.

42

36

Number 87. This resolution provides for the identification and protection of traditional Native American
 resource-gathering sites on state land.

46 **Penal Code Section 622 (Destruction of Sites)**

47 This code establishes as a misdemeanor the willful injury, disfiguration, defacement, or destruction of any

48 object or thing of archaeological or historical interest or value, whether situated on private or public lands.

This code would apply to known or previously undiscovered cultural resources that would be affected by the proposed project and found to be potentially significant.

4.5.2.3 Regional and Local

5 6 Orange County

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7 The Resource Element of the Orange County General Plan describes the cultural, historic, and
8 paleontological history and sensitivity in the County. The Resources Element includes the following goal
9 and policies that deal with management of cultural, historic, and paleontological resources:

- **Goal 2:** To encourage through a resource management effort the preservation of the County's cultural and historic heritage.
- Archaeological Resources Policy 1: To identify archaeological, paleontological, and historic resources through literature and records research and/or surface or on-site surveys.
- Archaeological Resources Policy 2: To evaluate archeological resources through subsurface testing to determine significance and extent, to evaluate historic resources through comparative analysis or through subsurface or materials testing.
- Archaeological Resources Policy 3: To observe and collect archaeological resources during the grading of a project; to monitor and salvage paleontological resources during the grading of a project.
- Archaeological Resources Policy 4: To preserve archaeological resources by: a) maintaining
 them in an undisturbed condition; or b) excavating and salvaging materials and information in a
 scientific manner.
- Paleontological Resources Policy 1: To identify paleontological resources through literature and records research and surface surveys.
- Paleontological Resources Policy 2: To monitor and salvage paleontological resources during the grading of a project.
- Paleontological Resources Policy 3: To preserve paleontological resources by maintaining them
 in an undisturbed condition.
 - *Historic Resources Policy 1:* To identify historic resources through literature and records research and/or on-site surveys.
 - *Historic Resources Policy 2:* To evaluate historic resources through comparative analysis or through subsurface or materials testing.
- Historic Resources Policy 3: To preserve significant historic resources by one or a combination of the following alternatives, as agreed upon: a) adaptive reuse of historic resource; b)
 maintaining the historic resource in an undisturbed condition; c) moving the historic resource and arranging for its treatment; d) salvage and conservation of significant elements of the historic resources; or e)documentation (i.e. research narrative, graphics, photography) of the historic resource prior to destruction.
- Additionally, a figure within the Resource Element identifies the San Juan Capistrano San Clemente
 District as sensitive for paleontological resources. (Orange County 2014)

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1 **City of San Juan Capistrano**

2 Historical and Cultural Landmarks Ordinance and Historic Preservation Ordinance

3 The City of San Juan Capistrano has adopted a Historical and Cultural Landmark Ordinance (Section 9-4 2.327). This ordinance requires city approval for any damage to a resource listed on the City's IHCL. 5 The proposed project would not affect any resources listed on the IHCL, the six historic districts, or four 6 historic streets.

7

8 As noted above, the City's BOD lists structures and sites that are potentially eligible for inclusion on the 9 City's Inventory of Historical and Cultural Landmarks when they meet all listing criteria and/or have 10 property owner concurrence to be added to the Inventory. The BOD is an honorary designation and imposes no restrictions nor conveys any benefits. The former utility structure at the existing Capistrano 11

- 12 Substation is included in the BOD list. (City of San Juan Capistrano 2007a,b)
- 13
- 14 The City has also adopted a series of policies (Council Policies 601, 602, 603, 606) to supplement the
- 15 Historical and Cultural Landmarks Ordinance and address a broad range of preservation issues, including
- 16 archaeological monitoring for development projects, reports for potentially historic sites, modifications to
- 17 designated historic sites, and historic depiction programs for new non-residential projects.
- 18

19 The City has adopted a Cultural Resources/Historic Preservation District as an Environmental Overlay.

20 The purpose of the Historic Preservation overlay is "to establish regulations for those areas of the City

21 which, due to their historical or cultural significance, require special consideration to insure their

22 preservation as a community resource" (San Juan Capistrano Municipal Code, Sec. 9-3.407). The

23 proposed project would not be located within the Historic Preservation District. 24

25 **General Plan**

26 The Cultural Resources Element of the City of San Juan Capistrano General Plan includes the following 27 goal and policies applicable to the proposed project (City of San Juan Capistrano 1999): 28

- Cultural Resources Goal 1: Preserve and protect historical, archaeological, and paleontological 30 resources.
- 31 • **Policy 1.1:** Balance the benefits of development with the project's potential impacts to existing 32 cultural resources.
- 33 **Policy 1.2:** Identify, designate, and protect buildings and sites of historic importance.
- 34 **Policy 1.3:** Identify funding programs to assist private property owners in the preservation of 35 buildings and sites of historic importance.
- 36

29

37 The City is currently developing a Historic Town Center Master Plan, the boundaries of which are

38 Acjachema Street to the north, the Interstate 5 Freeway to the east, Avenue La Paloma to the south, and 39 Paseo Adelanto to the west. This proposed Historic Town Center does not include the proposed project

- 40 area.
- 41

1 City of San Clemente

The Natural Resource Element of the City of San Clemente General Plan addresses the natural resources
within the Orange County. The Natural Resource Element contains the following goal and policies
pertaining to archeological and paleontological resources (City of San Clemente 2014):

- **Goal:** Protect archaeological and paleontological resources in a manner which preserves history or cultural traditions, provides scientific or cultural knowledge or provides educational value.
- Policy NR-3.01: Project Impacts. We require assessment and mitigation of potential impacts to archaeological and paleontological resources as part of applications for general plan amendments, zoning changes, or any projects requiring environmental review per the California Environmental Quality Act (CEQA).
- Policy NR-3.02: Notification. We require the notification of cultural organizations, including
 California Native American organizations, of proposed projects that have the potential to
 adversely impact archaeological or cultural resources.
- Policy NR-3.03: Inventory of Archeological and Paleontological Resources. We maintain up-todate information regarding archaeological and paleontological resources and contact information for responsible organizations and qualified individuals who can analyze, record, and preserve findings.

The Historic Preservation Element of the City of San Clemente General Plan has the primary goal of preserving and rehabilitating buildings and other sites with archaeological, historical and cultural significance to San Clemente (City of San Clemente 2014). The following policy is the only one that applies to the proposed project:

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• **Policy HP-2.03. CEQA Requirement:** We require mitigation of significant, adverse impacts to onsite and nearby historic resources as part of applications for general plan amendments, zoning changes, or any projects requiring environmental review per the California Environmental Quality Act (CEQA).

30 **4.5.3 Impact Analysis**31

32 **4.5.3.1** Methodology and Significance Criteria

To determine whether cultural or paleontological resources have been previously identified within the proposed project area, the CPUC reviewed published scientific documents and technical and survey reports regarding areas in proximity to components of the proposed project, as well as general plan and policy documents. In addition, database searches, field studies, and Native American consultations were completed, and Native American group comments were reviewed (Section 4.5.1.1). For paleontological resources, literature reviews and database searches were conducted to identify previously recorded paleontological resources in the proposed project area (Section 4.5.1.2).

- 41
- 42 Impacts on cultural resources were evaluated according to the following significance criteria. The criteria
- are based on Appendix G of the CEQA Guidelines. The proposed project would cause a significant
 impact on cultural resources if it would:

- a) Cause a substantial adverse change in the significance of a historical resource as defined in CEQA § 15064.5;
- b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA § 15064.5;
- c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or
- d) Disturb any human remains, including those interred outside of formal cemeteries.

4.5.3.2 Applicant Proposed Measures

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The applicant has committed to the following Applicant Proposed Measures (APMs) as part of the design
of the proposed project. See Section 2.6, "Applicant Procedures, Plans, Standards, and Proposed
Measures," for a complete description of each project commitment.

16 APM CUL-1: Worker Training for Cultural Resources. Prior to the initiation of construction or 17 ground-disturbing activities, all SDG&E, contractor, and subcontractor personnel would receive 18 training regarding the appropriate work practices necessary to effectively implement the APMs and to 19 comply with the applicable environmental laws and regulations, including the potential for exposing 20 subsurface cultural resources and paleontological resources and to recognize possible buried 21 resources. Training would inform all construction personnel of the anticipated procedures that would 22 be followed upon the discovery or suspected discovery of archaeological materials, including Native 23 American remains, and their treatment, as well as of paleontological resources.

- APM CUL-2: Cultural Resource Monitoring. A qualified archaeologist would attend
 preconstruction meetings, as needed, and a qualified archaeological monitor would monitor ground
 disturbing 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.
- APM CUL-3: Avoid Known Cultural Resources. Known cultural resources that can be avoided
 would be demarcated as Environmentally Sensitive Areas. Construction crews would be instructed to
 avoid disturbance of these areas.
- 34 APM CUL-4: Unanticipated Cultural Finds. In the event that cultural resources are discovered, the 35 archaeologist would have the authority to divert or temporarily halt ground disturbance to allow 36 evaluation of potentially significant cultural resources. The archaeologist would contact SDG&E's 37 Cultural Resource Specialist and Environmental Project Manager at the time of discovery. The 38 archaeologist, in consultation with SDG&E's Cultural Resource Specialist, would determine the 39 significance of the discovered resources. SDG&E's Cultural Resource Specialist and Environmental 40 Project Manager must concur with the evaluation procedures to be performed before construction 41 activities are allowed to resume. For significant cultural resources, a Research Design and Data 42 Recovery Program would be prepared and carried out to mitigate impacts.
- APM CUL-5: Curate Cultural Discoveries. 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.

- APM CUL-6: Archeological Monitoring Results Report. 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,
 SDG&E's Environmental Project Manager, and the CPUC. Any new cultural sites or features
 encountered would be recorded with the SCCIC or SCIC.
- APM CUL-7: Monitoring by Native Americans. Native American monitoring may be implemented
 if transmission line construction has the potential to impact identified and mapped traditional
 locations and places. The role of the Native American monitor would be to represent tribal concerns
 and communicate with the tribal council. Appropriate representatives would be identified based on
 the location of the identified traditional location or place.
- APM CUL-8: Paleontological Monitoring. 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 with high paleontological resource sensitivity. A paleontological monitor is defined as an individual who has experience in the collection and salvage of fossil materials.
- 16 **APM CUL-9: Discovery of Fossils.** In the event that fossils are encountered, the paleontological 17 monitor would have the authority to divert or temporarily halt construction activities in the area of 18 discovery to allow recovery of fossil remains in a timely fashion. The paleontologist would contact 19 SDG&E's Cultural Resource Specialist and Environmental Project Manager at the time of discovery. 20 The paleontologist, in consultation with SDG&E's Cultural Resource Specialist, would determine the 21 significance of the discovered resources. SDG&E's Cultural Resource Specialist and Environmental 22 Project Manager must concur with the evaluation procedures to be performed before construction 23 activities are allowed to resume. Because of the potential for recovery of small fossil remains, it may 24 be necessary to set up a screen-washing operation on site. When fossils are discovered, the 25 paleontologist (or paleontological monitor) would recover them along with pertinent stratigraphic 26 data. In most cases, this fossil salvage can be completed in a short period of time. Because of the 27 potential for recovery of small fossil remains, such as isolated mammal teeth, recovery of bulk 28 sedimentary- matrix samples for off-site wet screening from specific strata may be necessary, as 29 determined in the field. Fossil remains collected during monitoring and salvage would be cleaned, 30 repaired, sorted, cataloged, and deposited in a scientific institution with permanent paleontological 31 collections, and a paleontological monitoring report would be written.
- APM CUL-10: Building of Distinction Requirements. The applicant proposes to take the following
 steps found in Council Policy 602, which applies to the alteration, modification, or demolition of
 "significant" structures:
- Advertise for a period of three months that the former utility structure may be available for relocation.
- 37 2. Prepare a photographic record of the former utility structure. Photographs will include:
- 38 a. Each elevation;
- b. Close-ups of any unusual or unique architectural features; and
- 40 c. Views of the structure from a distance.

In addition, measured drawings or plans will be included.

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3. If not relocated, allow the removal of any architectural elements of the former utility structure for a period of two weeks at the expense of any local historic interest group or organization removing the element.

AUGUST 2015

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4.5.3.3 Environmental Impacts

Impact CUL-1:Substantial adverse change in the significance of an historical resource.LESS THANSIGNIFICANT-WITH MITIGATION

Field surveys of the surveyed area were performed by TRC archaeologists on March 12, March 19, and
21, 2008, and additional field visits and/or surveys occurred on September 29 and 30, October 11 and 12,
and December 28 and 29, 2011; February 28, 2012; and March 15, 2012. There are three known historical
resources within the surveyed area, as presented in Table 4.5-1. Ground disturbing activities during
construction or restoration would not impact two of the historical sites—30-176663/19-186804 and 30176664—as proposed disturbance areas would avoid these sites. Additionally, the applicant would
implement APM CUL-3, which would require the applicant to demarcate cultural resources as

- 13 Environmental Sensitive Areas in the field.
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15 The third historical site, the former utility structure (historic site 30-179873) at the existing Capistrano

- 16 Substation, would be demolished as part of the proposed project. Two historical assessments of the
- 17 former utility structure provided by the applicant found that the former utility structure is not a historic
- 18 resource as defined by CEQA and fails to meet the minimum requirements for significance under Section
- 19 106 of the federal regulations. A subsequent evaluation of the former utility structure, conducted by the
- 20 CPUC concurred with the applicant's finding that the former utility structure is ineligible for the NRHP
- 21 CRHR, or the City of San Juan Capistrano IHCL (Moomjian 2014). <u>However, on April 29, 2015, the</u>
- SHRC voted unanimously in favor of recommending the building as eligible for the NRHP. The recommendation was forwarded to the Keeper of the NRHP on July 17, 2015. The Keeper will review the
- 23 recommendation was forwarded to the Keeper of the NRHP on July 17, 2015. The Keeper will review the 24 nomination and make a determination of eligibility for the former utility structure to be listed in the
- 24 Infinitation and make a determination of englotinty for the former utility structure to be fisted in the 25 NRHP within 45 days of receipt of the nomination. Because the former utility structure's eligibility for
- 26 listing in the NRHP has not yet been determined, it is assumed for the purposes of this analysis that the
- 27 structure will be determined to be eligible for listing in the NRHP. Therefore, Tthe demolition of the
- former utility structure would-not be considered a significant impact under CEQA because this structure
- 29 is <u>potentially</u>-not a historic resource as defined by CEQA.
- 30
- The former utility structure is, <u>however</u>, <u>also</u> a locally significant BOD with attributes that render it eligible for local recognition. Because the building is listed as a BOD, the City of San Juan Capistrano's demolition permit could be conditioned with requirements to advertise the building for relocation; prepare
- 34 updated architectural drawings prior to demolition; fully photo-document the building's interior and
- exterior; and allow for salvaging of certain elements within the building, such as special casement
- 36 windows per the City's Council Policy 602 (City of San Juan Capistrano 1992). However, to the extent
- that issuance of a demolition permit by the City of San Juan Capistrano is a discretionary action, the
- 38 CPUC's approval of the Certificate of Public Convenience and Necessity would preempt local authority
- 39 and discretionary approval from the City Council for the demolition permit would not be required.
- 40 Nonetheless, the applicant would implement APM CUL-10, which includes the conditions of Council
- 41 Policy 602.
- 42
- There are 10 known prehistoric sites within the surveyed area; however, none of them were relocated
 during the applicant's field surveys. Additionally, the San Juan Basin, along San Juan Creek, is known to
- 45 have been the location of several Juaneño/Acjachemen villages. The alluvial sediments that fill the basin
- 46 also have the potential to hold buried deposits. Ground disturbing activities during construction or
- 47 restoration could significantly damage the known prehistoric sites and previously undiscovered historic
- 48 resources within the proposed project area. To address this, the applicant would implement APM CUL-1
- 49 through APM CUL-7, requiring the applicant to train all construction workers on the procedures to follow
- 50 if cultural resources are discovered, monitor within the vicinity of known cultural resources, demarcate
- 51 cultural resources as Environmental Sensitive Areas in the field, halt construction in the event that

1 cultural resources are discovered, curate and report cultural discoveries, and prepare a report of the 2 monitoring program. However, significant impacts on previously discovered and undiscovered historic 3 resources could still occur. As discussed in Section 4.5.4, MM CUL-1 through MM CUL-6 address this 4 as follows. MM CUL-1 requires the applicant to train construction workers how to identify cultural 5 resources in the field and their personal legal responsibility to avoid damage to a cultural resource. MM 6 CUL-2 requires the applicant to prepare and implement a Construction Monitoring Plan identifying areas 7 that would require a CPUC-approved cultural monitor present during ground disturbing activities. MM 8 CUL-3 defines the required expertise for a qualified or "CPUC-approved" archaeologist. MM CULT-4 9 requires the applicant to prepare and implement a Native American Consultation and Participation Plan to 10 ensure that Native American resources are not impacted. MM CUL-1 through MM CUL-4 are designed 11 to further prevent impacts on historic resources by requiring a properly qualified archaeologist to be 12 present during any construction and restoration activities with the potential to impact a previously 13 undiscovered historic resource, to ensure proper implementation of procedures for the discovery of 14 cultural resources as detailed in APM CUL-4 through APM CUL-6. 15

16 Some portions of the proposed project (i.e., new staging areas and the proposed 12-kV distribution line) 17 have not been surveyed by the applicant for cultural resources. Previously discovered or undiscovered 18 historic resources could occur within the unsurveyed areas of the proposed project area and could be 19 impacted by the construction or restoration of the proposed project. MM CUL-5 requires the applicant to 20 conduct intensive-level cultural resources surveys for all areas to be disturbed that have not already been 21 surveyed for cultural resources. Impacts on historic resources would be less than significant with 22 mitigation during construction and restoration. 23

24 **Impact CUL-2:** Substantial adverse change in the significance of an archaeological resource. 25 LESS THAN SIGNIFICANT WITH MITIGATION 26

27 Impacts on archaeological resources from the construction of the proposed project would be similar to 28 impacts on historical resources from construction activities as described under Impact CUL-1. To address 29 this, the applicant would implement APM CUL-1 through APM CUL-6, requiring the applicant to train 30 all construction workers on the procedures to be followed if cultural resources are discovered, monitor 31 within the vicinity of known cultural resources, demarcate cultural resources as Environmental Sensitive 32 Areas in the field, halt construction in the event that cultural resources are discovered, curate and report 33 cultural discoveries, and prepare a report of the monitoring program. However, significant impacts on 34 previously discovered and undiscovered archaeological resources could still occur. As discussed in 35 Section 4.5.4, MM CUL-1 through MM CUL-6 address this as follows. MM CUL-1 requires the 36 applicant to train construction workers how to identify cultural resources in the field and their personal 37 legal responsibility to avoid damage to a cultural resource. MM CUL-2 requires the applicant to prepare 38 and implement a Construction Monitoring Plan identifying areas that would require a CPUC-approved 39 cultural monitor to be present during ground disturbing activities. MM CUL-3 defines the required 40 expertise for a qualified or "CPUC-approved" archaeologist. Implementation of MM CUL-1 through 41 MM CUL-3 would further prevent impacts on archaeological resources by requiring a properly qualified 42 archaeologist to be present during any construction and restoration activities with the potential to impact a 43 previously undiscovered archaeological resource, to ensure proper implementation of procedures for the 44 discovery of cultural resources as detailed in APM CUL-4 through APM CUL-6. Impacts on 45 archaeological resources would be less than significant with mitigation during construction and 46 restoration. 47

- 48 Some portions of the proposed project (i.e., new staging areas and the proposed 12-kV distribution line)
- 49 have not been previously surveyed by the applicant for cultural resources. Previously discovered or
- 50 undiscovered archaeological resources could occur within the unsurveyed areas of the proposed project 51

require the applicant to conduct intensive-level cultural resource surveys for all areas to be disturbed that
 have not already been surveyed for cultural resources. Impacts on archaeological resources would be less
 than significant with mitigation during construction and restoration.

Impact CUL-3:Directly or indirectly destroy a unique paleontological resource or site or
unique geologic feature.
LESS THAN SIGNIFICANT WITH MITIGATION

9 The proposed project would include ground disturbance in geologic units with high potential to contain 10 paleontological resources (Table 4.5-2). To address this, the applicant would implement APM CUL-1, 11 APM CUL-8, and APM CUL-9, which would require the applicant to train all construction workers on 12 the procedures to follow in the event of a discovery of paleontological resources, have a paleontological 13 monitor present during excavation operations that involve the original cutting of previously undisturbed 14 deposits with high paleontological resource sensitivity, and halt construction in the event that fossils are 15 encountered so that the resources could be recovered. However, potential impacts on paleontological 16 resource would remain significant. As discussed in Section 4.5.4, MM CUL-1, MM CUL-6, and MM 17 CUL-7 would address this as follows by requiring the applicant to provide additional preconstruction 18 training to all onsite personnel regarding paleontological resources; prepare the Paleontological 19 Monitoring and Treatment Plan to meet additional standards and submit the plan to the CPUC for review; 20 and use a qualified paleontological consultant as determined by the CPUC. Impacts under this criterion 21 would be less than significant with mitigation.

Impact CUL-4: Disturb any human remains, including those interred outside of formal cemeteries. LESS THAN SIGNIFICANT WITH MITIGATION

27 A review of records and field studies in the proposed project area has revealed that potential disturbance 28 of human remains is possible as a result of the proposed project. If human remains are encountered, HSC 29 Section 7050.5 states that no further disturbance will occur until the County Coroner has made the 30 necessary findings regarding origin. Further, pursuant to California PRC Section 5097.98, remains will be 31 left place and free from disturbance until a final decision regarding treatment and disposition is made. If 32 the County Coroner determines that the remains are Native American, the NAHC must be contacted 33 within 24 hours. The NAHC must then identify the most likely descendants within 48 hours of receiving 34 notification of the discovery. The most likely descendants will make recommendations and engage in 35 consultations concerning treatment of the remains pursuant to PRC 5097.98. In the event of dispute 36 regarding human remains, and upon request, the NAHC may mediate negotiations pursuant PRC 5097.94 37 and 5097.98.

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39 To prevent damage to any discovered human remains, the applicant would implement APM CUL-1

40 through APM CUL-6, which would require the applicant to train all construction workers on the

41 procedures to follow if a cultural resource is discovered, monitor within the vicinity of known cultural

42 resources, demarcate cultural resources as Environmental Sensitive Areas in the field halt construction in

43 the event that cultural resources are discovered, curate and report cultural discoveries, and prepare a 44 report of the monitoring program. However, significant impacts on human remains could still occur. As

45 discussed in Section 4.5.4, MM CUL-1 through M CUL-3 address this as follows. MM CUL-1 requires

the applicant to train construction workers how to identify human remains in the field and their personal

47 legal responsibility to avoid damage to a cultural resource. MM CUL-2 requires the applicant to prepare

48 and implement a Construction Monitoring Plan identifying areas that would require a CPUC-approved

49 cultural monitor present during ground disturbing activities. MM CUL-3 defines the require expertise for

50 a qualified or "CPUC-approved" archaeologist. MM CUL-1 through MM CUL-3 are designed to further

51 prevent impacts on human remains by requiring a properly qualified archaeologist to be present during

any construction and restoration activities with the potential to impact a previously undiscovered human
 remain, to ensure that proper implementation of procedures for the discovery of human remains are
 implemented. Impacts on human remains would be less than significant with mitigation.

4.5.4 Mitigation Measures

MM CUL- 1: Supplemental Worker Training for Cultural Resource. As a supplement to APM CUL-1, this measure requires the applicant to incorporate the following specific topics into the pre-construction cultural resource training for all onsite personnel:

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- Describe the role of cultural and paleontological resources monitors and the role of Native American monitors;
- Describe the types of cultural and paleontological resources that may be found in the proposed project area;
- Describe the potential for human remains to be discovered during ground disturbing activities;
 and
- Describe the penalties associated for breaking the laws relevant to the protection of cultural and paleontological resources.

The cultural and paleontological resources training components will be presented by a CPUC-approved
 cultural resources consultant (see MM CUL-3) and CPUC-approved paleontological consultant (see MM
 CUL-6). The applicant shall provide a copy of the training material and trainee sign-in sheets to the
 CPUC prior to construction.

MM CUL-2: Construction Monitoring Plan. Prior to construction, the applicant will submit a
 Construction Monitoring Plan for the proposed project, prepared by the approved consultant(s) (MM
 CUL-3) for review and approval by the CPUC. The final Construction Monitoring Plan shall be
 implemented, as specified, throughout construction and restoration. The Construction Monitoring Plan
 shall, at a minimum:

- Identify areas where native soil will be disturbed by construction or restoration of the proposed project or where known cultural resources (APM CUL-2) occur in the project area as areas that will be monitored by a CPUC-approved archaeologist.
- Confirm that archeological monitoring will be performed during all ground disturbing activities
 along Segment 1a of the 230-kV transmission line, Segment A of the 12-kV distribution line, and
 within the proposed San Juan Capistrano Substation to prevent potential damage to buried
 Juaneño/Acjachemen deposits.
- Describe monitoring procedures that will take place for each project component area as required.
- Describe how often monitoring will occur (e.g., full-time, part time, spot checking).
- 40 Describe monitoring reporting requirements (APM CUL-6).
- 41 Describe the Testing and Evaluation Plans and Data Recovery Plans (APM CUL-4 and APM CUL-5).
- Include contact information for those to be notified or reported to.

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1 MM CUL-3: Oualified Cultural Resources Consultants. The applicant will retain the services of 2 qualified professional (CPUC-approved) cultural resources consultants who meet or exceed the United 3 States Secretary of the Interior qualification standards for professional archaeologists published in 36 4 Code of Federal Regulations (CFR) 61 and who have experience working in the jurisdictions traversed by 5 components of the proposed project sufficient to identify the full range of cultural resources that may be 6 found in the proposed project area. The consultants will also have knowledge regarding the cultural 7 history of the proposed project area. The resumes and supporting information for each cultural resources 8 consultant will be submitted to the CPUC for approval. At least one qualified cultural resources 9 consultant must be approved by the CPUC prior to start of construction. 10 11 MM CUL-4: Native American Consultation and Participation Planning. As a supplement to APM 12 CUL-7, prior to construction, the applicant will provide evidence to the CPUC that tribes requesting 13 consultation with the applicant regarding the project design and impacts on cultural resources were 14 consulted. In addition, the applicant will provide evidence to the CPUC that tribes that have expressed 15 interest in the project during any phase (i.e., project application through end of construction and 16 restoration) have been given the opportunity to participate in additional cultural resources surveys (MM 17 CUL-45) and/or cultural resources monitoring when performed by a CPUC-approved cultural resources 18 consultant (MM CUL-3). 19 20 To outline the expected duties and responsibilities of all parties involved, the applicant and a CPUC-21 approved cultural resources consultant will submit a Native American Participation Plan prior to 22 construction. The final Native American Participation Plan shall be implemented, as specified, throughout 23 construction and restoration. Tribes that have expressed interest in the project prior to construction will be 24 given the opportunity to participate in development of the plan. At a minimum, the plan will specify that: 25 26 Native American monitors, if approved by a tribe, are expected to participate in worker • environmental awareness and health and safety training and follow all health and safety protocols. 27 28 Attendance by Native American monitors during construction and restoration of the proposed • 29 project is at the discretion of the tribe, and the absence of a Native American monitor, should the 30 tribes choose to forgo monitoring for some reason, will not delay work. 31 The Native American monitors will have the ability to notify a CPUC-approved cultural • 32 resources consultant who has the authority to temporarily stop work (MM CUL-3) if they find a 33 cultural resource that may require recordation and evaluation. 34 • Interpretation of a find will be requested from Native American monitors involved with the 35 discovery, evaluation, or data recovery of unanticipated finds for inclusion in the final Cultural 36 Resources Report-(MM CUL-10). 37 The tribes involved with preparation of the Native American Participation Plan will be given the • 38 opportunity to participate in the development of Testing and Evaluation Plans and Data Recovery 39 Plans (MM CUL-2) if the development of these plans is required. 40 Native American monitors approved by a tribe for monitoring work on the project will be notified • 41 30 days prior to start of construction of the various project components. 42 The Native American monitors will be compensated for their time. If more than one tribal group • 43 wishes to participate in the monitoring, SDG&E will work out an agreement for sharing of 44 monitoring compensation. 45 Define a process to inform tribes of completed cultural surveys and to provide a copy of the • 46 survey to interested tribes. 47

1 MM CUL-5: Additional Cultural Resources Surveys. Prior to issuance of construction permits the 2 notice to proceed, the applicant will ensure that qualified archaeological consultants, as specified in MM 3 CUL-3, will conduct intensive-level cultural resources surveys (transects no greater than 10 meters) for 4 all areas to be disturbed that have not already been surveyed for cultural resources and that, prior to the 5 project, had been undisturbed. Surveys shall also include a California Historic Resources Information 6 System search and Native American Heritage Commission Sacred Lands file database search. Reports 7 that specify the research design, methods, and survey results will be submitted to the CPUC for review 8 and must be accepted by the CPUC prior to the start of ground disturbance in the previously unsurveyed 9 areas. 10 11 MM CUL-6: Qualified Paleontological Consultants. The applicant will retain the services of qualified 12 professional paleontological consultants with knowledge of the local paleontology and the minimum 13 levels of experience and expertise as defined by the Society of Vertebrate Paleontology's Standard 14 Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources (2010). 15 The resumes and supporting information for each paleontological consultant will be submitted to the 16 CPUC for approval. At least one qualified paleontological consultant must be approved by the CPUC 17 prior to start of construction. 18 19 MM CUL-7: Paleontological Monitoring and Treatment Plan. Prior to start of construction, the 20 applicant will submit a Paleontological Monitoring and Treatment Plan for the proposed project that is 21 prepared by a CPUC-approved paleontological consultant (MM CUL-6) to the CPUC for approval. This 22 plan will be adapted from the Society of Vertebrate Paleontology's Standard Procedures for the 23 Assessment and Mitigation of Adverse Impacts to Paleontological Resources (2010) to specifically 24 address each project component. In addition, the plan will, at a minimum: 25 26 • Describe the criteria used to determine whether an encountered resource is significant and if it 27 should be avoided or recovered. 28 Identify construction and restoration impact areas of moderate to high sensitivity for encountering • 29 paleontological resources and the shallowest depths at which those resources may be 30 encountered. 31 • Describe methods of recovery, preparation, and analysis of specimens, final curation of 32 specimens at a federally accredited repository, data analysis, and reporting. 33 Briefly identify and describe the types of paleontological resources that may be encountered. • 34 • Describe monitoring procedures that will take place for each component of the project that 35 requires monitoring. 36 Describe how often monitoring will occur (e.g., full time, part time, spot checking), as well as the • 37 circumstances under which monitoring will be increased or decreased. 38 Describe the circumstances that will result in the halting of work. • 39 Describe the procedures for halting work and for notifying construction and restoration crews • 40 when work is to be halted and to be resumed. 41 Include testing and evaluation procedures for resources encountered. • 42 Describe procedures for curating any collected materials. • 43 Outline coordination strategies to ensure that the CPUC-approved paleontological consultant • 44 (MM CUL-6) conducts full-time monitoring of all grading activities in sediments determined to 45 have a moderate to high sensitivity. 46 Include reporting procedures.

• Include contact information for those to be notified or reported to.

For sediments of low or undetermined sensitivity, the Paleontological Monitoring and Treatment Plan
will specify the level of monitoring necessary. Sediments with no sensitivity will not require
paleontological monitoring. The plan will define specific conditions in which monitoring of earthwork
activities could be reduced and/or depth criteria established to trigger monitoring. These factors will be
defined by an approved (MM CUL-6) paleontologist.

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1 **4.10 Land Use and Planning**

This section describes the environmental and regulatory settings and discusses potential impacts associated with the construction and operation of the South Orange County Reliability Enhancement Project (proposed project) with respect to land use and planning. Comments received from members of the public and local agencies during the scoping period regarding land use addressed the following concerns: compatibility of the proposed project to adjacent land uses, specifically the proposed San Juan Capistrano Substation; and the compatibility of the design of the San Juan Capistrano substation to the surrounding community.

10 The proposed project's potential impacts on aesthetic resources are addressed in Section 4.1, 11 "Aesthetics."

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134.10.1Environmental Setting

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15 The proposed project would be located in unincorporated southern Orange County, the City of San Juan

16 Capistrano, the City of San Clemente, and unincorporated northern San Diego County. Table 4.10-1

17 details the general plan land uses, existing land uses, and zoning by proposed project component. Project

18 components referenced in this section are fully described in Section 2.3, "Description of Components of

the Proposed Project." Figure 4.10-1 shows general plan land use along the proposed project route and
 Figure 4.10-2 shows zoning designations in the proposed project component areas.

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Table 4.10-1 General Plan Land Use, Existing Land Use, and Zoning by Proposed Project

Component				
		General Plan	Existing	
Location	Jurisdiction	Land Use	Land Use	Zoning
Proposed San Juan Capistrano Substation				
San Juan	City of San	Quasi Industrial	Capistrano Substation	(CM) Commercial Manufacturing
Capistrano	Juan			District
Substation	Capistrano			
Talega Substa	tion			
Talega	Orange County	Public Facilities	Talega Substation	(A1) General Agricultural
Substation				
Talega	San Diego	Public/Semi-Public	Talega Substation	(RR) Residential
Substation	County ²	Facilities		
Transmission	Line Segment 1	а		
Poles 1a/2a	City of San	High Density	Private	(RM) Multiple Family District
	Juan		Park/Community Area	
Pole 3a	Capistrano	No designation (Metrolink	Frontage road for	No zoning (Metrolink ROW)
		ROW)	Metrolink ROW	
Poles 4a/5a		Open Space Recreation	El Camino Real Park	(OSR) Open Space Recreation
				District
New		High Density	Private	(RM) Multiple Family District
underground			Park/Community Area	
		No designation (public	Public street (Camino	No zoning (public street right-of-
		street right-of-way)	Capistrano and Calle	way)
			San Diego)	

	•	General Plan	Existing	
Location	Jurisdiction	Land Use	Land Use	Zoning
Transmission	Line Segment 1	b		· ×
Poles 6a/7a/1/2/3	City of San Juan	Quasi Industrial	Capistrano Substation	(CM) Commercial Manufacturing District
Pole 4	Capistrano	Neighborhood Park	Junipero Serra Park	(NP) Neighborhood Park District
Pole 5		Open Space Recreation	Golf Course	(PC) Planned Community / CDP 86-4 – Marbella Golf & Country Club
Pole 6		Very Low Density	Electric Transmission	(PC) Planned Community/ CDP 01-01 – <i>Romarco / Honeyman</i>)
Pole 7		Low Density	Electric Transmission	(RS-10,000) Single-Family- 10,000 District
Pole 8		General Open Space	Arroyo Park	(OSR) Open Space Recreation District
Pole 9	_	Community Park	Russell Cook Park	(CP) Community Park District
Pole 10	-	General Open Space	Equestrian Center	(GOS) – General Open Space
Pole 11		Low Density	Electric Transmission	(RS-10,000) Single-Family- 10,000 District
Pole 12		Very Low Density	Electric Transmission	(RSE-40,000) Single Family 40,000 District
Pole 13		Very Low Density	Agriculture	(RA) Residential/Agriculture District
Poles 14		General Open Space	Open Space	(PC) Planned Community / CDP 04-01 Whispering Hills Estates
Pole 15		Planned Community	Open Space	(PC) Planned Community / CDP
Pole 16/17/8a				04-01 Whispering Hills Estates
Transmission	Line Segment 2		-	
New underground	City of San Juan Capistrano	Planned Community	Public street (Avenida Vista Montana)	No zoning (public street ROW)
Transmission	Line Segment 3			
Poles 18 through 21	City of San Juan Capistrano	Planned Community	Open Space	(PC) Planned Community / CDP 04-01 Whispering Hills Estates
Poles 22/23	Orange County	Public Facilities, Landfill	Landfill	(A1) General Agricultural
Poles 24/25		Site overlay	Open Space	
Pole 26	City of San Clemente	Open Space – Public Owned	Open Space	(TSP) Talega Specific Plan
Poles 27		Open Space – Privately	Open Space	(TSP) Talega Specific Plan
through 41		Owned		
Transmission Line Segment 4				
Pole 42	City of San Clemente	Open Space – Privately Owned	Open Space	(TSP) Talega Specific Plan
Pole 43	San Diego County ²	Public/Semi-Public Facilities	Open Space	(RR) Residential
Pole 44	City of San Clemente	Neighborhood Commercial	Open Space	(TSP) Talega Specific Plan

Table 4.10-1 General Plan Land Use,	Existing Land Use,	and Zoning by Proposed Project
Component ¹		

Leastion	luniadiation	General Plan	Existing	Zaning
		Land Use	Land Use	Zoning
Poles 45	City of Sop	Public Facilities	Open Space	(AT) General Agricultural
P0le 40	City of Sali	Commorcial	Open Space	(TSP) Talega Specific Platt
Pole 17	Orange County	Open Space	Open Space	(PC) Planned Community
		Dublic Facilities	Taloga Substation	(A1) Coneral Agricultural
	San Diego	Public/Semi_Public	Talega Substation	(RR) Residential
	County ²	Facilities	Talega Substation	
Pole 9a/10a	City of San	Open Space – Privately	Open Space	(TSP) Talega Specific Plan
	Clemente	Owned	-1	(, , , , , , , , , , , , , , , , , , ,
Pole 11a/12a	City of San	Neighborhood	Open Space	(TSP) Talega Specific Plan
	Clemente	Commercial		· · · · · ·
Poles 13a	San Diego	Public/Semi-Public	Open Space	(RR) Residential
through 20a	County ²	Facilities		
Poles 21a/22a/	Orange County	Public Facilities	Talega Substation	(A1) General Agricultural
23a				
Pole 1b/2b	San Diego	Public/Semi-Public	Open Space	(RR) Residential
	County ²	Facilities		
Poles 3b	City of San	Neighborhood	Open Space	(TSP) Talega Specific Plan
through 8b	Ciemente Oranga County	Commercial Dublic Eccilities	-	(A1) Coporal Agricultural
Pole 90	City of Son	Public Facilities	-	(AT) General Agricultural
Pole TUD	City of Sali	Commorcial		(TSP) Talega Specific Platt
12 kV Soamon		Commercial		
12-KV JCyllicitt A Dala D1 City of San No designation (nublic Dublic streat (Comina No zoning (nublic streat right of San				
	luan	street right-of-way)	Canistrano)	way)
	Capistrano	Siloci nghi-or-way)	Capisiranoj	way)
New	City of San	No designation (public	Public street (Camino	No zonina (public street right-of-
underground	Juan	street right-of-way)	Capistrano)	way)
5	Capistrano	Open Space Recreation	El Camino Real Park	(OSR) Open Space Recreation
	-			District
12-kV Segment B				
New	City of San	No designation (public	Public streets (Calle	No zoning (public street right-of-
underground	Juan	street right-of-way)	Bonita)	way)
	Capistrano	Neighborhood Park	Junipero Serra Park	(NP) Neighborhood Park District
12-kV Segment C				
Poles D2/D3	City of San	Neighborhood Park	Junipero Serra Park	(NP) Neighborhood Park District
	Juan			
	Capistrano			
Poles D4/D5	City of San	Open Space Recreation	Open Space	(PC) Planned Community / CDP
	Juan			86-4 – Marbella Golf & Country
				CIUD
IZ-KV Segmen		No decignation (nublic	Dublic strest (Danah -	No zoning (nublic streat right of
New	City of San	stroot right of way)	Violo Pd)	way)
Underground	Canistrano	Sireer right-of-way)	vieju kuj	way)
	Capistiano			

Table 4.10-1 General Plan Land Use,	Existing Land Use,	and Zoning by F	Proposed Project
Component ¹			

Table 4.10-1 General Plan Land Use, Existing Land Use, and Zoning by Proposed Project Component¹

	emperient			
Location	Jurisdiction	General Plan Land Use	Existing Land Use	Zoning
12-kV Segment H				
Poles D7	Orange County	Open Space	Open Space	(PC) Planned Community
through D11				
Sources: Orange County 2005a b: City of San Clemente 2014a b: City of San Juan Canistrane 1007, 1000a, 2004, 2014; San Diogo County 2011; T&P				

Clemente 2014a,b; City of San Juan Capistrano 1997, 1999a, 2004, 2014; San Diego County 2011; T&B Planning Consultants 2002; Vista Community Planners (2004)

Key:

CDP = Community Development Plan

kV = kilovolt

ROW = right of way Notes:

12-kV Segments E, F, G, I through M, and a portion of 12-kV Segment H, were not included in this table as the proposed project would only include the placement of the distribution line on or within existing facilities (i.e., existing underground conduit, existing overhead structures) and would not result in any change to existing land use.

Although the proposed project would be located within San Diego County, the land is owned and under the jurisdiction of the United States Marine Corps as part of the Camp Pendleton base. San Diego General Plan and Zoning designations would not be applicable.

1

2 Marine Corps Base Camp Pendleton

3 The southern portion of the Talega Substation and facilities within the Talega Hub and Corridor areas and 4 San Diego County would be located on land owned and under the jurisdiction of the United States Marine 5 Corps (Marine Corps) as part of the Camp Pendleton base. The Marine Corps issues easements to San 6 Diego Gas & Electric Company (SDG&E, or the applicant) for their facilities within their jurisdiction. 7 Additionally, the Marine Corps leases the area surrounding the proposed project components in this area 8 to the State of California Department of Parks and Recreation as part of the San Onofre State Preserve 9 (California Department of Recreation 2014).

10

Recreational Areas 11

12 As further discussed in Section 4.14, "Recreation," the proposed project would cross several recreational 13 areas. Within the City of San Juan Capistrano, the proposed project would cross a private community 14 center/recreation area, El Camino Real Park, Junipero Serra Park, Arroyo Park, Russell Cook Park, Lot

15 "F" in the Whispering Hills Planned Community, Marbella Golf Course and Country Club, and several

- 16 pedestrian and equestrian trails. Within the City of San Clemente, the proposed project would cross Prima
- 17 Deshecha Regional Park, Forster Ridgeline Trail, Pico and Cristianitos Trails and open space corridors

18 delimiting neighborhoods in the Talega community and in the existing open spaces surrounding Talega 19

Substation. As noted above, the portions of the proposed project on land owned by and under the 20

jurisdiction of the Marine Corps are surrounded by land that is leased to the State of California 21

Department of Parks and Recreation as part of the San Onofre State Preserve. No recreational areas are 22

located within unincorporated Orange County. Details regarding which proposed project components will

- 23 cross each recreational area can be found in Table 4.14-1.
- 24

25 Prima Deshecha Landfill

26 Portions of Transmission Line Segment 3 would traverse the Prima Deshecha Landfill, while 12-kilovolt

27 (kV) Segment L ends at the landfill entrance. The landfill is bisected by the border between the City of

28 San Juan Capistrano and unincorporated Orange County.

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Commercial

Open Space

Industrial

Local park

Jurisdiction boundary

N Trail path

Residential

Specific Plan

- Cable will be removed
- ✓ Proposed overhead transmission line
- Proposed underground transmission line Break line
- **A** Existing transmission line
- ✓ Access road

Component Areas



- ≁ Underground distribution line
- Cable will be removed
- Not proposed overhead transmission line
- Proposed underground transmission line Break line
- **A** Existing transmission line
- ✓ Access road

- - \square Temporary impact area

Local park

- Open Space
- - Public
- Arail path
 - Jurisdiction boundary

Designations in the Project Component Areas







Proposed underground transmission line Break line

Jurisdiction boundary

- **A** Existing transmission line
- ✓ Access road



✓ Access road

Reliability Enhancement Project







Jurisdiction boundary

✓ Access road





✓ Access road



✓ Access road







- Overhead distribution line
- Muderground distribution line
- Cable will be removed

Existing transmission line

✓ Access road

- → Proposed overhead transmission line
- A Proposed underground transmission line
- /// Trail path Break line

Local Park

Jurisdiction boundary

Temporary impact area

San Juan Capistrano Substation

- Zoning Categories
 - Agri-Business District
 - Commercial
 - Industrial
 - Open Space
 - Planned Community
- Planned Residential Development District
- Public and Institutional District
- Residential
- Residential/Agricultural District

Figure 4.10-2 A Zoning Designations in the Project Component Areas





- Noverhead distribution line
- And the stribution line th
- Cable will be removed
- A Proposed overhead transmission line
- Proposed underground transmission line
- ↔ Existing transmission line
- ∕∕ Access road

- Permanent impact area
 - Local Park
 - / Trail path
 - Jurisdiction boundary
- Zoning Categories
- Agri-Business District
- Commercial
- Open Space
- Planned Community
- Public and Institutional District
- Residential
- Residential/Agricultural District
- Specific Plan

Sources: ESRI 2010, SanGIS 2014, San Clemente 2013, San Juan Capistrano 2013, Orange County, 2014

Figure 4.10-2 B Zoning Designations in the Project Component Areas




- Overhead distribution line
- Muderground distribution line
- Cable will be removed
- ✓ Proposed overhead transmission line
- Proposed underground transmission line Proposed line
- Existing transmission line
- ✓ Access road

- - Temporary impact area Local Park
 - /// Trail path
 - - Jurisdiction boundary

- Zoning Categories
 - Agri-Business District
 - Floodplain Zone 1

 - Open Space
- Planned Community
- Residential
- Residential/Agricultural District

Figure 4.10-2 C Zoning Designations in the Project Component Areas





- Overhead distribution line
- Muderground distribution line
- Cable will be removed
- ✓ Proposed overhead transmission line
- Proposed underground transmission line Proposed line
- Existing transmission line
- ✓ Access road

- - Temporary impact area Local Park
 - /// Trail path
 - - Jurisdiction boundary

- Zoning Categories
- Agriculture
- Floodplain Zone 1
- Open Space
- Planned Community
- Residential
- Residential/Agricultural District

Figure 4.10-2 D Zoning Designations in the Project Component Areas





- Overhead distribution line
- Muderground distribution line
- Cable will be removed
- ✓ Proposed overhead transmission line
- Proposed underground transmission line
- Existing transmission line
- ✓ Access road



- Temporary impact area Local Park
- /// Trail path
- - Jurisdiction boundary

Zoning Categories

- Open Space
- Planned Community

Residential

Residential/Agricultural District

Figure 4.10-2 E Zoning Designations in the Project Component Areas





- Overhead distribution line
- Muderground distribution line
- Cable will be removed
- ✓ Proposed overhead transmission line
- Proposed underground transmission line
- Existing transmission line
- ✓ Access road

- Temporary impact area Local Park /// Trail path
 - - Jurisdiction boundary

Zoning Categories

- Agri-Business District
- Open Space
- Planned Community
- Public and Institutional District

Residential

- Residential/Agricultural District
- Specific Plan

Figure 4.10-2 F Zoning Designations in the Project Component Areas





- Overhead distribution line
- Muderground distribution line
- Cable will be removed
- ✓ Proposed overhead transmission line
- Proposed underground transmission line Proposed line
- Existing transmission line
- Access road



- Permanent impact area Temporary impact area Local Park
- /// Trail path
- - Jurisdiction boundary
- Zoning Categories
- Agriculture
- Open Space
- Planned Community

Residential

- Residential/Agricultural District

Figure 4.10-2 G Zoning Designations in the Project Component Areas





- Noverhead distribution line
- Muderground distribution line
- Cable will be removed
- ✓ Proposed overhead transmission line
- Proposed underground transmission line
- Existing transmission line
- ∕ Access road



- Permanent impact area Temporary impact area Local Park
- /// Trail path

Jurisdiction boundary

- Zoning Categories Agriculture
 - Open Space
- Planned Community Solid Waste Facility District

Figure 4.10-2 H Zoning Designations in the Project Component Areas





- Overhead distribution line
- Muderground distribution line
- Cable will be removed
- → Proposed overhead transmission line
- Proposed underground transmission line
- Existing transmission line
- Access road

- /// Trail path

Local Park

Jurisdiction boundary

Temporary impact area

Zoning Categories



Solid Waste Facility District

Specific Plan

Figure 4.10-2 I

Zoning Designations in the Project Component Areas





- Noverhead distribution line
- Muderground distribution line
- Cable will be removed
- ✓ Proposed overhead transmission line
- Proposed underground transmission line
- Existing transmission line
- Access road

- Permanent impact area
 - Temporary impact area Local Park
 - /// Trail path
 - - Jurisdiction boundary

Zoning Categories

Solid Waste Facility District

Specific Plan

Figure 4.10-2 J Zoning Designations in the Project Component Areas





Noverhead distribution line

Muderground distribution line

- Cable will be removed
- ✓ Proposed overhead transmission line
- Proposed underground transmission line
- Existing transmission line
- Access road



- Permanent impact area Temporary impact area Local Park
- /// Trail path
- - Jurisdiction boundary

Zoning Categories Specific Plan

Figure 4.10-2 K Zoning Designations in the Project Component Areas



- RANGE \checkmark
- Noverhead distribution line
- Muderground distribution line
- Cable will be removed
- ✓ Proposed overhead transmission line
- Proposed underground transmission line
- Existing transmission line
- Access road

- - Temporary impact area Local Park
 - /// Trail path
 - - Jurisdiction boundary
- Zoning Categories Specific Plan

Figure 4.10-2 L Zoning Designations in the Project Component Areas





- Muderground distribution line
- Cable will be removed
- ✓ Proposed overhead transmission line
- Proposed underground transmission line
- Existing transmission line
- Access road

- - Temporary impact area Local Park
 - /// Trail path
 - - Jurisdiction boundary

Zoning Categories

Residential

Specific Plan

Figure 4.10-2 M Zoning Designations in the Project Component Areas





- Overhead distribution line
- Muderground distribution line
- Cable will be removed

Existing transmission line

Access road

- Proposed overhead transmission line
- A Proposed underground transmission line
 - Break line

/// Trail path

Jurisdiction boundary

Talega Substation

Local Park

Temporary impact area

Agriculture

Planned Community

Residential

Specific Plan

Figure 4.10-2 N Zoning Designations in the Project Component Areas

1 **4.10.2 Regulatory Setting**

4.10.2.1 Federal

5 Marine Corps Base Camp Pendleton Strategic Plan

The Marine Corps Base (MCB) Camp Pendleton Strategic Plan serves a guide to meet the following five
 command goals of the base:

- 1. Enhance Installation Support of Warfighting Readiness
- 10 2. Ensure the Long-Term Viability of All Installations
- 11 3. Provide High Quality, Sustainable, and Affordable Installation Support
 - 4. Optimize Workforce Excellence
 - 5. Promote Critical Partnerships

15 The MCB Camp Pendleton mission is also identified in the Strategic Plan, which focuses on the

command, control, and training of the operating forces as well as providing support to the Marines,
 Sailors, and their families.

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19 Marine Corps Base Camp Pendleton Integrated Natural Resources Management Plan

20 The proposed project would traverse through a portion of MCB Camp Pendleton, which is subject to the

21 Integrated Natural Resources Management Plan (INRMP). The INMRP is a planning document that

22 guides the management and conservation of natural resources under the base's control. The Sikes Act

requires that an INRMP be reviewed not less often than every five years, but MCB Camp Pendleton, the

24 United States Fish and Wildlife Service (USFWS), and the California Department of Fish and Wildlife

- 25 (CDFW) have agreed to meet annually to review the Camp Pendleton INRMP. The INRMP was last
- republished in 2012. Special status species managed under the Camp Pendleton INRMP include a total of 39 sensitive plant species and the presence of more than 50 mammalian, 30 reptilian, 10 amphibian, 300
- 39 sensitive plant species and the presence of more than 50 mammalian, 30 reptilian, 10 amphibian, 300
 avian, and 60 fish species, at least 12 of which are federally or state listed species (MCB Camp Pendleton

28 avian, and 60 fish species, at least 12 of which are federally of state listed species (MCB Camp Pendleto) 29 2007, updated 2012). The proposed project would traverse a portion of MCB Camp Pendleton that is

2007, updated 2012). The proposed project would traverse a portion of MCB Camp Pendleton that is
 leased to the California State Parks and is currently managed by the California Department of Parks and

Recreation as San Onofre State Beach. However, SDG&E would be subject to environmental

32 documentation requirements (i.e., submit the Navy's/Marines' Preliminary Environmental Data sheet for

review) pursuant to Marine Corps Executive Order 5090.2.

34

35 Marine Corps Base Camp Pendleton Base Exterior Architecture Plan

36 The overall land use strategy for MCB Camp Pendleton is outlined in the MCB Camp Pendleton Master

37 Plan. The related official document providing direction on facility and site development is the Base

38 Exterior Architecture Plan (BEAP). The following design objectives and guidelines contained within the

BEAP address Land Use and Planning issues and are potentially relevant to the proposed project (MCB
 Camp Pendleton 2010):

- 40 41 42
- Site Planning Objectives (Section 3.4 of the BEAP):
- 43 Ensure compatibility with the existing natural features.
- 44 Ensure compatibility with existing development.
- 45 *Ensure compatibility with future development.*
- 46

The BEAP also includes more specific design guidelines relating to utilities, e.g., undergrounding of utilities, screening of substations, and locating utilities within easements.

4.10.2.2 State

California Public Utilities Commission

The California Public Utilities Commission's (CPUC's) review of transmission line applications takes place under two concurrent and parallel processes:

- 1. Environmental review pursuant to the California Environmental Quality Act (CEQA); and
- 2. Review of project needs and costs pursuant to Public Utilities Code Sections 1001 et seq. and General Order 131-D.
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14 CPUC General Order 131-D, *Rules relating to the planning and construction of electric generation*,

- 15 transmission/power/distribution line facilities and substations located in California, states that no electric 16 public utilities will begin construction in the State of California of any new electric generating plant, or of
- public utilities will begin construction in the State of California of any new electric generating plant, of the modification, alteration, or addition to an existing electric generating plant, or of electric

18 transmission/power/distribution line facilities, or of new, upgraded, or modified substations without first

19 complying with the provisions of the General Order.

20

21 Pursuant to Article XII of the Constitution of the State of California, the CPUC is charged with the

- regulation of investor-owned public utilities. Article XII, Section 8, of the California Constitution states,
- 23 "[a] city, county, or other public body may not regulate matters over which the Legislature grants
- regulatory power to the [Public Utilities] Commission." The Public Utilities Code authorizes the CPUC to
- 25 "do all things, whether specifically designated in this act or in addition thereto, which are necessary and
- 26 convenient in the exercise of such power and jurisdiction" (California Public Utilities Code §701). Other
- Public Utilities Code provisions generally authorize the CPUC to modify facilities, to secure adequate
 service or facilities, and operate so as to promote health and safety.
- 29

30 In the context of electric utility projects, CPUC General Order 131-D, Section XIV.B, states that "local

- 31 jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects,
- 32 distribution lines, substations, or electric facilities constructed by public utilities subject to the
- 33 Commission's jurisdiction. However in locating such projects, the public utilities shall consult with local
- 34 agencies regarding land use matters." Under this regulation, the applicant would be required to obtain all
- 35 applicable ministerial building and encroachment permits from local jurisdictions for the proposed project
- 36 (see Table 2-9 in Chapter 2, "Project Description").
- 37

38 Habitat Conservation Plans / Natural Communities Conservation Plans

- 39 The proposed project would be located within areas of Orange County covered by the Orange County
- 40 Southern Subregion Habitat Conservation Plan (HCP). However, because the applicant's activities are
- 41 regulated at the statewide level rather than at the local level, the legally applicable equivalent plan is the
- 42 SDG&E Subregional Natural Community Conservation Plan (NCCP)/Habitat Conservation Plan (HCP)
- 43 (SDG&E 1995a). Under the SDG&E Subregional NCCP/HCP, certain areas containing habitat for
- 44 Covered Species¹³ are considered preserve areas. Preserve areas include existing reserve or conservation
- 45 areas established by regional planning documents (e.g., Orange County Southern Subregion HCP); state,
- 46 federal, and local preserve areas; lands designated as public and private open space, community parks,

¹³ Covered Species are species protected under local ordinances, including the San Diego Gas & Electric Company (SDG&E, or the applicant) Subregional Natural Community Conservation Plan (NCCP)/Habitat Conservation Plan. See Section 4.4, "Biological Resources" for further information.

cross existing and yet to be recorded conservation easements within the Orange County Southern 6 Subregion HCP. A detailed discussion of the proposed project implications for listed species and relationship to the SDG&E Subregional NCCP/HCP can be found in Section 4.4, "Biological Resources." 8 9 4.10.2.3 Local 10 11 **Orange County General Plan** 12 The following major policy goals expressed in the Land Use element of the Orange County General Plan 13 (Orange County 2005a) are relevant to the proposed project: 14 15 Major Land Use Element Policy 2, Phased Development. To phase development consistent with • the adequacy of public services and facilities within the capacity defined by the General Plan. 16 17 • Major Land Use Element Policy 6, New Development Compatibility. To require new 18 development to be compatible with adjacent areas. 19 Major Land Use Element Policy 8, Enhancement of Environment. To guide development so • 20 that the quality of the physical environment is enhanced. 21 22 **Orange County Zoning Ordinance** 23 The proposed project would cross the (A1) General Agricultural and (PC) Planned Community. Sections 24 7-9-55.3 and 7-9-103 of the Orange County Zoning Ordinance state that public and private utility 25 buildings and structures are permitted within (A1) General Agricultural and (PC) Planned Community with discretionary approval, respectively (Orange County 2005b). However, the CPUC has preemptive 26 27 jurisdiction over the construction, maintenance, and operation of public utilities in the State of California; 28 therefore, no local discretionary approval would be required for the proposed project. 29 30 **City of San Juan Capistrano General Plan** 31 The following goals and policies expressed in the Land Use element of the San Juan Capistrano General 32 Plan (San Juan Capistrano 1999a) are relevant to the proposed project: 33 34 Land Use Goal 2: Control and direct future growth within the City to preserve the rural village-• 35 like character of the community. 36 • **Policy 2.2**: Assure that new development is consistent and compatible with the existing character 37 of the City. 38 • **Policy 2.3**: Ensure that development corresponds to the provision of public services and facilities.

and preserve land designated by local general land use plans,¹⁴ and public or private areas set aside for the

long term protection of plants and wildlife (SDG&E 1995a,b). The proposed project would cross existing

traverse through preserve areas identified within the Orange County Southern Subregion HCP within the

applicant's existing utility ROW. These areas are portrayed in Figure 4.4-3. Additionally, the project may

- 39 Land Use Goal 4: Preserve major areas of open space and natural features. •
- 40 • **Policy 4.3**: Preserve designated ridgelines and the immediate adjacent area to maintain the open 41 space character of the community.
- 42 Land Use Goal 7: Enhance and maintain the character of neighborhoods.

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General Plan land use designations for the cities of San Clemente and San Juan Capistrano and the counties of Orange and San Diego is described in Section 4.10, Land Use and Planning.

- **Policy 7.1**: Preserve and enhance the quality of San Juan Capistrano neighborhoods by avoiding or abating the intrusion of non-conforming buildings and uses.
- **Policy 7.2**: Ensure that new development is compatible with the physical characteristics of its site, surrounding land uses, and available public infrastructure.
 - **Policy 7.3**: Utilize programs for rehabilitation of physical development, infrastructure and undergrounding of utilities within the City to improve community neighborhoods.

8 City of San Juan Capistrano Municipal Code

9 Section 7-8 of the City of San Juan Capistrano municipal code identifies requirements to underground 10 utilities within designated districts. Section 7-8.06. (c) exempts electrical lines with a voltage of 34.5 kV 11 or higher from the city-wide requirement to underground utility facilities. No underground districts were 12 identified within the proposed project area.

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- 14 The proposed San Juan Capistrano Substation is on land zoned (CM) Commercial Manufacturing
- 15 District. Section 9-3.305 identifies allowed uses and development standards for industrial districts
- 16 including the CM District. Within this Section, Table 3-6 identifies public facilities (including public
- 17 <u>utilities</u>) as a permitted use within the (CM) Commercial Manufacturing District. Table 3-7 defines
- building setback, height, and floor area standards and includes a building height limitation of 35 feet (San
 Juan Capistrano 2014).
- 20 The proposed San Juan Capistrano Substation would be in zone (CM) Commercial Manufacturing
- 21 District. Section 9-3.305 identifies electrical use as a permitted use within the (CM) Commercial
- 22 Manufacturing District. (San Juan Capistrano 2014).

24 City of San Clemente Centennial General Plan

The following goals expressed in the Land Use element of the San Clemente Centennial General Plan
 (San Clemente 2014a) are relevant to the proposed project:

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- Land Use Plan Primary Goal 1: Retain and enhance established [...] open spaces that improve the community's quality of life [...].
- Land Use Plan Primary Goal 6: Protect and maintain significant environmental resources.

32 City of San Clemente Zoning Ordinance

33 Section 17.28.240 of the City of San Clemente's municipal code states that "public utility distribution and

- transmission line towers and pole for [...] electricity shall be allowed in all zones without obtaining a
- 35 Conditional Use Permit. However, all routes and heights of proposed electric transmission systems of 69 KV

and over [...] shall be located in conformance with the General Plan of the City." (City of San Clemente
 2014b)

37 201 38

39 City of San Clemente Talega Specific Plan

40 The Specific Plan for the Talega community in San Clemente deals primarily with the development of a

41 Master Plan, Design Guidelines, and Development Standards for the area and does not appear to develop

- 42 policy goals. The Specific Plan Objectives listed in the Talega Specific Plan (T&B Planning Consultants
- 43 2002) refers to the City of San Clemente General Plan and a set of City programs with respect to policy
- 44 implementation.
- 45

1 **4.10.3** Impact Analysis 2

4.10.3.1 Methodology and Significance Criteria

General Plans, ordinances, and land use and zoning maps were reviewed to determine whether the proposed project would be consistent with regional and locally adopted land use plans, goals, and policies.

Potential impacts on existing and planned land uses were evaluated according to the following
significance criteria. The criteria were defined based on the checklist items presented in Appendix G of
the CEQA Guidelines. The proposed project would cause a significant impact on land uses if it would:

- a) Physically divide an established community;
- b) Conflict with an applicable environmental plan, policy, or regulation of an agency with jurisdiction over the proposed 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.

4.10.3.2 Applicant Proposed Measures

There are no Applicant Proposed Measures (APMs) directly associated with land use and planning for the proposed project. See Section 2.6, "Applicant Procedures, Plans, Standards, and Proposed Measures," for a complete description of each project commitment.

4.10.3.3 Environmental Impacts

Impact LU-1: Physical division of an established community. LESS THAN SIGNIFICANT

Construction of the proposed project may cause temporary disturbance to established communities as a result of road closures during work with road rights-of-way (ROWs). As noted in Section 2.4.9, "Roadway and Railway Crossings and Road Closures," the proposed transmission and distribution lines route would cross a number of roadways, including Interstate 5 (I-5). However only four roads may be partially or fully closed during construction:

- Camino Capistrano in San Juan Capistrano would require partial closures and may require full roadway closures for short- periods during the 1.5-month construction period.
- Calle San Diego in San Juan Capistrano would require partial closures and may require full roadway closures for as long as two weeks.
- Vista Montana Road in San Juan Capistrano, is the entrance roadway to San Juan Hills High
 School and the Rancho San Juan residential development from La Pata Avenue would require
 partial closures for approximately eight months.
- 45 Via Pomplon in San Juan Capistrano would require partial closures and may require full roadway closures for approximately two months.
 47

3

4

1 Roads that may result in temporary full road closures have other nearby roads that would be available as

2 detours for community residents and would not divide an existing community. Construction of the

3 proposed project would occur under or above the MetroLink Railroad track and would have no impact on

movement between MetroLink stations. Therefore, impacts under this criterion during construction would
 be less than significant.

6

7 **Operations and Maintenance**

8 The proposed San Juan Capistrano Substation would be located on land that extends from the existing

9 Capistrano Substation and is owned and maintained by SDG&E. Work proposed at Talega Substation
 10 would not change the exterior boundaries of the existing substation facility. Transmission Line Segments

11 1a, 1b, 2, and 3 and the entire 12-kV Distribution Line, with the exception of 12-kV Segment C, would be

located underground or within existing ROW. Therefore, operation of these proposed project components
 would have no impact on the division of an established community.

14

15 Transmission Line Segment 4 would cross vacant/undeveloped open space land use. Transmission Line 16 Segment 4 would not create a physical barrier, nor would it create an obstacle that would be considered a 17 physical barrier to the surrounding community because it would parallel existing electrical facilities and 18 would not prevent ingress to or egress from any area. 12-kV Segment C would span I-5 overhead and 19 would not prevent ingress or egress along I-5. Transmission Line Segment 4 and 12-kV Segment C would 19 have a less than a significant impact on established communities.

22Impact LU-2:Conflict with applicable plans, policies, or regulations.23*LESS THAN SIGNIFICANT WITH MITIGATION*

25 Marine Corps Base Camp Pendleton

A portion of Transmission Line Segment 4, 12-kV Segment M, and the Talega Substation would be located on land under the jurisdiction of the Marine Corps. The proposed project would result in an increase use of land on and in corridors near the Talega Substation. However, this intensification would take place within existing corridors and ROWs currently used for electrical transmission. Therefore, the proposed project would not create a conflict with the mission of MCB Camp Pendleton or MCB Camp Pendleton policies.

32

24

33 Orange County

34 The proposed project would not conflict with policies of the Land Use Element of the Orange County

35 General Plan because as a reliability enhancement for the electrical transmission and distribution

36 networks, the project would serve Policy 2, "Phased Development" of the Orange County General Plan

37 (see Section 4.10.2.3). Moreover, the proposed project would be located within an existing ROW or

38 adjacent to existing aboveground utility lines within utility ROW. Therefore, the proposed project would

39 not conflict with Policy 6, "New Development Compatibility" and Policy 8, "Enhancement of

- 40 Environment" of the Orange County General Plan.
- 41

The proposed project would not conflict with the Orange County Zoning Ordinance because public
 utilities area permitted in all zones crossed by the proposed project.

44

45 City of San Juan Capistrano

46 The project would be consistent with certain Land Use Goals and Policies in the General Plan of the City

- 47 of San Juan Capistrano. As a reliability enhancement for the electrical transmission and distribution
- 48 networks, the project would serve Policy 2.3 ("Ensure that development corresponds to the provision of
- 49 public services and facilities"), Policy 7.2 ("Ensure that new development is compatible with [...]

available public infrastructure"), and Policy 7.3 ("Utilize programs for rehabilitation of [...] infrastructure
 and undergrounding of utilities [...] to improve community neighborhoods").

Although a portion of Transmission Line Segment 1b would be located on ridgelines within the City of
San Juan Capistrano, the proposed project would not conflict with Policy 4.3 ("Preserve designated
ridgelines and the immediate adjacent area to maintain the open space character of the community")
because Transmission Line Segment 1b would follow an existing ROW with existing above-ground

8 electrical infrastructure. As a result, the proposed project would have no new impact on designated
 9 ridgelines. (San Juan Capistrano 1999a)

10

11 However, the proposed project would cause certain impacts requiring mitigation with respect to the

12 applicable Land Use Goals and Policies in the General Plan of the City of San Juan Capistrano. In certain 13 areas, proposed project components would alter the existing character and quality of surrounding areas

areas, proposed project components would after the existing character and quality of surrounding areas and would be inconsistent with Policy 2.2 ("Assure that new development is consistent and compatible

15 with the existing character of the City), Policy 7.1 (Preserve and enhance the quality of [...]

16 neighborhoods by avoiding [...] the intrusion of non-conforming buildings"), and Policy 7.2 (Ensure that

17 new development is compatible with the physical characteristics of its site [and] surrounding land uses").

18 Construction of the transmission line would physical enabled the private park/Community Area, near

19 Transmission Line Segment 1A, El Camino Real Park, and Junipero Serra Park by demolishing portions

20 of the parks during construction. However, as described in Section 4.13, "Public Services and Utilities,"

the applicant would implement APM PS-2, in which the applicant would return recreational facilities that

are physically impacted during construction to an approximate pre-construction state and would replace

any public damaged or removed equipment, facilities, and infrastructure.

24

Additionally, the proposed San Juan Capistrano Substation could result in a significant impact from the

compatibility of the substation with the surrounding community. As described in Section 4.1,
"Aesthetics." the applicant would be required to implement Mitigation Measure (MM) AES-1 and MM

AES-2, which require the applicant to obtain approval City Architectural Review Board's approval of the

design of the proposed San Juan Capistrano Substation facilities and landscaping prior to building and

restore disturbed areas to pre-project conditions. Implementation of MM AES-1 and MM AES-2, would

reduce potential conflicts with the City of San Juan Capistrano General Plan policies 2.2, 7.1, and 7.2.

32

Section 7-8 of the City of San Juan Capistrano municipal code identifies requirements to underground
 utilities within designated districts. Section 7-8.06. (c) exempts electrical lines with a voltage of 34.5 kV

34 utilities within designated districts. Section 7-8.06. (c) exempts electrical lines with a voltage of 54.5 kV 35 or higher from the city-wide requirement to underground utility facilities. No underground districts were

identified within the proposed project area. No designated underground districts were identified within the

37 proposed project area. The proposed San Juan Capistrano Substation would be located in an area zoned

proposed project area. The proposed San Juan Capistrano Substation would be located in an area zoned
 (CM) Commercial Manufacturing District. Section 9-3.305 of the San Juan Capistrano Municipal Code

identifies electrical use as a permitted use within the (CM) Commercial Manufacturing District. Therefore

40 the Transmission Line segments within the City of San Juan Capistrano and the proposed San Juan

41 Capistrano Substation would not conflict with the San Juan Capistrano Municipal Code.

42

43 The proposed San Juan Capistrano Substation would be located on land zoned (CM) Commercial

44 Manufacturing District. Section 9-3.305 of the San Juan Capistrano Municipal Code identifies public

45 <u>facilities (including public utilities) as a permitted use within the (CM) Commercial Manufacturing</u>

46 <u>District. This section also limits the height of buildings in this district to 35 feet. Therefore, the proposed</u>

47 San Juan Capistrano Substation, which includes the construction of 50-foot-tall buildings, would conflict

48 with applicable building height limits under the San Juan Capistrano Municipal Code. Distribution and
 49 Transmission line segments within the City of San Juan Capistrano would not conflict with the San Juan

- 50 Capistrano Municipal Code.
- 51

1 City of San Clemente

The proposed project would be compatible with the land use policies in the Land Use element of the San
Clemente Centennial General Plan. The proposed project would be located within an existing ROW and
therefore would not conflict with goals of retaining open spaces and protecting environmental resources.

5 The proposed project would not conflict with the City of San Clemente Zoning Ordinance because public

6 utilities are permitted in all zones and, as noted above, the proposed project would not conflict with the

7 City of San Clemente Centennial General Plan.8

9 <u>Conclusion</u>

10 In summary, the proposed project would have a less than significant impact on MCB Camp Pendleton,

11 Orange County, and San Clemente plans, policies, and regulations. However, the proposed project would

12 conflict with certain policies of the San Juan Capistrano General Plan that would require the

- 13 implementation of MM AES-1 and MM AES-2. Implementation of these mitigation measures would
- 14 reduce the conflict with the San Juan Capistrano General Plan to less than significant. However, the
- 15 proposed project would directly conflict with applicable building height regulations defined within the
- 16 San Juan Capistrano Municipal Code. This conflict is deemed to be unavoidable based on the proposed
- 17 design of the San Juan Capistrano Substation. Therefore, impacts under this criterion would be
- 18 significant.
- 19
 20 In summary, the proposed project would have a less than significant impact on MCB Camp Pendleton,
- 21 Orange County, and San Clemente policies and ordinances. The proposed project would have a less than
- 22 significant impact on San Juan Capistrano policies with the implementation of MM AES-1 and MM AES-
- 23 2. Therefore, impacts under this criterion would be less than significant with mitigation.

24 **Operations and Maintenance**

25 The proposed San Juan Capistrano Substation would be located on land that extends from the existing 26 Capistrano Substation and is owned and maintained by SDG&E. Work proposed at Talega Substation 27 would not change the exterior boundaries of the existing substation facility. Transmission Line Segments 28 1a, 1b, 2, and 3 and the entire 12-kV Distribution Line, with the exception of 12-kV Segment C, would be 29 located underground or within existing ROW. Therefore, operation of these proposed project components 30 would have no impact on the existing land use within the project area. Installation of a higher voltage 31 transmission line within the existing ROW would not change the existing compatible land uses allowed 32 within the ROW (e.g., recreational trails). 33 34 Although12-kV Segment C and portions of Transmission Line Segment 4 would occur within new ROW, 35 the segments would span I-5 and vacant/undeveloped open space land uses, respectively. Therefore, 36 operation of these proposed project components would have no impact on the existing land use within the 37 project area. 38

39

40Impact LU-3:Conflict with any applicable habitat conservation plan or natural
community conservation plan.4142*LESS THAN SIGNIFICANT WITH MITIGATION*

43

44 As further discussed in Section 4.4, "Biological Resources," all proposed project components would be

45 located within the plan area of the SDG&E Subregional NCCP/HCP, as well as the Orange County

46 Southern Subregion HCP (Figure 4.4-3). The SDG&E Subregional NCCP/HCP states that it is

independent of other NCCPs and HCPs; therefore, it is neither dependent upon the implementation of
 other NCCPs or HCPs, nor is it superseded by others, However, the SDG&E Subregional NCCP/HCP

other NCCPs or HCPs, nor is it superseded by others. However, the SDG&E Subregional NCCP/HCP
 also states that it takes the objectives of other HCPs and NCCPs in the area "into consideration," and

implementation of the SDG&E Subregional NCCP/HCP would include coordination with other HCPs and
 NCCPs (SDG&E 1995a).

3 4 Under the SDG&E Subregional NCCP/HCP, certain areas containing habitat for Covered Species are 5 considered preserve areas; specified mitigation activities and ratios are required for impacts on a preserve 6 area. Preserve areas include existing reserve or conservation areas established by regional planning 7 documents (e.g., HCPs); state, federal, and local preserve areas; and public or private areas set aside for 8 the long-term protection of plants and wildlife (SDG&E 1995a, b). Section 6.2.1 of the SDG&E 9 Subregional NCCP/HCP provides a consultation process with the USFWS and CDFW that SDG&E 10 would follow when the proposed project would traverse a preserve area. However, the SDG&E 11 Subregional NCCP/HCP does not specify a process for coordination with all landowners, conservation 12 easement holders, and regional plans in the proposed project area to determine the locations of preserve 13 areas (SDG&E 1995a,b). In addition, the SDG&E Subregional NCCP/HCP was written in 1995, and land 14 ownership and conservation easements and plans, as well as staffing levels and responsibilities of 15 USFWS and CDFW staff, have changed since then. 16 17 The proposed project may also conflict with two conservation easements established under the Orange 18 County Southern Subregion HCP. The two conservation easements in question are the Talega 19 Conservation Easement (unrecorded) and the Prima Deshecha Landfill Conservation Easement 20 (recorded). Potential conflicts with the Talega Conservation Easement cannot be determined until the 21 easement is recorded and the applicant conducts further consultation with the wildlife agencies (USFWS 22 and CDFW) regarding the establishment of new ROW and use of ground disturbing construction 23 techniques the easement. Potential conflicts with the Prima Deshecha Landfill Conservation Easement 24 cannot be determined until the construction disturbance limits of the proposed project have been 25 delineated in relation to the conservation easement boundary and the applicant's existing ROW. The 26 CPUC is in the process of gathering additional information pertaining to the boundaries and allowable 27 uses in each easement. Based on recent discussions with the USFWS, establishing new ROW or 28 impacting areas outside of the applicant's existing ROW and within the boundaries of the conservation 29 easement(s) would conflict with the both conservation easements, resulting in a significant impact. 30 31 The USFWS has indicated that establishing new ROW within the Talega Conservation Easement or 32 impacting areas of the Prima Deshecha Landfill Conservation Easement that are outside of the applicant's 33 existing ROW would directly conflict with the provisions of the aforementioned conservation 34 easement(s), and thereby the provisions of the Orange County Southern Subregion HCP. Implementation 35 of MM BR-10, as detailed in Section 4.4, "Biological Resources," would require the applicant to 36 participate in further coordination with the implementing agencies. While consultation with the USFWS 37 may identify mechanisms for reducing potentially significant impact to less than significant levels, MM 38 BR-10 on its own does not adequately ensure consistency with an adopted HCP at this time. Measures to 39 avoid, minimize, and mitigate potentially significant impacts to less than significant levels cannot be 40 evaluated until the Talega Easement is recorded and additional consultation between the applicant and the 41 wildlife agencies occurs. Therefore, impacts under this criterion are being treated as significant until 42 additional information is gathered. 43 44 Coordination is necessary to ensure that the proposed project is consistent with provisions of an adopted 45 HCP, NCCP, or other approved local, regional, or state HCP, the lack of which could result in a 46 significant conflict. Implementation of MM BR 10, as detailed in Section 4.4, "Biological Resources,"

- 47 would require the applicant to participate in further coordination with the implementing agencies. With
- 48 the implementation of the SDG&E Subregional NCCP/HCP and MM BR-10, any potentially significant
- 49 impacts to the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat
- 50 HCP would be reduced to a less than significant level.

4.10.4 Mitigation Measures

MM AES-1 and MM AES-2 are described in Section 4.1 "Aesthetics." MM BR-10 is described in

- Section 4.4, "Biological Resources." There are no other mitigation measures associated with land use and
- 5 planning for the proposed project.

5.0 Comparison of Alternatives

3 The purpose of an alternatives analysis pursuant to the California Environmental Quality Act (CEQA) is 4 to identify feasible options that would attain most of the basic objectives of a proposed project while 5 reducing its significant effects. Pursuant to Section IX.A.1.e of California Public Utilities Commission 6 (CPUC) General Order 131-D, San Diego Gas & Electric Company (the applicant, or SDG&E) provided 7 an analysis of the South Orange County Reliability Enhancement Project (proposed project) and 8 alternatives as part of their application and Proponent's Environmental Assessment (PEA). After the 9 application was filed, additional alternatives to the proposed project were identified during scoping and 10 by the CPUC's Energy Division as a result of the agency's independent review. This chapter provides 11 comparisons of the environmental advantages and disadvantages of the proposed project to each 12 Alternative considered in this Environmental Impact Report (EIR) (Chapter 3, "Description of 13 Alternatives"). The comparisons are based on the assessment of environmental impacts of the proposed 14 project presented in Chapter 4, "Environmental Analysis," with the environmental impacts of the 15 following alternatives:

- 16 • Alternative A: No Project
- 17 Alternative B1: Reconductor Laguna Niguel-Talega 138-kilovolt (kV) Line •
- 18 Alternative B2: Use of Existing Transmission Lines (Additional Talega–Capistrano 138-kV Line)
- 19 Alternative B3: Phased Construction of Alternatives B1 and B2 •
- 20 Alternative B4: Rebuild South Orange County 138-kV System •
- 21 Alternative C1: SCE 230-kV Loop-in to Capistrano Substation •
- 22 Alternative C2: SCE 230-kV Loop-in to Capistrano Substation Routing Alternative •
- 23 • Alternative D: SCE 230-kV Loop-in to Reduced-Footprint Substation at Landfill
- 24 Alternative E: New 230-kV Talega–Capistrano Line Operated at 138 kV •
- 25 Alternative F: 230-kV Rancho Mission Viejo Substation •
- 26 Alternative G: New 138-kV San Luis Rev–San Mateo Line and San Luis Rev Substation • 27 Expansion
- 28 Alternative J¹⁵: SCE 230-kV Loop-in to Trabuco Substation •
- 29 An Environmentally Superior Alternative is proposed in Section 5.3.

Comparison Methodology 30 5.1

31

1 2

- 32 Specific direction regarding the methodology for comparing alternatives to the proposed project is not 33 provided by the CEQA statute or guidelines. Alternatives must be evaluated in terms of the resource areas
- 34 impacted by the proposed project. CEQA Guidelines Section 15126.6 states that the alternatives
- 35 considered in an EIR must avoid or substantially lessen a significant impact of the proposed project. This
- 36 EIR identified three six resource areas for which impacts from the proposed project would be significant
- 37 and unavoidable (air quality, biological resources, cultural resources, land use and planning,
- 38 transportation and traffic, and cumulative impacts) and <u>13-10</u> resource areas for which impacts would be

¹⁵ As described in the Alternatives Screening Report (Appendix B of the Draft EIR), Alternatives H and I were not carried forward to the EIR.

less than significant with or without mitigation (Chapter 4, "Environmental Analysis" and Chapter 6,
 "Cumulative Impacts and Other CEQA Considerations").

4 Resource areas that are generally given more weight in the comparison of alternatives presented in this 5 chapter are those with long-term or widespread impacts. Impacts associated with construction (i.e., 6 temporary or short-term impacts), those that would remain localized, or those that can be easily mitigated 7 to less than significant levels are given less weight. For example, impacts on air quality and transportation 8 and traffic would both be temporary (occur only during construction of the proposed project), but impacts 9 on air quality would not remain localized. Direct mitigation for air pollutant emissions can be difficult to 10 implement and, in some cases, cannot sufficiently reduce impacts. In this chapter, the following methodology is used to compare the environmental impacts of the proposed project and alternatives: 11

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• Step 1: Identification of Alternatives and Potential Environmental Effects. A screening process was used to identify a number of alternatives to the proposed project. An Alternatives Screening Report (Appendix B) was prepared during this process that documents the criteria used to evaluate and select alternatives for further analysis, including their feasibility, the extent to which they would meet most of the basic objectives of the proposed project (Section 1.2.1, "Objectives of the Proposed Project"), and their potential to avoid or substantially lessen a potentially significant effect of the proposed project. The potentially significant effects identified for the screening report were defined based on the applicant's PEA and a preliminary review of the proposed project and environmental setting in proposed project area.

- Step 2: Evaluation of Environmental Impacts. The list of potential environmental effects
 identified for alternatives screening purposes (see Appendix B, Table 4, "Summary of Potentially
 Significant Effects of the Proposed Project") was updated based on site visits, CPUC requests for
 further information, and further research. Environmental impacts from construction and operation
 of the proposed project are evaluated by resource area in Chapter 4 of this EIR. The evaluation
 presented in Chapter 4 is much more detailed than presented in the Alternatives Screening Report
 and covers more resource areas.
 - Step 3: Comparison of the Proposed Project and Alternatives. In this chapter, the environmental impacts of the proposed project are compared to those of each alternative, including the No Project Alternative. An Environmentally Superior Alternative is then proposed.

33 **5.2 Analysis of Alternatives**

35 An analysis of the advantages and disadvantages of each Alternative in comparison to the proposed 36 project is presented in this section. Determinations are provided that indicate whether the 37 Alternative would be more or less impactful than the proposed project with respect to resource areas for 38 which a significant and unavoidable impact would occur from construction or operation of the proposed 39 project (i.e., impacts on air quality, biological resources, cultural resources, land use and planning, 40 transportation and traffic, and cumulative impacts). Impacts that would be less than significant without 41 mitigation or for which feasible mitigation exists to reduce the impact to less than significant levels are 42 not the focus of the comparison of alternatives presented. Where the analysis determines that impacts 43 would be similar to the proposed project, the proposed project is selected as environmentally superior for 44 that resource area. Table 5-1 provides a summary of the analysis and determinations.

Table 5-1 Summary of the Alternatives Analyses and Determinations														
Resource Area	Proposed Project	Alt. A	Alt. B1	Alt. B2	Alt. B3	Alt. B4	Alt. C1	Alt. C2	Alt. D	Alt. E	Alt. F	Alt. G	<u>Alt. J</u>	Environmentally Superior 1 Alternative 2
Aesthetics	LTS	Less	Less	Less	Less	Similar	Similar	Similar	Less	Less	Similar	Greater	SimilarLess	$-\frac{3}{4}$
Agriculture and Forestry Resources	LTS	Less	Similar	Similar	Similar	Similar	Similar	Similar	Similar	Similar	Greater	Similar	Less	- 5
Air Quality	S	Less	Less	Less	Less	Greater	Less	Less	Less	Less	Greater Similar	Greater Similar	Less	Alternative B1J 7
Biological Resources	lts <u>s</u>	Less	Similar	Similar	Similar	GreaterSimilar	Less	GreaterLess	Similar	Similar	Greater	Greater Similar	Less	Alternative J 8
Cultural and Paleontological Resources	LTS <u>S</u>	Less	Less	Less	Similar	Greater Similar	Less Similar	Greater Similar	Similar	Less	Greater Less	Greater	Less	Alternative J 9 10
Geology, Soils, and Mineral Resources	LTS	Less	Less	Less	Similar	Similar	Similar	Similar	Similar	Less	Greater	Greater	Less	- 11 12
Greenhouse Gas Emissions	LTS	Less	Less	Less	Less	Greater	Similar	Similar	Similar	Less	Greater	Greater	Less	_ 13
Hazards and Hazardous Materials	LTS	Less	Less	Less	Less	Similar	Similar	Similar	Greater	Less	Similar	Greater	<u>Similar</u>	- 15
Hydrology and Water Quality	LTS	Less	Similar	Similar	Similar	Greater	Similar	Greater	Similar	Similar	Similar	Greater	Less	- 17
Land Use and Planning	LTS S	Less	Similar <u>Less</u>	Similar Less	Similar Less	Similar	Similar Less	Similar Less	Greater Similar	Similar Less	Similar Less	Greater Similar	Less	Alternative J 19
Noise	LTS	Less	Less	Less	Less	Greater	Similar	Similar	Less	Less	Less	Greater	Less	- 20
Population and Housing	LTS	Less	Similar	Similar	Similar	Similar	Similar	Similar	Similar	Similar	Similar	Similar	<u>Similar</u>	$- \frac{21}{22}$
Public Services and Utilities	LTS	Less	Similar	Similar	Similar	Similar	Similar	Similar	Similar	Similar	Similar	Greater	<u>Similar</u>	$ \frac{22}{23}$
Recreation	LTS	Less	Similar	Similar	Similar	Similar	Similar	Greater	Similar	Similar	Similar	Greater	Less	- 24
Transportation and Traffic	S	Less	Less	Less	Less	Greater	Similar	Greater	Less	Less	Less	Greater	Less	Alternative JAlternative D25
Cumulative	S	Less	Less	Less	Less	Greater	Similar	Similar	Less	Less	Less	Greater	Less	Alternative JAlternative D26
	Note:													- 27

LTS = Less than significant S = Significant

28 29

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RECIRCULATED DRAFT EIR

1 The following sections compare the environmental impacts of the proposed project with those of each 2 alternative. Determinations are provided that indicate whether the Alternative would result in greater or 3 lesser impacts than the proposed project. A description of each Alternative is provided in Chapter 3, 4 "Description of Alternatives." Each of the following alternatives are considered to be potentially feasible 5 and would meet most of the basic objectives of the proposed project.

5.2.1 Alternative A – No Project

8 9 Under the No Project Alternative, it is assumed that none of the components of the proposed project 10 would be constructed. All of the significant impacts from construction and operation of the proposed 11 project would be avoided. It is anticipated that minor maintenance work would occur as needed to repair 12 or replace failed or inadequate substation equipment and transmission line facilities as described in 13 Chapter 3, "Description of Alternatives." Such maintenance activities are not expected to cause a 14 significant impact as they would be constructed without obtaining a Certificate of Public Convenience 15 and Necessity or Permit to Construct from the CPUC pursuant to CPUC General Order 131-D and CEQA Guidelines Section 15260 et seq. and 15300 et seq. (statutory and categorical exemptions).¹⁶ Work that 16 17 may require review pursuant to CEQA is not considered part of the No Project Alternative. It follows that 18 none of the mitigation measures included in this EIR to reduce significant impacts to less than significant 19 levels would apply to the No Project Alternative. 20

21 Determination

22 The No Project Alternative would be environmentally superior in comparison to the proposed project.

23 Significant and unavoidable impacts of the proposed project on air quality, biological resources, cultural

24 resources, land use and planning, transportation and traffic, and cumulative would be avoided. 25

26 5.2.2 Alternative B1 – Reconductor Laguna Niguel–Talega 138-kV Line

27

6 7

28 **Biological Resources**

- 29 Under this alternative, new ROW, as described for the proposed project, would be required within the 30 boundaries of the Talega Conservation Easement. Additionally, construction may occur outside the 31 existing SDG&E ROW within the Prima Deshecha Landfill Conservation Easement. SDG&E has not 32 completed the proper coordination with USFWS and CDFW to determine conflicts with other Habitat 33 Conservation Plans (HCPs) and Natural Community Conservation Plan (NCCPs) in the area; similar to 34 the proposed project, impacts under this alternative would be considered significant until SDG&E has 35 completed coordination requirements detailed in Section 6.2 of the SDG&E NCCP that prove otherwise. 36 37 **Cultural Resources** 38 Alternative B1 does not include the expansion of the existing Capistrano Substation. Therefore, the 39 former utility structure (historic site 30-179873) would not be demolished under this alternative as 40
- described for the proposed project. Alternative B1 would avoid significant impacts on historic resources
- 41 when compared to the proposed project.

42

43 Land Use and Planning

- 44 Alternative B1 does not include the expansion of the existing Capistrano Substation. Therefore, the
- 45 construction of 45- to 50-foot-tall buildings to house new 138-kV and 230-kV equipment as described for

¹⁶ A categorical exemption is an exemption from CEQA consideration for a class of projects based on a finding by the California Secretary for Resources that the class of projects does not have a significant effect on the environment (CEQA Guidelines Section 15354). A statutory exemption is an exemption from some or all CEQA considerations or the timing of CEQA consideration as defined by California legislature (CEQA Guidelines Section 15260).

- 1 the proposed project would not occur, and conflicts with local zoning height restriction would not result.
- 2 Alternative B1 would substantially reduce impacts on land use and planning when compared to the
- 3 proposed project. However, as discussed above under "Biological Resources," this alternative would have
- 4 significant impacts from conflicts with applicable NCCPs and HCPs in the area. Therefore, impacts on
- 5 land use under Alternative B1 would remain significant.
- 6 7

Under this alternative, a new double-circuit 230-kV line would not be installed and the San Juan

- 8 Capistrano Substation would not be constructed. The use of high-capacity conductor would reduce the 9 number of support structures that would be required to be replaced for 138-kV line reconductoring. For
- 10 the purposes of this EIR, however, it is conservatively assumed that all of the existing 138-kV structures
- 11 would be replaced along the section of TL13835 between Capistrano Substation and Talega Substation to
- 12 allow for reconductoring (approximately 45 transmission line poles¹⁷). No new distribution line structures
- 13 would be installed under Alternative B1. Under the proposed project, approximately 82 transmission line
- poles and 10 distribution line poles would be installed. The transmission structures installed under
 Alternative B1 would be smaller than those installed for the proposed project. They would be designed to
- Alternative B1 would be smaller than those installed for the proposed project. They would be designed to support a single circuit of a smaller, 138-kV conductor instead of two circuits of a larger 230-kV
- 17 support a single circuit of a smaller, 158-kV conductor instead of two circuits of a larger 250-kV 17 conductor. In addition, fewer structures would be removed under Alternative B1 than the proposed
- 17 conductor. In addition, fewer structures would be removed under Alternative B1 than the proposed 18 project.
- 18 p 19

20 Accounting for the reduced number of poles to be installed and removed and assuming that the existing

21 Capistrano Substation footprint would remain unchanged, approximately 19 acres¹⁸ of temporary land

- disturbance would occur for the construction of Alternative B1, which would be approximately 31.2 acres
- 23 fewer than for construction of the proposed project (50.2 acres; Table 2-8). Alternative B1 would be
- completed in approximately 45 months instead of 64 months, see Table 2-6. In addition, fewer workers
- 25 (less than 45 per day instead of up to 80 per day, Section 2.4.1.2) and less equipment would be required
- 26 for the construction of Alternative B1 than the proposed project.27

28 Air Quality

- 29 Based on the assumed disturbance acreages, the criteria pollutant emissions during construction of
- 30 Alternative B1 would be approximately 62 percent below the construction emissions for the proposed
- 31 project. While Alternative B1 would reduce emissions of reactive organic gas (ROG) to less than
- 32 significant, Alternative B1 criteria pollutant emissions would still exceed regional significance thresholds
- for NO_x , PM_{10} , and $PM_{2.5}$ prior to mitigation. Implementation of mitigation measures described for the
- 34 proposed project would reduce NO_x emissions from Alternative B1 to less than significant. However,
- 35 similar to the proposed project, PM_{10} and $PM_{2.5}$ emissions from Alternative B1 would remain significant
- and unavoidable.
- 38 Because Alternative B1 does not include expanding the existing Capistrano Substation, the associated
- 39 significant air quality impact resulting from exceeding the South Coast Air Quality Management District
- 40 (SCAQMD) local significance threshold (LST) at the 6.4-acre construction site would be avoided.

¹⁷ Along proposed transmission line Segments 1b through 3 (Figure 2-1), 42 new transmission line poles are proposed. It is assumed three transmission line poles would be replaced within the Talega Corridor area. To present a conservative comparison of alternatives to the proposed project, it was not assumed that the existing steel structures between Capistrano Substation and the Rancho San Juan residential area could be used for Alternative B1 without replacement.

¹⁸ The sum of the temporary disturbance areas listed for installation of the proposed transmission lines in Table 2-8 is 33.7 acres. This assumes that 82 transmission line poles would be installed and 38 would be removed. If only 45 transmission line poles were installed and a similar ratio of transmission line poles were removed, this would equate to approximately 19 acres of land disturbance.

However, LSTs would still be exceeded by Alternative B1 at other locations, and impacts would remain
 significant and unavoidable.

Alternative B1 is the Environmentally Superior Alternative for air quality (Table 5-1) compared to the
 other alternatives because Alternative B1 would reduce the proposed project air emissions by the largest
 percentage (62 percent).

b percentage (62 percent).7

8 Transportation and Traffic

9 Under Alternative B1, new conductor would be installed across Interstate 5 (I-5) and State Route 74

10 (SR-74). Impacts on these highways from conductor stringing and construction traffic would be similar to

11 those of the proposed project. It is assumed that less work would occur in the vicinity of Via Pamplona

12 under Alternative B1 than for the proposed project because an available section of underground conduit

13 (1,900 feet long) is already in place that could accommodate a new 138-kV line (Table 2-3). The

14 installation of new conductor may require partial closures along Via Pamplona to facilitate stringing new

15 conductor from the dead-end structures through the existing underground conduit; however, no full road

16 closure is anticipated. Additionally, Alternative B1 does not include the expansion of the existing

17 Capistrano Substation; therefore, the associated partial or full closures of Calle San Diego and Camino

18 Capistrano would not occur. Alternative B1 would avoid significant impacts on transportation and traffic

19 when compared to the proposed project.

20

21 Cumulative Impacts

22 Alternative B1 does not include the expansion of the existing Capistrano Substation. Therefore, the

23 associated partial closures of Camino Capistrano in the City of San Juan Capistrano that are required

24 under the proposed project would not occur, and the capacity of Camino Capistrano would not be

25 reduced. Alternative B1 would avoid a cumulatively significant impact on the performance standard of

26 Camino Capistrano.27

28 Other Resource Areas

29 Alternative B1 would reduce impacts on aesthetics, cultural resources, geology and soils, GHGs,

30 hazardous materials, and noise as a result of not expanding the existing Capistrano Substation, avoiding

31 trenching along Via Montana, and construction of fewer facilities within the same transmission corridor

32 compared to the proposed project. However, the proposed project would already have less than significant

33 impacts on these resources. Impacts on all other resources would be similar to the proposed project (Table

34 5-Î).

35

36 **Determination**

37 Alternative B1 would result in fewer impacts on air quality and land use than the proposed project;

however, this these impacts would remain significant under Alternative B1. Alternative B1 would reduce

39 the proposed project's cultural resources, transportation and traffic, and cumulative impacts to less than

40 significant. This alternative would not increase the capacity of the South Orange County 138-kV system

41 as substantially as the proposed project because a new 230-kV source to South Orange County would not

42 be constructed.43

44 5.2.3 Alternative B2 – Use of Existing Transmission Lines (Additional Talega– 45 Capistrano 138-kV Line)

46

47 Biological Resources

48 Under this alternative, new ROW, as described for the proposed project, would be required within the
 49 boundaries of the Talega Conservation Easement. Additionally, construction may occur outside the

- 1 existing SDG&E ROW within the Prima Deshecha Landfill Conservation Easement. SDG&E has not
- 2 completed the proper coordination with USFWS and CDFW to determine conflicts with other HCPs and
- 3 <u>NCCPs in the area; similar to the proposed project, impacts under this alternative would be considered</u>
- 4 significant until SDG&E has completed coordination requirements detailed in Section 6.2 of the SDG&E
 5 NCCP that prove otherwise.
- 5 <u>NCCP that prove otherwise.</u> 6

7 Cultural Resources

- 8 Alternative B2 does not include the expansion of the existing Capistrano Substation. Therefore, the
- 9 former utility structure (historic site 30-179873) would not be demolished under this alternative as
- 10 described for the proposed project. Alternative B2 would avoid significant impacts on historic resources
- 11 when compared to the proposed project.
- 12

13 Land Use and Planning

- 14 Alternative B2 does not include the expansion of the existing Capistrano Substation. Therefore, the
- 15 construction of 45- to 50-foot-tall buildings to house new 138-kV and 230-kV equipment as described for
- 16 the proposed project would not occur, and conflicts with local zoning height restriction would not result.
- 17 <u>Alternative B2 would substantially reduce impacts on land use and planning when compared to the</u>
- 18 proposed project. However, as discussed above under "Biological Resources," this alternative may have
- 19 significant impacts from the conflicts with applicable NCCPs and HCPs in the area. Therefore, impacts
- 20 on land use under Alternative B2 would remain significant.
- 21

22 Under this alternative, the proposed San Juan Capistrano Substation would not be constructed, and it is

- assumed that the same number of transmission structures that would be installed for Alternatives B1
- would be installed for Alternative B2. Although the use of high-capacity conductor would reduce the
- 25 number of support structures requiring replacement for 138-kV line reconductoring under Alternative B2,
- it is conservatively assumed that all of the existing 138-kV and 66/69-kV structures would be replaced
 between Capistrano Substation and Talega Substation.
- 27 28

Under Alternative B2, however, 38 distribution line poles would be installed, and distribution line poles
 would be removed as proposed for the relocation of 12-kV Circuit 315. This would not be required under

31 Alternative B1. Accounting for the reduced number of transmission line poles to be installed and removed

32 and assuming that the existing Capistrano Substation footprint would remain unchanged, the construction

- of Alternative B2 would result in approximately 21.5 acres¹⁹ of temporary land disturbance, which would
- 34 be approximately 28.7 acres fewer than for construction of the proposed project.
- 35

Alternative B2 would be completed in less than 36 months (before 2018) instead of 64 months (mid

- 37 2020), see Table 2-6. In addition, fewer workers (less than 60 per day instead of up to 80 per day, Section
- 37 2020), see Table 2-0. In addition, lewer workers (less than 60 per day instead of up to 80 per day, Sector 38 2.4.1.2) and less equipment would be required for the construction of Alternative B2 than the proposed

2.4.1.2) and less equipment would be required for the construction of Alternative B2 than the proposed
 project.

40

41 Air Quality

- 42 Based on the assumed disturbance acreages, the criteria pollutant emissions during construction of
- Alternative B2 would be approximately 57 percent below the construction emissions for the proposed
- 44 project. While Alternative B2 would reduce emissions of ROG to less than significant, Alternative B2
- 45 criteria pollutant emissions would still exceed regional significance thresholds for NO_X , PM_{10} , and $PM_{2.5}$

¹⁹ The sum of the temporary disturbance areas listed for installation of the proposed transmission and distribution lines in Table 2-8 is 36.7 acres (33.7 acres plus 3 acres). This assumes that 82 transmission line and 38 distribution line poles would be installed. If the same number of distribution line poles were installed but only 45 transmission line poles were installed (assuming a similar ratio of transmission line poles were removed), this would equate to approximately 21.5 acres of land disturbance.

- 1 prior to mitigation. Implementation of mitigation measures described for the proposed project would
- 2 reduce NO_x emissions from Alternative B2 to less than significant. However, similar to the proposed
- 3 project, PM_{10} and $PM_{2.5}$ emissions from Alternative B2 would remain significant and unavoidable.
- 4
- 5 Because Alternative B2 does not include expanding the existing Capistrano Substation, the associated
- 6 significant air quality impact resulting from exceeding the SCAQMD LST at the 6.4-acre construction
- 7 site would be avoided. However, LST thresholds would still be exceeded by Alternative B2 at other
- 8 locations, and impacts would remain significant and unavoidable.
- 9

10 Transportation and Traffic

11 Under Alternative B2, new conductor would be installed across I-5 and SR-74. Impacts on these

- 12 highways from conductor stringing and construction traffic would be similar to those of the proposed
- 13 project. It is assumed that less work would occur in the vicinity of Via Pamplona under Alternative B2
- 14 than for the proposed project because an available section of underground conduit (1,900 feet long) is
- already in place that could accommodate a new 138-kV line (Table 2-3). The installation of new
- 16 conductor may require partial closures along Via Pamplona to facilitate stringing new conductor from the
- 17 dead-end structures through the existing underground conduit; however, no full road closure is
- 18 anticipated. Additionally, Alternative B2 does not include the expansion of the existing Capistrano
- 19 Substation; therefore, the associated partial and full closures of Calle San Diego and Camino Capistrano
- 20 would not occur. Alternative B2 would avoid significant impacts on transportation and traffic when
- compared to the proposed project.

23 Cumulative Impacts

- 24 Alternative B2 does not include the expansion of the existing Capistrano Substation. Therefore, the
- 25 associated partial closures of Camino Capistrano in the City of San Juan Capistrano that are required
- 26 under the proposed project would not occur, and the capacity of Camino Capistrano would not be
- 27 reduced. Alternative B2 would avoid a cumulatively significant impact on the performance standard of
- 28 Camino Capistrano.
- 29

30 Other Resource Areas

- 31 Alternative B2 would reduce impacts on aesthetics, cultural resources, geology and soils, GHGs,
- 32 hazardous materials, and noise as a result of not expanding the existing Capistrano Substation, avoiding
- 33 trenching along Via Montana, and construction of fewer facilities within the same transmission corridor
- 34 compared to the proposed project. However, the proposed project would already have less than significant
- 35 impacts on these resources. Impacts on all other resources would be similar to the proposed project (Table 36 5-1).
- 36 5 37

38 **Determination**

- 39 Alternative B2 would result in fewer impacts on air quality <u>and land use</u> than the proposed project;
- 40 however, these this impacts would remain significant under Alternative B2. Alternative B2 would reduce
- 41 the proposed project's <u>cultural resources</u>, transportation and traffic, and cumulative impacts to less than
- 42 significant. This alternative would not increase capacity of the South Orange Coast 138-kV system as
- 43 substantially as the proposed project because a new 230-kV source to South Orange County would not be
- 44 constructed.
- 45

5.2.4 Alternative B3 – Phased Construction of Alternatives B1 and B2 1 2

3 **Biological Resources**

4 Under this alternative, new ROW, as described for the proposed project, would be required within the

- boundaries of the Talega Conservation Easement. Additionally, construction may occur outside the 5
- 6 existing SDG&E ROW within the Prima Deshecha Landfill Conservation Easement. SDG&E has not
- 7 completed the proper coordination with USFWS and CDFW to determine conflicts with other HCPs and
- 8 NCCPs in the area; therefore, similar to the proposed project, impacts under this alternative would be
- 9 considered significant until SDG&E has completed the coordination requirements detailed in Section 6.2
- 10 of the SDG&E NCCP that prove otherwise. 11

12 **Cultural Resources**

- 13 Alternative B3 does not include the expansion of the existing Capistrano Substation. Therefore, the
- 14 former utility structure (historic site 30-179873) would not be demolished under this alternative as
- 15 described for the proposed project. Alternative B3 would avoid significant impacts on historic resources
- 16 when compared to the proposed project.
- 17

18 Land Use and Planning

- 19 Alternative B3 does not include the expansion of the existing Capistrano Substation. Therefore, the
- 20 construction of 45- to 50-foot-tall buildings to house new 138-kV and 230-kV equipment as described for
- the proposed project would not occur, and conflicts with local zoning height restriction would not result. 21
- 22 Alternative B3 would substantially reduce impacts on land use and planning when compared to the
- 23 proposed project. However, as discussed above under "Biological Resources," this alternative may have
- 24 significant impacts from the conflicts with applicable NCCPs and HCPs in the area. Therefore, impacts
- 25 on land use under Alternative B3 would remain significant.
- 26

27 Because Alternative B1 and B2 may both be constructed under Alternative B3, it is assumed that the same 28 number of transmission and distribution line poles may be installed as for the proposed project along 29 proposed transmission line Segments 1b and 3. Alternative B3 would result in approximately 6.4 fewer 30 acres of land disturbance than the proposed project because Capistrano Substation would not be expanded

31 (Table 2-8) and trenching would not be required along proposed transmission line Segment 2

- 32 (approximately 1.1 acres of disturbance).²⁰
- 33

34 In addition, no work would be required along proposed transmission line Segment 1a and at Talega 35 Substation. Less work would be required within the Talega Hub/Corridor because the existing lines would

- 36 not need to be relocated to allow for construction of a new 230-kV line. Work would still be required
- 37 within the Talega Hub/Corridor, however, to allow for the construction of Alternatives B1 and B2. It is
- 38 conservatively estimated that at least 16 fewer transmission line structures would be installed under
- 39
- Alternative B3, which would equate to approximately 6.6 fewer acres of land disturbance. Refer to the 40 calculation methodology described for Alternative B1. Hence, Alternative B3 would result in
- 41 approximately 14.1 fewer acres of land disturbance than the proposed project.²¹
- 42
- 43 Either Alternative B1 or B2 would be completed in less than 36 months (before 2018) instead of 64
- 44 months (mid 2020), see Table 2-6. It is unclear how much time may be required to complete both
- 45 Alternatives B1 and B2 or when the two alternatives may be operational if both alternatives are

This disturbance estimate is based on the assumption that open-cut trenching required for the installation of a single-circuit 230-kV line in new underground conduit would require a 25-foot-wide work area along Vista Montana Road for approximately 0.35 miles.

²¹ 6.6 acres + 6.4 acres + 1.1 acres = 14.1 acres

constructed. Fewer workers (less than 60 per day instead of up to 80 per day, Section 2.4.1.2) and less
 equipment would be required for the construction of Alternative B3 than the proposed project.

4 Air Quality

5 Based on the assumed disturbance acreages, the criteria pollutant emissions during construction of

- 6 Alternative B3 would be approximately 28 percent below the construction emissions for the proposed
- 7 project. While Alternative B3 would reduce impacts on air quality, Alternative B3 criteria pollutant
- 8 emissions would still exceed regional significance thresholds for ROG, NO_X , PM_{10} , and $PM_{2.5}$ prior to
- 9 mitigation. Implementation of mitigation measures described for the proposed project would reduce NO_X 10 emissions from Alternative B3 to less than significant. However, similar to the proposed project, ROG,
- 11 PM₁₀, and PM_{2.5} emissions from Alternative B3 would remain significant and unavoidable.
- 12

13 Because Alternative B3 does not include expanding the existing Capistrano Substation, the associated

- 14 significant air quality impact resulting from exceeding the SCAQMD LST at the 6.4-acre construction
- 15 site would be avoided. However, LST thresholds would still be exceeded by Alternative B3 at other
- 16 locations, and impacts would remain significant and unavoidable.
- 17

18 **Transportation and Traffic**

19 Under Alternative B3, new conductor would be installed across I-5 and SR-74. Impacts on these

20 highways from conductor stringing and construction traffic would be similar to those of the proposed

- 21 project. It is assumed that less work would occur in the vicinity of Via Pamplona under Alternative B3
- than for the proposed project because an available section of underground conduit (1,900 feet long) is
- already in place that could accommodate a new 138-kV line (Table 2-3). The installation of new
- 24 conductor may require partial closures along Via Pamplona to facilitate stringing new conductor from the
- 25 dead-end structures through the existing underground conduit; however, no full road closure is
- anticipated. Additionally, Alternative B3 does not include the expansion of the existing Capistrano
 Substation; therefore, the associated partial or full closures of Calle San Diego and Camino Capistrano
- would not occur. Alternative B3 would avoid significant impacts on transportation and traffic when
- 29 compared to the proposed project.
- 30

31 Cumulative Impacts

32 Alternative B3 does not include the expansion of the existing Capistrano Substation. Therefore, the

- associated partial closures of Camino Capistrano in the City of San Juan Capistrano that are required
- 34 under the proposed project would not occur, and the capacity of Camino Capistrano would not be
- 35 reduced. Alternative B3 would avoid a cumulatively significant impact on the performance standard of
- 36 Camino Capistrano.

3738 Other Resource Areas

- 39 Alternative B3 would reduce impacts on aesthetics, GHGs, hazardous materials, and noise as a result of
- 40 not expanding the existing Capistrano Substation, avoiding trenching along Via Montana, and
- 41 constructing fewer facilities within the same transmission corridor compared to the proposed project.
- 42 However, the proposed project would already have less than significant impacts on these resources.
- 43 Impacts on all other resources would be similar to the proposed project (Table 5-1).
- 44

45 **Determination**

- 46 Alternative B3 would result in fewer impacts on air quality and land use than the proposed project;
- 47 however, this these impacts would remain significant under Alternative B3. Alternative B3 would reduce
- 48 the proposed project's <u>cultural resources</u>, transportation and traffic, and cumulative impacts to less than
- 49 significant. This alternative would not increase capacity of the South Orange County 138-kV system as

substantially as the proposed project because a new 230-kV source to South Orange County would not be
 constructed.

4 5.2.5 Alternative B4 – Rebuild South Orange County 138-kV System

5 6 <u>Biological Resources</u>

- 7 Under this alternative, new ROW, as described for the proposed project, would be required within the
- 8 boundaries of the Talega Conservation Easement. Additionally, construction may occur outside the
- 9 existing SDG&E ROW within the Prima Deshecha Landfill Conservation Easement. SDG&E has not
- 10 completed the proper coordination with USFWS and CDFW to determine conflicts with other HCPs and
- 11 NCCPs in the area; therefore, similar to the proposed project, impacts would be considered significant
- 12 <u>until SDG&E has completed coordination requirements detailed in Section 6.2 of the SDG&E NCCP that</u>
 13 <u>prove otherwise.</u>
- 14

15 Cultural Resources

- 16 Alternative B4 includes the rebuild of 138-kV and 12-kV facilities as described for the proposed project.
- 17 These components would be located in the western side of Capistrano Substation, which would require
- 18 the former utility structure (historic site 30-179873) to be demolished under this alternative as described
- 19 <u>for the proposed project.</u>20

21 Land Use and Planning

- 22 Alternative B4 includes the rebuild of 138-kV and 12-kV facilities as described for the proposed project.
- 23 Therefore, this alternative would include construction of one 45-foot-tall 138-kV switchgear building as
- 24 described for the proposed project. Similar to the proposed project, this structure would conflict with local
- 25 zoning height restrictions (by 10 feet). Additionally, as discussed above under "Biological Resources,"
- this alternative may have significant impacts from the conflicts with applicable NCCPs and HCPs in the
- 27 area. Therefore, Alternative B4 would have similar significant impacts on land use as the proposed
- 28 <u>project.</u> 29

30 Under this alternative, substantial construction would occur to reconductor, install new structures, and

- 31 install new underground conduit along the segments of six 138-kV lines (TL13816, TL13833, TL13834,
- 32 TL13835, TL13836, and TL13846), see Section 3.2.5, "Alternative B4 Rebuild South Orange County
- 33 138-kV System." New structures and new underground conduit would be installed. In addition, new 138-
- 34 kV facilities at Capistrano Substation would still be constructed as described for the proposed project. The
- construction area and total area of disturbance would be larger for Alternative B4 than for the proposedproject.
- 36 37

38 Air Quality

- 39 Alternative B4 would increase the total amount of ground disturbance compared to the proposed project;
- 40 therefore, the criteria pollutant emissions during construction of Alternative B4 would be greater than the
- 41 construction emissions for the proposed project. Alternative B4 criteria pollutant emissions further exceed
- 42 regional significance thresholds for ROG, NO_X, PM₁₀, and PM_{2.5} prior to mitigation. Implementation of
- 43 mitigation measures described for the proposed project would reduce NOX emissions from
- 44 Alternative B4 to less than significant. However, similar to the proposed project, ROG, PM₁₀ and PM_{2.5}
- 45 emissions from Alternative B4 would remain significant and unavoidable. Additionally, if Alternative B4
- 46 were to disturb more than 58.3 acres (8 acres more than the proposed project) regional significance
- 47 thresholds for CO_2 would likely be exceeded.
- 48
- 49 Alternative B4 includes the expansion of the existing Capistrano Substation similar to the proposed
- 50 project. Therefore, Alternative B4 would result in a significant air quality impact from exceeding the

SCAQMD LST at the 6.4-acre construction site. Alternative B4 would further contribute to the
 degradation of regional air quality and exacerbate significant air quality impacts.

4 Transportation and Traffic

- 5 Under Alternative B4, new conductor would be installed across I-5 and SR-74. Impacts on these
- 6 highways from conductor stringing and construction traffic would be similar to those of the proposed
- 7 project. It is assumed that less work would occur in the vicinity of Via Pamplona under Alternative B4
- 8 than for the proposed project because an available section of underground conduit (1,900 feet long) is
- 9 already in place that could accommodate a new 138-kV line (Table 2-3). The installation of new
- 10 conductor may require partial closures along Via Pamplona to facilitate stringing new conductor from the 11 dead-end structures through the existing underground conduit; however, no full road closure is
- 11 dead-end structures through the existing underground conduit; however, no full road closure is 12 anticipated.
- 12
- 14 However, Alternative B4 includes the expansion of the existing Capistrano Substation; therefore, the
- 15 associated partial closures of Calle San Diego and Camino Capistrano would occur similar to the
- 16 proposed project. Additionally, Alternative B4 includes reconductoring of 138-kV transmission lines to
- 17 the Laguna Niguel Substation, Trabuco Substation, and Pico Substation. This additional reconductoring
- 18 would likely require additional temporary partial or full road closure or could have increased impacts to I-
- 19 5 (see Figure 3-2). Alternative B4 would increase significant impacts on transportation and traffic when
- 20 compared to the proposed project. 21

22 Cumulative Impacts

- 23 Alternative B4 includes the expansion of the existing Capistrano Substation; therefore, the associated
- 24 partial closures of Camino Capistrano in the City of San Juan Capistrano would occur similar to the
- 25 proposed project. Additionally, as discussed above, Alternative B4 includes reconductoring of 138-kV
- transmission lines to the Laguna Niguel Substation, Trabuco Substation, and Pico Substation. This
- additional reconductoring would likely result in additional cumulative impact to other street segments.
- Alternative B4 would increase the cumulatively significant impact on the performance standards of local
- 29 roadways.30

31 Other Resource Areas

32 Alternative B4 would increase biological resources, cultural resources, GHGs, hydrology, and noise as a

- result of expanding the existing Capistrano Substation and increasing the amount of reconductoring that
- 34 would occur compared to the proposed project. Impacts on all other resources would be similar to the
- 35 proposed project (Table 5-1).
- 36

37 Determination

- 38 Alternative B4 would result in impacts on air quality, <u>cultural resources</u>, transportation and traffic, and
- 39 cumulative impacts that are greater than the proposed project. This alternative would not increase
- 40 capacity of the South Orange County 138-kV system as substantially as the proposed project because a 41 new 230-kV source to South Orange County would not be constructed.
- 42

43 **5.2.6** Alternative C1 – SCE 230-kV Loop-in to Capistrano Substation

44

45 **Biological Resources**

46 <u>No new ROW or work within existing ROW located within an existing conservation easement would</u>
 47 <u>occur under this alternative. Therefore, Alternative C1 would not conflict with other HCPs and NCCPs in</u>

- 1 the proposed project area, and impacts under this alternative would be reduced compared to the proposed 2 project.
- 3

Cultural Resources

- 4 5 Alternative C1 includes the expansion of the existing Capistrano Substation; therefore, the former utility 6 structure (historic site 30-179873) would be demolished as described for the proposed project. Impacts on
- 7 historical resources under Alternative C1 would remain significant.
- 8

9 Land Use and Planning

- 10 As discussed above under "Biological Resources," this alternative would reduce conflicts with applicable
- 11 NCCPs and HCPs in the area. Therefore, Alternative C1 would substantially reduce impacts on land use.
- 12 However, Alternative C1 includes the expansion of the existing Capistrano Substation. The construction
- 13 of 45- to 50-foot-tall buildings to house new 138-kV and 230-kV equipment as described for the proposed
- 14 project would occur, and conflicts with local zoning height restrictions (by 10 to 15 feet) would result.
- 15 Therefore, impacts on land use under Alternative C1 would remain significant.
- 16
- 17 Under this alternative, a new double-circuit 230-kV line segment would not be installed between Talega
- 18 Substation and a location just south of San Juan Hills High School and the Rancho San Juan residential
- 19 development. The 230-kV line would be approximately 4 miles shorter than the proposed project.
- 20 Approximately 31 transmission structures would be installed along transmission line Segments 1a, 1b,
- 21 and 2 and a short section of Segment 3 (see Table 2-4). This would equate to approximately 12.7 acres of
- land disturbance compared to the 33.7 acres (Table 2-8) that would be disturbed if the proposed 22
- 23 transmission lines were installed (82 transmission structures). Refer to the calculation methodology described for Alternative B1.
- 24 25
- 26 It is anticipated that Alternative C1 would be completed in less than 55 months instead of approximately
- 27 64 months because the work at Talega Substation, within the Talega Hub/corridor, and along most of
- 28 transmission line Segment 3 would not be required (Table 2-6). In addition, fewer workers, less helicopter
- 29 use, and less construction equipment use would be required for the construction of Alternative C1 than
- 30 the proposed project. 31

32 Air Quality

- 33 Based on the assumed disturbance acreages, the criteria pollutant emissions during construction of
- 34 Alternative C1 would be approximately 42 percent below the construction emissions for the proposed
- 35 project. While Alternative C1 would reduce emissions of ROG to less than significant, Alternative C1
- 36 criteria pollutant emissions would still exceed regional significance thresholds for NO_X, PM₁₀, and PM_{2.5}
- 37 prior to mitigation. Implementation of mitigation measures described for the proposed project would
- 38 reduce NO_x emissions from Alternative C1 to less than significant. However, similar to the proposed
- 39 project, PM₁₀ and PM_{2.5} emissions from Alternative C1would remain significant and unavoidable.
- 40
- 41 Alternative C1 includes the expansion of the existing Capistrano Substation similar to the proposed
- 42 project. Therefore, Alternative C1 would result in a significant air quality impact from exceeding the
- 43 SCAQMD LST at the 6.4-acre construction site similar to the proposed project. 44

45 **Transportation and Traffic**

- 46 Under Alternative C1, a new double-circuit 230-kV line would be installed underground along Vista
- 47 Montana Road and would cross I-5 and SR-74 as proposed. Impacts on these highways from conductor
- 48 stringing and construction traffic would be similar to those of the proposed project. This alternative
- 49 includes partial and full road closures along Via Pamplona, Calle San Diego, and Camino Capistrano,
- 50 similar to the proposed project because trenching activities required to underground the 230 kV line in the
- 51 vicinity of Via Pamplona and the expansion of the Capistrano would occur similar to the proposed
- 1 project. Therefore, Alternative C1 would have similar significant impacts on traffic and transportation as
- 2 <u>the proposed project.</u>
- 3

4 Cumulative Impacts

- 5 Alternative C1 includes the expansion of the existing Capistrano Substation; therefore, the associated
- 6 partial closures of Camino Capistrano in the City of San Juan Capistrano would occur similar to the
- 7 proposed project. Alternative C1 would have similar cumulative impacts on the performance standards of
- 8 <u>local roadways.</u> 9

10 Other Resource Areas

- 11 Alternative C1 would reduce impacts on biological resources and cultural resources as a result of
- 12 constructing a shorter transmission line than would be constructed for the proposed project. However, the
- 13 proposed project would already have less than significant impacts on these resources. Impacts on all other
- 14 resources would be similar to the proposed project (Table 5-1).
 15

16 **Determination**

- 17 Alternative C1 would result in impacts on air quality and land use that are less than the proposed project;
- 18 however, this these impacts would remain significant under Alternative C1. Alternative C1 would have
- 19 significant impacts on biological resources, cultural resources, traffic and transportation, and cumulative
- 20 impacts, similar to the proposed project. This alternative would increase capacity of the South Orange
- County 138-kV system similar to the proposed project because a new 230-kV source to South Orange
 County would be constructed.
- 22 23 24

25

26

5.2.7 Alternative C2 – SCE 230-kV Loop-in to Capistrano Substation Routing Alternative

27 Biological Resources

- No new ROW or work within existing ROW located within an existing conservation easement would
 occur under this alternative. Therefore, Alternative C2 would not conflict with other HCPs and NCCPs in
- 30 the proposed project area and impacts would be reduced compared to the proposed project.

3132 Cultural Resources

- 33 Alternative C2 includes the expansion of the existing Capistrano Substation; therefore, the former utility
- 34 <u>structure (historic site 30-179873) would be demolished under this alternative as described for the</u>
- 35 proposed project. Similar to the proposed project, impacts on historical resources under Alternative C2
- 36 would be significant.
- 37

- 39 As discussed above under "Biological Resources," this alternative would reduce conflicts with applicable
- 40 <u>NCCPs and HCPs in the area. Therefore Alternative C2 would substantially reduce impacts on land use.</u>
- 41 <u>However, Alternative C2 includes the expansion of the existing Capistrano Substation. The construction</u>
- 42 of 45- to 50-foot-tall buildings to house new 138-kV and 230-kV equipment as described for the proposed
 43 project would occur, and conflicts with local zoning height restrictions (by 10 to 15 feet) would result.
- 45 project would occur, and conflicts with local zoning neight restrictions (by 10 to 15 feet) would 44 Therefore, impacts on land use under Alternative C2 would remain significant.
- 45
- 46 Under this alternative, a new double-circuit 230-kV line segment would not be installed between Talega
- 47 Substation and a location just south of San Juan Creek Road. The 230-kV line would be 4.5 to 5 miles
- 48 shorter than as proposed. Approximately 18 transmission structures would be installed along transmission
- 49 line Segment 1a and a section of Segment 1b. The transmission line would be installed in new
- 50 underground conduit along San Juan Creek Road. This would equate to approximately 7.39 acres of land

- 1 disturbance compared to the 33.7 acres (Table 2-8) that would be disturbed if the proposed transmission
- 2 lines were installed (82 transmission structures). Refer to the calculation methodology described for
- 3 Alternative B1.
- More land disturbance would occur for trenching along San Juan Creek Road (approximately 1 mile) than
 along Vista Montana Road (approximately 0.35 miles). This would equate to approximately 6.1 acres of
 land disturbance along San Juan Creek Road under Alternative C2 and approximately 1.6 acres of land
 disturbance along Vista Montana Road under the proposed project.²² With the additional 4.5 acres of land
 disturbance for trenching along San Juan Creek Road, Alternative C2 would still result in approximately
 21.8 fewer acres of land disturbance compared to the proposed project. In addition, helicopter use would
- 11 not be required for the construction of Alternative C2 (refer to the proposed pole sites north of site No. 11
- 12 on Figure 2-1). It is anticipated that Alternative C2 would be completed in less than 55 months instead of
- 13 approximately 64 months because the work at Talega Substation, within the Talega Hub/corridor, and
- 14 along transmission line Segment 3 would not be required (Table 2-6).
- 15

16 Air Quality

17 Based on the assumed disturbance acreages, the criteria pollutant emissions during construction of

18 Alternative C2 would be approximately 43 percent below the construction emissions for the proposed

19 project. While Alternative C2 would reduce emissions of ROG to less than significant, Alternative C2

20 criteria pollutant emissions would still exceed regional significance thresholds for NO_X , PM_{10} , and $PM_{2.5}$

21 prior to mitigation. Implementation of mitigation measures described for the proposed project would

- reduce NO_x emissions from Alternative C2 to less than significant. However, similar to the proposed project, PM_{10} and $PM_{2.5}$ emissions from Alternative C2 would remain significant and unavoidable.
- 23

Alternative C2 includes the expansion of the existing Capistrano Substation similar to the proposed
 project. Therefore, Alternative C2 would result in a significant air quality impact from exceeding the
 SCAQMD LST at the 6.4-acre construction site similar to the proposed project.

29 Transportation and Traffic

30 Under Alternative C2, a new double-circuit 230-kV line would cross I-5 and SR-74 as proposed. Impacts 31 on these highways from conductor stringing and construction traffic would be similar to those of the 32 proposed project. This alternative would include partial and full road closures along Calle San Diego and 33 Camino Capistrano because the expansion of the existing Capistrano Substation would occur similar to 34 the proposed project. Alternative C2 would not include 0.4 miles of trenching in the vicinity of Via 35 Pamplona; therefore, the significant impact on traffic and transportation would be avoided in this area. 36 However, Alternative C2 would include approximately 1 mile of trenching along San Juan Creek Road in 37 the City of San Juan Capistrano. Partial or full road closures along San Juan Creek Road would likely be 38 necessary and would create a significant impact similar to or greater than the proposed project. 39

39 40

40 Cumulative Impacts

- 41 Alternative C2 includes the expansion of the existing Capistrano Substation; therefore, the associated
- 42 partial closures of Camino Capistrano in the City of San Juan Capistrano would occur similar to the
- 43 proposed project.

²² This disturbance estimate is based on the assumption that open-cut trenching for the installation of a single 230kV circuit in new underground conduit would require a 25-foot-wide work area. Two separate trenches would be required along San Juan Creek Road (one for each 230-kV circuit), but only one would be required along Vista Montana Road because of the existing underground conduit available.

1

2 Other Resource Areas

3 Alternative C2 would increase impacts on biological resources, cultural resources, hydrology, land use,

4 and recreation as a result of the trenching in a new right-of-way (ROW) along San Juan Creek Road.

5 Impacts on all other resources would be similar to the proposed project (Table 5-1). 6

7 **Determination**

Alternative C2 would result in impacts on air quality and land use that are less than the proposed project;
however, these impacts would remain significant under Alternative C2. Alternative C2 would have
greater impacts on cultural resources and traffic and transportation compared to the proposed project. This
alternative would have a significant impact on cumulative impacts, similar to the proposed project. This
alternative would increase capacity of the South Orange County 138-kV system similar to the proposed

13 project because a new 230-kV source to South Orange County would be constructed.

5.2.8 Alternative D – SCE 230-kV Loop-in to Reduced-Footprint Substation at Landfill

17

14

18 Biological Resources

- 19 Under this alternative, construction may occur outside the existing SDG&E ROW within the Prima
- 20 Deshecha Landfill Conservation Easement. SDG&E has not completed the proper coordination with
- 21 USFWS and CDFW to determine conflicts with other HCPs and NCCPs in the area; therefore, similar to
- 22 the proposed project, impacts may be significant until the completion of SDG&E coordination
- 23 requirements detailed in Section 6.2 of the SDG&E NCCP prove otherwise.

24

25 Cultural Resources

- 26 Alternative D does not include the expansion of the existing Capistrano Substation. Therefore, the former
- 27 <u>utility structure (historic site 30-179873) would not be demolished under this alternative as described for</u>
- 28 the proposed project. Alternative D would avoid significant impacts on historic resources when compared
- 29 <u>to the proposed project.</u>30

- 32 Alternative D does not include the expansion of the existing Capistrano Substation. Therefore, the
- 33 construction of 45- to 50-foot-tall buildings to house new 138-kV and 230-kV equipment as described for
- 34 the proposed project would not occur, and conflicts with the City of San Juan Capistrano zoning height
- 35 restriction would not result.
- 36
- 37 Alternative D would construct a new substation within the Prima Deshecha Landfill. The Orange County
- 38 zoning ordinance designates the proposed location of the Landfill Substation as General Agricultural.
- 39 Section 7-9-55.3 identifies public/private utility buildings and structures as a permitted use subject to
- 40 approval of a site development permit. Section 7-9-55.8 (c) identifies a 35-foot maximum structure height
- 41 for General Agricultural. (County of Orange 2015)
- 42
- 43 The construction of the 45- to 50-foot-tall buildings to house new 138-kV and 230-kV equipment, as
- 44 described for the proposed project, at the Landfill Substation would conflict with the County of Orange
- 45 zoning height restriction. Additionally, as discussed above under "Biological Resources," this alternative
- 46 <u>may have significant impacts from the conflicts with applicable NCCPs and HCPs in the area. Therefore,</u>
- 47 <u>Alternative D would have significant impacts on land use similar to the proposed project.</u>
- 48
- 49 Under Alternative D, a new double-circuit 230-kV line segment (less than 0.25 miles long) and a new,

- 1 Chapter 3, Section 3.2.8, "Alternative D SCE 230-kV Loop In to Reduced-Footprint Substation at 2 Landfill." The combined length of transmission line segments to be constructed under this alternative
- 3 would be approximately 6.8 miles shorter than as proposed.
- 4
- 5 Approximately 8 transmission structures would be installed along transmission line Segment 3 and
- 6 approximately 0.25 miles of new ROW within Prima Deshecha Landfill. This would equate to 7 approximately 3.3 acres of land disturbance compared to the 33.7 acres (Table 2-8) that would be
- approximately 3.3 acres of land disturbance compared to the 33.7 acres (Table 2-8) that would be
 disturbed if the proposed transmission lines were installed (82 transmission structures). Refer to the
- disturbed if the proposed transmission lines were installed (82 transmission structures). Refer to the
 calculation methodology described for Alternative B1. In addition, the new 230/138/12-kV substation
- 10 would likely be smaller than the proposed 230/138/12-kV substation because only one 230/138-kV
- 11 transformer would be installed instead of two, and only one 138/12-kV transformer would be installed
- 12 instead of three. Space for a spare 230/138-kV transformer and spare 138/12-kV transformer would still
- 13 be included as proposed.
- 14
- 15 It is anticipated that Alternative D would be completed in less than 50 months instead of approximately
- 16 64 months because the work at Talega Substation, within the Talega Hub/Corridor area, and along
- 17 transmission line Segments 1a, 1b, 2, and 4 and most of transmission line Segment 3 would not be
- 18 required (Table 2-6). In addition, fewer workers, less helicopter use, and less construction equipment use
- 19 would be required for the construction of Alternative D than the proposed project. Therefore, construction
- 20 emissions would be substantially less for Alternative D than the proposed project.
- 21

22 Air Quality

- 23 Based on the assumed disturbance acreages, the criteria pollutant emissions during construction of
- Alternative D would be approximately 61 percent below the construction emissions for the proposed
- 25 project. While Alternative D would reduce emissions of ROG to less than significant, Alternative D
- 26 criteria pollutant emissions would still exceed regional significance thresholds for NOX, PM_{10} , and $PM_{2.5}$
- 27 prior to mitigation. Implementation of mitigation measures described for the proposed project would
- reduce NOX emissions from Alternative D to less than significant. However, similar to the proposed
- 29 project, PM_{10} and $PM_{2.5}$ emissions from Alternative D would remain significant and unavoidable.
- 30

31 Because Alternative D does not include expanding the existing Capistrano Substation, the associated

- significant air quality impact resulting from exceeding the SCAQMD LST at the 6.4-acre construction
 site would be avoided. However, LST thresholds would still be exceeded by Alternative D at other
- 35 site would be avoided. However, LST infestiolds would still be exceeded by Alternative D at other 34 locations, including the reduced-sized substation, and impacts would remain significant and unavoidable.
- 35

36 Transportation and Traffic

- Alternative D would use an existing 138-kV transmission line along Vista Montana. Therefore, partial
 and full road closures along Via Pamplona would not occur. Additionally, Alternative D does not include
- 39 the expansion of the existing Capistrano Substation; therefore, the associated partial and full closures of
- 40 Calle San Diego and Camino Capistrano would not occur. Alternative D would avoid significant impacts
- 41 on transportation and traffic when compared to the proposed project.
- 42
- 43 Alternative D is the Environmentally Superior Alternative for transportation and traffic (Table 5-1)
- 44 compared to the other alternatives because it would completely avoid the roads identified as having a
- 45 significant impact under the proposed project without generating new traffic impacts.
- 46

47 Cumulative Impacts

- 48 Alternative D does not include the expansion of the existing Capistrano Substation. Therefore, the
- 49 associated partial closures of Camino Capistrano in the City of San Juan Capistrano that are required

- 1 under the proposed project would not occur, and the capacity of Camino Capistrano would not be
- 2 reduced. Alternative D would avoid a cumulatively significant impact on the performance standard of
- 3 Camino Capistrano.
- 5 Alternative D is the Environmentally Superior Alternative for cumulative impacts (Table 5-1) compared
- 6 to the other alternatives because Alternative D would completely avoid the road identified as having a
- 7 cumulatively significant impact under the proposed project as well as avoiding all roads identified as
- 8 having a significant impact under the proposed project without generating new traffic impacts.

10 Other Resource Areas

Alternative D would reduce impacts on aesthetics and noise as a result of the reduced substation footprint at the Prima Deshecha Landfill, which, compared to the proposed project, would be in a more rural area than the Capistrano Substation. Alternative D would increase impacts on hazardous materials and land use from the construction of a 230-kV substation within an actively operating landfill. Impacts on all

15 other resources would be similar to the proposed project (Table 5-1).

1617 Determination

- 18 Alternative D would result in less impacts on air quality than the proposed project; however, impacts on
- 19 air quality would remain significant under Alternative D. <u>Alternative D would have similar significant</u>
- 20 impacts on biological resources, cultural resources, and land use. Alternative D would reduce the
- 21 proposed project's transportation and traffic and cumulative impacts to less than significant. This
- alternative would increase capacity of the South Orange County 138-kV system similar to the proposed
 project because a new 230-kV source to South Orange County would be constructed.
- 23

5.2.9 Alternative E – New 230-kV Talega–Capistrano Line Operated at 138 kV

25 26

27 Biological Resources

- 28 Under this alternative, new ROW, as described for the proposed project, would be required within the
- 29 <u>boundaries of the Talega Conservation Easement. Additionally, construction may occur outside the</u>
- 30 existing SDG&E ROW within the Prima Deshecha Landfill Conservation Easement. SDG&E has not
- 31 completed the proper coordination with USFWS and CDFW to determine conflicts with other HCPs and
- 32 NCCPs in the area; therefore, similar to the proposed project, impacts would be considered significant
- 33 until SDG&E has completed coordination requirements detailed in Section 6.2 of the SDG&E NCCP that
 34 prove otherwise
- 34 prove otherwise.35

36 Cultural Resources

- 37 Alternative E does not include the expansion of the existing Capistrano Substation. Therefore, the former
- 38 <u>utility structure (historic site 30-179873) would not be demolished under this alternative as described for</u>
- 39 the proposed project. Alternative E would avoid significant impacts on historic resources when compared
- 40 to the proposed project.
- 41

- 43 Alternative D does not include the expansion of the existing Capistrano Substation. Therefore, the
- 44 construction of 45- to 50-foot-tall buildings to house new 138-kV and 230-kV equipment as described for
- 45 the proposed project would not occur, and conflicts with local zoning height restriction would not result.
- 46 Alternative D would substantially reduce impacts on land use and planning when compared to the
- 47 proposed project. However, as discussed above under "Biological Resources," this alternative may have
- 48 significant impacts from the conflicts with applicable NCCPs and HCPs in the area. Therefore, impacts
- 49 on land use under Alternative D would remain significant.
- 50

1 Under this alternative, San Juan Capistrano Substation would not be constructed, and a new double-circuit

- 2 230-kV line segment would not be installed between Capistrano Substation and San Juan Hills High
- 3 School as proposed. The proposed double-circuit 230-kV line would be constructed between Talega
- 4 Substation and the San Juan Hills High School and Rancho San Juan residential development area (Figure
- 5 3-4) but would be operated at 138 kV rather than 230 kV. The new 230-kV line would be approximately
- 6 3 miles shorter than the proposed 230-kV line.

8 Approximately 57 transmission structures would be installed along transmission line Segments 3 and 4

9 (see Table 2-4). The proposed distribution line work would not be required. This would equate to

10 approximately 23.4 acres of land disturbance compared to the 33.7 acres (Table 2-8) that would be

disturbed if the proposed transmission and distribution lines were installed. This equates to approximately
 10 fewer acres of disturbance. Refer to the calculation methodology described for Alternative B1.

12 13

14 Given the reduced land disturbance associated with the proposed poles and considering that the proposed

15 San Juan Capistrano Substation would not be constructed (6.4 acres), the combined components of

- 16 Alternative E would result in approximately 16.4 fewer acres of land disturbance than the proposed
- 17 project. In addition, fewer workers, less helicopter use, and less construction equipment use would be
- 18 required for the construction of Alternative E than the proposed project.
- 19

20 Air Quality

21 Based on the assumed disturbance acreages, the criteria pollutant emissions during construction of

Alternative E would be approximately 33 percent below the construction emissions for the proposed

23 project. While Alternative E would reduce impacts on air quality, Alternative E criteria pollutant

emissions would still exceed regional significance thresholds for ROG, NO_X, PM₁₀, and PM_{2.5} prior to

25 mitigation. Implementation of mitigation measures described for the proposed project would reduce NO_X

26 emissions from Alternative E to less than significant. However, similar to the proposed project, ROG,

- $\label{eq:27} PM_{10} \text{ and } PM_{2.5} \text{ emissions from Alternative E would remain significant and unavoidable.}$
- 28

29 Because Alternative E does not include expanding the existing Capistrano Substation, the associated

30 significant air quality impact resulting from exceeding the SCAOMD LST at the 6.4-acre construction

significant an quarty impact resulting non exceeding the SCAQWD LST at the 0.4-acte construct site would be avoided. However, LST thresholds would still be exceeded by Alternative E at other

32 locations, and impacts would remain significant and unavoidable.

33

34 Transportation and Traffic

Under Alternative E, new conductor would be installed across I-5 and SR-74. Impacts on these highways from conductor stringing and construction traffic would be similar to those of the proposed project. It is

- assumed that less work would occur in the vicinity of Via Pamplona under Alternative E than for the
- 37 assumed that less work would occur in the vicinity of via Pampiona under Alternative E than for the 38 proposed project because an available section of underground conduit (1,900 feet long) is already in place
- that could accommodate a new 138-kV line (Table 2-3). The installation of new conductor may require
- 40 partial closures along Via Pamplona to facilitate stringing new conductor from the dead-end structures
- 40 partial closures along via rampiona to facilitate stringing new conductor from the dead-end structures 41 through the existing underground conduit; however, no full road closure is anticipated. Additionally,
- 41 Information of the existing underground conduct, nowever, no run road closure is anticipated. Additionary 42 Alternative E does not include the expansion of the existing Capistrano Substation; therefore, the
- 42 Anternative E does not include the expansion of the existing Capistrano Substation, increase, t 43 associated partial or full closures of Calle San Diego and Camino Capistrano would not occur.
- 44 Alternative E would avoid significant impacts on transportation and traffic when compared to the
- 45 proposed project.
- 46

47 Cumulative Impacts

- 48 Alternative E does not include the expansion of the existing Capistrano Substation. Therefore, the
- 49 associated partial closures of Camino Capistrano in the City of San Juan Capistrano that are required

1 under the proposed project would not occur, and the capacity of Camino Capistrano would not be

- 2 reduced. Alternative E would avoid a cumulatively significant impact on the performance standard of
- 3 Camino Capistrano.
- 4

5 **Other Resource Areas**

- 6 Alternative E would reduce impacts on aesthetics, cultural resources, geology and soils, GHGs, hazardous
- 7 materials, and noise as a result of not expanding the existing Capistrano Substation, avoiding trenching
- 8 along Via Montana, and construction of a shorter transmission line compared to the proposed project.
- 9 However, the proposed project would already have less than significant impacts on these resources.
- 10 Impacts on all other resources would be similar to the proposed project (Table 5-1).
- 11

12 Determination

- 13 Alternative E would result in fewer impacts on air quality and land use than the proposed project;
- 14 however, this these impacts would remain significant under Alternative E. Alternative E would reduce the
- 15 proposed project's <u>cultural resources</u>, transportation and traffic, and cumulative impacts to less than
- 16 significant. This alternative would not increase capacity of the South Orange County 138-kV system as
- 17 substantially as the proposed project because a new 230-kV source to South Orange County would not be
- 18 constructed.

19

20 **5.2.10 Alternative F – 230-kV Rancho Mission Viejo Substation** 21

22 Biological Resources

23 Under this alternative, new ROW would be required within the boundaries of Rancho Mission Viejo

- 24 conservation easements. SDG&E has not completed the proper coordination with USFWS and CDFW to
- 25 determine conflicts with other HCPs and NCCPs in the area; therefore, similar to the proposed project.
- 26 <u>impacts would be considered significant until SDG&E has completed coordination requirements detailed</u> 27 in Section (22 of the SDC & E NGCP that around the minutes)
- 27 in Section 6.2 of the SDG&E NCCP that prove otherwise.

28

29 Cultural Resources

- Alternative F does not include the expansion of the existing Capistrano Substation. Therefore, the former
 utility structure (historic site 30-179873) would not be demolished under this alternative as described for
- the proposed project. Alternative F would avoid significant impacts on historic resources when compared
- 33 to the proposed project.
- 34

- 36 Alternative F does not include the expansion of the existing Capistrano Substation. Therefore, the
- 37 construction of 45- to 50-foot-tall buildings to house new 138-kV and 230-kV equipment as described for
- 38 the proposed project would not occur, and conflicts with local zoning height restriction would not result.
- 39 Alternative F would substantially reduce impacts on land use and planning when compared to the
- 40 proposed project. However, as discussed above under "Biological Resources," this alternative may have
- 41 significant impacts from the conflicts with applicable NCCPs and HCPs in the area. Therefore, impacts
- 42 on land use under Alternative F would remain significant.
- 43
- 44 Under Alternative F, a new double-circuit 230-kV line that follows the route of TL13831 would be
- 45 constructed that is approximately 1 mile shorter than the 230-kV route for the proposed route. New ROW
- 46 would be required, however, to widen the existing 138-kV ROW between Talega and Rancho Mission
- 47 Viejo substations (approximately 6.5 miles long and 20 feet wide), which would result in more land
- 48 disturbance than the propose route within existing ROW. It is assumed that additional land disturbance
- 49 would be required for the installation of new 138-kV facilities and 138-kV reconductoring to make use of

1 the additional power that would be available from an upgraded 230/138/12-kV Rancho Mission Viejo

2 Substation. In addition, the expansion of Rancho Mission Viejo Substation would require a similar

amount of land disturbance compared to the construction of San Juan Capistrano Substation.

5 Air Quality

6 Alternative F would increase the total amount of ground disturbance compared to the proposed project;

7 therefore, the criteria pollutant emissions during construction of Alternative F would be greater than the

8 construction emissions for the proposed project. Alternative F criteria pollutant emissions further exceed

9 regional significance thresholds for ROG, NO_X , PM_{10} , and $PM_{2.5}$ prior to mitigation. Implementation of

10 mitigation measures described for the proposed project would reduce NO_X emissions from Alternative F 11 to less than significant. However, similar to the proposed project, ROG, PM_{10} and $PM_{2.5}$ emissions from

11 to less than significant. However, similar to the proposed project, ROG, PM_{10} and $PM_{2.5}$ emissions from 12 Alternative F would remain significant and unavoidable.

12

14 The associated significant air quality impact resulting from exceeding the SCAQMD LST at this site 15 would still occur under Alternative F.

16

17 **Transportation and Traffic**

18 Under Alternative F, new conductor would be installed across SR-74. Impacts on this highway from

19 conductor stringing and construction traffic would be similar to those of the proposed project.

20 Alternative F would not include 0.4 miles of trenching in the vicinity of Via Pamplona; therefore, the

21 significant impact on traffic and transportation would be avoided in this area. Additionally, Alternative F

22 does not include the expansion of the existing Capistrano Substation; therefore, the associated partial

23 closures of Calle San Diego and Camino Capistrano would not occur. Alternative F would avoid

significant impacts on transportation and traffic when compared to the proposed project.

25

However, Alternative F could result in localized traffic impacts in the vicinity of the Rancho MissionViejo Substation.

28

29 Cumulative Impacts

30 Alternative F does not include the expansion of the existing Capistrano Substation. Therefore, the

31 associated partial closures of Camino Capistrano in the City of San Juan Capistrano that are required 32 under the proposed project would not be comparing Capistrano would not be

32 under the proposed project would not occur, and the capacity of Camino Capistrano would not be 33 reduced. Alternative F would avoid a cumulatively significant impact on the performance standard of

- 34 Camino Capistrano.
- 35

36 Other Resource Areas

37 Alternative F would reduce impacts on noise as a result of expanding the Rancho Mission Viejo

38 Substation, which compared to the Capistrano Substation, is in a rural area. Alternative F would increase

impacts on agriculture, biological resources, cultural resources, geology and soils, and GHGs as a result

40 of building a transmission line through a less disturbed and accessible ROW. Impacts on all other

- 41 resources would be similar to the proposed project (Table 5-1).
- 42

43 **Determination**

44 Alternative F would result in impacts on air quality that are greater than the proposed project. <u>Impacts on</u>

- 45 <u>biological resources would be similar to the proposed project, and impacts on land use would be reduced</u>
- 46 <u>under this alternative. However, impacts on land use would remain to be significant.</u> Alternative F would
- 47 reduce the proposed project's <u>cultural resources</u>, transportation and traffic, and cumulative impacts to less
- 48 than significant. This alternative would not increase capacity of the South Orange County 138-kV system

as substantially as the proposed project because a new 230-kV source to South Orange County would not be constructed.

5.2.11 Alternative G – New 138-kV San Luis Rey–San Mateo Line and San Luis Rey Substation Expansion

Biological Resources

8 Under this alternative, new ROW, as described for the proposed project, would be required within the

9 <u>Talega Conservation Easement. Additionally, construction may occur outside the existing SDG&E ROW</u> 10 within the Prima Deshecha Landfill Conservation Easement. SDG&E has not completed the proper

within the Prima Deshecha Landfill Conservation Easement. SDG&E has not completed the proper
 coordination with USFWS and CDFW to determine conflicts with other HCPs and NCCPs in the area;

12 therefore, similar to the proposed project, impacts would be considered significant until SDG&E has

13 completed coordination requirements detailed in Section 6.2 of the SDG&E NCCP that prove otherwise.

14

1

2

3 4

5

6 7

15 Under Alternative G, the applicant would still expand Capistrano Substation as proposed but would not

16 install the proposed 230-kV components (SCE 2012). A similar amount of land disturbance would still

17 occur at the proposed substation site. A new 138-kV line would be constructed between San Luis Rey

18 Substation and San Mateo Substation that would be approximately 12 miles longer than the proposed line

between Talega Substation and Capistrano Substation. Instead of the proposed 82 transmission line

20 structures along a 7.8-mile-long route, more than 250 new structures would be installed. This would

equate to approximately 102.7 acres of land disturbance compared to the 33.7 acres (Table 2-8) that

would be disturbed if the proposed transmission lines were installed. Refer to the calculation

23 methodology described for Alternative B1.24

25 In addition, more workers, more helicopter use, and more construction equipment use would be required

26 under this alternative. Therefore, construction emissions would be substantially greater under

27 Alternative G than the proposed project.

2829 Air Quality

30 Alternative G would increase the total amount of ground disturbance compared to the proposed project;

- 31 therefore, the criteria pollutant emissions during construction of Alternative G would be greater than the
- 32 construction emissions for the proposed project. Alternative G criteria pollutant emissions further exceed
- regional significance thresholds for ROG, NO_X , PM_{10} , and $PM_{2.5}$ prior to mitigation. Implementation of mitigation measures described for the proposed project would reduce NO₂ emissions from Alternative C
- mitigation measures described for the proposed project would reduce NO_X emissions from Alternative G to less than significant. However, similar to the proposed project, ROG, PM_{10} and PM_{25} emissions from
- 35 to less than significant. However, similar to the proposed pro 36 Alternative G would remain significant and unavoidable.
- 30 37
- The associated significant air quality impact resulting from exceeding the SCAQMD LST at this site would still occur under Alternative G.
- 40

41 Cultural Resources

- 42 Alternative G includes the rebuild of 138-kV and 12-kV facilities as described for the proposed project.
- 43 These components would be located in the western side of Capistrano Substation, which would require
- 44 the former utility structure (historic site 30-179873) to be demolished under this alternative as described
- 45 for the proposed project. Similar to the proposed project, impacts on historical resources under
- 46 <u>Alternative G would be significant.</u>

- 49 Alternative G includes the rebuild of 138-kV and 12-kV facilities as described for the proposed project.
- 50 Therefore, this alternative would include construction of one 45-foot-tall 138-kV switchgear building as

described for the proposed project. Similar to the proposed project, this structure would conflict with local zoning height restrictions (by 10 feet). Additionally, as discussed above under "Biological Resources," this alternative would have significant impacts from the conflicts with applicable NCCPs and HCPs in the area. Therefore, Alternative G would have similar significant impacts on land use as the proposed project.

5

6 Transportation and Traffic

Under Alternative G, new conductor would be installed across I-5 and SR-74. Impacts on these highways
 from conductor stringing and construction traffic would be similar to those of the proposed project. It is

9 assumed that less work would occur in the vicinity of Via Pamplona under Alternative G than for the

10 proposed project because an available section of underground conduit (1,900 feet long) is already in place

11 that could accommodate a new 138-kV line (Table 2-3). The installation of new conductor may require

12 partial closures along Via Pamplona to facilitate stringing new conductor from the dead-end structures

13 through the existing underground conduit; however, no full road closure is anticipated.

14

15 However, Alternative G includes the expansion of the existing Capistrano Substation; therefore, the

- 16 associated partial closures of Calle San Diego and Camino Capistrano would occur similar to the
- 17 proposed project. Additionally, Alternative G includes reconductoring of 138-kV transmission lines

18 between San Mateo Substation and San Luis Rey Substation, which are approximately 20 miles apart.

19 This additional reconductoring would likely require additional temporary partial or full road closures or

20 could have increased impacts to I-5 (see Figure 3-2). Alternative G would increase significant impacts on

21 transportation and traffic when compared to the proposed project.

23 Cumulative Impacts

24 Alternative G includes the expansion of the existing Capistrano Substation; therefore, the associated

25 partial closures of Camino Capistrano in the City of San Juan Capistrano would occur similar to the

- 26 proposed project. Additionally, as discussed above, Alternative G includes reconductoring of 138-kV
- 27 transmission lines between San Mateo Substation and San Luis Rey Substation, which are approximately
- 28 20 miles apart. This additional reconductoring would likely result in additional cumulative impact to other
- 29 street segments. Alternative G would increase the cumulatively significant impact on the performance
- 30 standards of local roadways.31

32 Other Resource Areas

33 With the exception of agriculture and population and housing, Alternative G would increase impacts on

all resources as a result of increasing the amount of reconductoring that would occur compared to theproposed project (Table 5-1).

35 proposed project (Table 5-1).36

37 **Determination**

38 Alternative G would result in impacts on air quality, transportation and traffic, and cumulative impacts

- that are greater than the proposed project. <u>Impacts on biological resources, cultural resources, and land</u>
- 40 <u>use and planning would be similar to the proposed project.</u> This alternative would not increase capacity of
- 41 the South Orange County 138-kV system as substantially as the proposed project because a new 230-kV
- 42 source to South Orange County would not be constructed.
- 43

1 5.2.12 Alternative J – SCE 230-kV Loop-in to Trabuco Substation

2	
3	Under this alternative, the applicant's 138/12-kV Trabuco Substation would be expanded to a 230/138/12-
4	kV substation with specifications comparable to those of the proposed project's new San Juan Capistrano
5	Substation The substation expansion would use the an existing 2-acre AT&T parking lot located adjacent
6	to the north side of the existing Trabuco Substation to house new 230/138kV equipment
7	to the north side of the existing fraduco Substation to house new 250/150KV equipment.
0	A new 220 LV second of new would be added to the South Orange County 120 LV sustern by loaning
ð	A new 230-KV source of power would be added to the South Orange County 138-KV system by looping
9	Southern California Edison's (SCE's) Songs-Santiago 230-kV transmission system into the Trabuco
10	Substation. Preliminarily, this "loop-in" circuit would be accomplished by constructing a new
11	underground double circuit 230-kV line from the north along Camino Capistrano or from the east several
12	hundred feet north of Crown Valley Parkway (Figure 3-5). The easterly route would require a crossing of
13	I-5, similar to the proposed project. The new underground 230-kV double circuit transmission line would
14	require new ROW under either routing option.
15	
16	Existing infrastructure in the AT&T parking lot would be removed, and civil work would be conducted to
17	establish a new pad for the 230/138-kV equipment. New equipment would include support structures for
18	the 230-kV double circuit transmission line a 230-kV bus two 230-kV circuit breakers two 230/138-kV
19	transformers (one required and one spare) a 138-kV circuit breaker and a new 80- x 40-foot control
20	huilding. New substation componentry would be set back from the perimeter of the percel by at least 20
20	fact (Figure 2.5) A small switchward would be constructed to loop SCE's Sontiago SONGS 220 kV line
$\frac{21}{22}$	<u>into the Trabuce Substation</u> . The existing 128/12 hV substation equipment would not be modified, with
22	the quantizer of compacting the new 128 bW singuit busher and intercompacting has weak to the quipting
23	the exception of connecting the new 158-KV circuit breaker and interconnecting bus work to the existing
24	<u>138-KV system.</u>
25	
26	The SDG&E South Orange County 138-kV System would not require any reconductoring under this
27	alternative. The Capistrano Substation would not be expanded, but equipment at Capistrano Substation
28	found to be inadequate would be replaced. The distribution circuit 315 (12-kV) would not be relocated.
29	
30	<u>Air Quality</u>
31	Based on the assumed disturbance acreages, the criteria pollutant emissions during construction of
32	Alternative I would be approximately 88 percent below the construction emissions for the proposed
32	project. Alternative I would reduce emissions of ROG NOX PM., and PM., to less than significant
34	levels. Implementation of mitigation measures described for the proposed project would further reduce
25	evers. Implementation of mitigation measures described for the proposed project would further reduce
36	emissions of criteria ponutants resulting from the construction of Alternative J.
27	Decause Alternative I does not include expanding the existing Conjecture Sylectetion, the associated
20	<u>Because Anternative J does not include expanding the existing Capistrano Substation, the associated</u>
20	significant air quanty impact that would result from exceeding the SCAQWID LST at the 6.4-acre
39	construction site would be reduced but would likely remain significant under Alternative J. Alternative J
40	is the Environmentally Superior Alternative for air quality (Table 5-1) compared to the other alternatives
41	because it would not exceed significance thresholds for any criteria air pollutant and would reduce
42	localized significant air impacts.
43	
44	Biological Resources
45	Under Alternative J, project componentry would mostly be installed in previously disturbed areas. Land
46	set aside for conservation under an existing HCP or NCCP would not be affected. Confining the
47	construction to mostly previously disturbed areas would significantly decrease the amount of disturbance,
48	which in turn would reduce the potential for impacts on biological resources. Therefore, impacts on
49	biological resources would be reduced when compared to the proposed project.

1	Alternative J is the Environmentally Superior Alternative for biological resources (Table 5-1) compared
2	to the other alternatives because it would only require about 6 acres of ground disturbance, mostly in
3	previously disturbed areas. Alternative J does not require mitigation credits from the SDG&E NCCP and
4	would not impact any conservation area designated by other NCCPs or HCPs in the area.
5	
6	Cultural Resources
7	Alternative J does not include the expansion of the existing Capistrano Substation. Therefore, the former
8	utility structure (historic site 30-179873) would not be demolished under this alternative as described for
9	the proposed project. Alternative J would avoid significant impacts on historic resources when compared
10	to the proposed project.
11	
12	Alternative J is the Environmentally Superior Alternative for cultural resources (Table 5-1) compared to
13	the other alternatives because the proposed substation would be constructed on previously disturbed areas
14	and would require a shorter length of transmission line work than any other alternatives, which reduces
15	the likeliness of the unanticipated discovery of cultural resources.
16	
17	Land Use and Planning
18	As discussed above under "Biological Resources," this alternative would avoid conflicts with applicable
19	NCCPs and HCPs in the area. Therefore Alternative C2 would substantially reduce impacts on land use.
20	
21	Alternative J does not include the expansion of the existing Capistrano Substation. Therefore, the
22	construction of 45- to 50-foot-tall buildings to house new 138-kV and 230-kV equipment as described for
23	the proposed project would not occur, and conflicts with the City of San Juan Capistrano zoning height
24	restriction would not result. However, Alternative J would expand the existing Trabuco Substation. The
25	Laguna Niguel zoning ordinance designates the Trabuco Substation and the existing AT&T parking lot to
26	the north of the substation as Business Park. Table 4.1 under Section 9-1-42 of the Laguna Niguel zoning
27	ordinance specifics permitted uses within nonresidential districts and identifies Public Utility Facilities as
28	a permitted use in Business Park. Table 4.2 under Section 9-1-43.1 of the Laguna Niguel zoning
29	ordinance sets forth standards for development of property within nonresidential districts and identifies a
30	45-foot maximum structure height for Business Park. (City of Laguna Niguel 2014)
31	
32	The construction of the 50-foot-tall building to house the new 230-kV gas insulated substation equipment
33	at the Trabuco Substation, as described for the proposed project, would conflict with the City of Laguna
34	Niguel zoning height restriction (by 5 feet). Therefore, a significant impact on land use would remain
35	under this alternative.
36	
37	Alternative J is the Environmentally Superior Alternative for land use (Table 5-1) compared to the other
38	alternatives because only one of the proposed structures on the substation would conflict with local height
39	restrictions and only by 5 feet, which is less than the other alternatives. Additionally, as described under
40	"Biological Resources," this alternative would avoid conflicts with applicable NCCPs and HCPs in the
41	area.
42	
43	Transportation and Traffic
44	Under Alternative J, new conductor may be installed across I-5, and impacts on this highway from
45	conductor stringing and construction traffic, would be similar to those of the proposed project. The
46	installation of new conductor may require partial closures along Camino Capistrano in an industrial area
47	of the City of Laguna Niguel; however, no full road closures are anticipated. Additionally, Alternative J
48	does not include the expansion of the existing Capistrano Substation; therefore, the associated partial or
49	full closures of Calle San Diego and Camino Capistrano (in the city of San Juan Capistrano) would not

San Juan Hill High School would be avoided. Therefore, Alternative J would avoid significant impacts on
 transportation and traffic when compared to the proposed project.

2 transportation and traffic when compared to the proposed project.

4 Cumulative Impacts

- 5 Alternative J does not include the expansion of the existing Capistrano Substation; therefore, the
- associated partial closures of Camino Capistrano in the City of San Juan Capistrano would not occur and
 significant cumulative impacts would be avoided.
- 8 significant cumulative impacts would be avoide

9 **Determination**

10 Alternative J would result in fewer impacts on air quality and land use and planning than the proposed

11 project; however, impacts on air quality and land use and planning would remain significant. Alternative J

12 would reduce impacts on cultural resources, air quality, transportation and traffic, and cumulative impacts

13 to less than significant. This alternative would increase capacity of the South Orange County 138-kV

14 system similar to the proposed project because a new 230-kV source to South Orange County would be

15 <u>constructed.</u> 16

17 **5.3 Environmentally Superior Alternative**

18

19 The No Project Alternative (Alternative A, Section 5.2.1) would be environmentally superior for all 20 environmental resources. The No Project Alternative would be feasible and would meet most of the basic 21 objectives of the proposed project (Section 3.2.1.2, "No Project Alternative and Objectives of the 22 Proposed Project"). However, when the Environmentally Superior Alternative is the No Project 23 Alternative, CEQA requires the identification of an Environmentally Superior Alternative among the 24 other alternatives (CEQA Guidelines Section 15126.6). Therefore, based on the analysis presented in this 25 chapter, both Alternative B1 and Alternative D were Alternative J was found to be an the Environmentally 26 Superior Alternative compared to the proposed project and to the other alternatives for the following

27 reasons:

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- Both alternatives<u>Alternative J</u> would substantially reduce <u>air quality emissions when compared to</u> the proposed project's air emissions.
- <u>Alternative J would reduce significant impacts from conflicts with applicable NCCPs and HCPs to less than significant.</u>
- Alternative J would reduce significant impacts on historic resources to less than significant.
- Both alternatives<u>Alternative J</u> would reduce significant impacts on transportation and traffic to less than significant.
 - <u>Both alternatives Alternative J</u> would reduce significant cumulative impacts to less than significant.
- 39 Alternative B1 is identified in Table 5-1 as the Environmentally Superior Alternative for air quality
- 40 because it would reduce the proposed project air emissions more than all other alternatives (62 percent).
- 41 However, Alternative D would reduce the proposed project air emissions by 61 percent. The difference of
- the percentage is negligible, and therefore, impacts on air quality are considered equivalent under both
 alternatives.
- 44
- 45 Alternative D is identified in Table 5-1 as the Environmentally Superior Alternative for transportation and
- 46 traffic as well as cumulative impacts on transportation and traffic because it would completely avoid the
- 47 roads identified as having a significant impact under the proposed project without generating new traffic
- 48 impacts. Alternative B1 may result in minor trip generation along Via Pamplona as well as a short term

- 1 partial closure of Via Pamplona, however these impacts would be negligible and therefore, impacts on
- 2 transportation and traffic as well as cumulative impacts are considered equivalent under both alternatives.

3.0 List of Preparers

A consultant team headed by Ecology and Environment, Inc., prepared this document under the direction of the California Public Utilities Commission. The preparers and technical reviewers of this document are presented below.

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4.0 References

- 2 The following references have been added to the Recirculated Draft EIR.3
- 4 <u>City of Laguna Niguel. 2014. Code of Ordinances. Supplement 15. Last updated October 22,</u>
 5 <u>2014.</u>
 6

County of Orange. 2015. Code of Ordinances. Supplement 125. Last updated May 29, 2014.

9 Snyder, Jonathan. 2015. USFWS, Carlsbad Fish and Wildlife Office, CA, Division Chief. In 10 person. Meeting in San Diego, CA with Lara Rachowicz and Bonny O'Connor, Ecology
 11 <u>& Environment Inc., San Francisco, CA, on June 25, 2015.</u>

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